

INFORMATION BROCHURE

For Admission to:

First Year Degree Course in

Engineering/Technology/Architecture/

Medicine/Dentistry/Pharmacy

and

Lateral Admission to

Second Year (Third Semester)

Engineering/Technology/

Pharmacy/Architecture

and

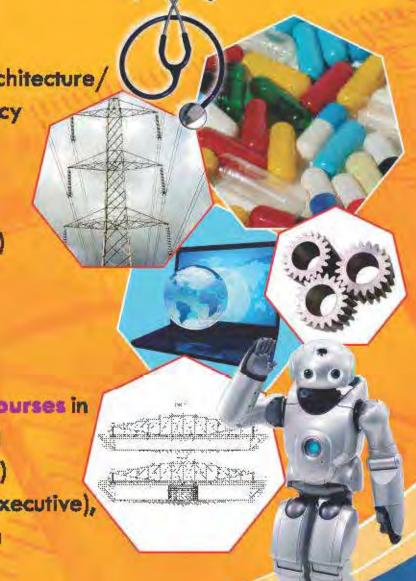
First Year Masters Degree Courses in

Computer Application (MCA)

Business Administration (MBA)

PGDM, PGCM and PGDM (Executive),

M.Tech. M.Pharm and M.Arch



PROGRAMME FOR JOINT ENTRANCE EXAMINATION - 2012, ODISHA

Entrance	Entrance Test for B.Tech / B.Tech(Lateral Entry) / B.Arch./B.Arch.(Lateral Entry) / MBBS / BDS /										
	B.Pharm/ B.Pharm(Lateral Entry) / PGAT for M	.Tech/M.Arch and M.Pharm									
	MCA/MBA/PGDM/PGCM/PGDM(Executive).										
	1 st Citting										

Date		1 st Sitting		2 nd Sitting
	9.00 AM to 11.00 AM	9.00 AM to 12.00 Noon		2.30 PM to 4.30 PM
06.05.2012 (Sunday)	Physics & Chemistry / +3 Sc. or B. Sc. Paper – I PGAT(M.Tech / M.Arch/ M.Pharm)	MCA	Mathematics	Biology / Entrance Test for [MBA/ PGDM/ PGCM/ PGDM (Executive)]/ +3 Sc. or B. Sc. Paper - II / Diploma Test (Engineering / Technology / Pharmacy)
ÞÚSTÜSJТÞU Ф)! è° d5Ø	{ å â ັ NÒo S ; d – ë Ø			

The salient features of The Orissa Professional Educational Institutions (Regulation of Admission and Fixation of Fee) Act, 2007 are as follows.

- * Methods of admission in technical and professional educational institutions: Subject to provisions of this Act, admission of students in all the technical and private professional educational institutions, Government institutions and sponsored institutions to all seats including lateral entry seats, shall be made through JEE conducted by the Policy Planning Body followed by counselling in order of merit, in accordance with such procedure as recommended by the said body and approved by the Government of Odisha.
- * Reservation of seats: In a private professional educational institution other than minority institution not exceeding 5% of the approved intake may be filled up by NRI from the merit list prepared on the basis of OJEE 2012 as per AICTE (Approval Process Handbook 2012-2013) guideline issued in this regard.

Where any shortfall in filling up of seats from NRI occurs, such vacant seats may be filled up from the merit list of All India Engineering Entrance Examination (AIEEE) or All India Medical Entrance Examination, as the case may be, conducted by Central Board of Secondary Education: Provided that while filling up such vacant seats NRI shall be preferred. In a private professional educational institution 15% of the approved in take may be filled up strictly from the merit list of All India Engineering Entrance Examination or All India Medical Entrance Examination, as the case may be, conducted by Central Board of Secondary Education.

* Prohibition of Capitation fee: No capitation fee shall be collected by a professional educational institution, sponsored institution or by any person who is in charge of the management of such institution, from any candidate in consideration of his admission to or continuance in any course of study or his promotion to higher class, in such institution under the management.

Where the Policy Planning Body on receipt of any complaint or is otherwise satisfied that the management of such institution or any person who is in charge of the management of such institution has contravened the provisions of the previous section / para, the Body may, after making due enquiry in the manner prescribed, recommend to the Government for imposition of fine not exceeding Rupees Ten Lakhs against the management of such institution for such contravention.

ODISHA JOINT ENTRANCE EXAMINATION – 2012 IMPORTANT NOTE

The candidate as well as the parents should read this information brochure carefully before filling up the OMR application form.

If the OMR application form is not filled correctly by the candidate, his/her candidature will summarily be rejected.

IMPORTANT NOTES FOR THE APPLICANT

- Permanent nativity certificate is mandatory for taking admission against any reserve category like: Schedule Caste (SC), Schedule Tribe (ST), children/widows of Ex-Servicemen (ES), Physically Challenged (PC), Women (WO), Green Card (GC), Tuition Fee Waiver (TFW) and Lateral Entry (LE) in all courses. Permanent nativity certificate is to be produced at the time of document verification during counselling. All such applicants are required to keep the up-to-date nativity certificate ready well in advance before counselling.
- Mark sheet and Certificate/Provisional Certificate of the qualifying examination must be produced on the day of document verification at the nodal center, without which the applicant will not be allowed to participate in the counselling process.
- 3. The application form for OJEE-2012 can be purchased from Banks and Post offices and completed application form should be submitted to OJEE office through the banks, post offices or by post/speed post/regd. Post/courier. However the candidate may also apply online which can be filled directly in the website of OJEE-2012 that is www.odishajee.com which will open from a specific date to be notified separately.
- Top portion of the application form [Optical Mark Reader (OMR) Sheet] will be processed by a machine. The machine picks up only dark marks. Therefore, appropriate circles should be darkened using HB pencil or Black/Blue ball point pen only.
- 5. Applicant should provide the required information by writing in capital letters/numerals in the boxes above the circles (wherever provided) and then darken the appropriate circle under each of them. Writing in the boxes is only for the candidate's guidance to darken the corresponding correct circle. The candidate should ensure that darkening in the correct circle must be done, as he/she is solely responsible for any error in darkening the circles.
- Applicant should not scribble, smudge, cut, tear, or wrinkle the application form and should not put any stray marks anywhere on the application form.
- 7. Photograph, signature and address of the applicant are to be scanned by another machine that recognizes only good quality images, and from the specified areas of the form. Therefore, the applicant should paste a recent black & white (not older than 2 months) photograph in the space provided. The applicant should write her/ his address and sign in Black/Blue ball point pen only in the space provided.
- 8. Applicant should write the complete **Postal Address** clearly giving his/her **Name** and **PINCODE** carefully and legibly with Black / Blue ball point pen only. If a mistake is done, the candidate should cover the whole box with an exact size white paper slip and write her/his address on it. The candidate address must not overflow this box. If possible, the address may be typed on a slip not larger than the box and be pasted neatly within the box.
- The candidate should not fold the application form other than the folding(s) provided. The candidate should not put any pin or staple anywhere in the application form. He/she has to paste only the photograph and nothing else on the form.
- 10. Applicants are advised to ensure the correctness of their Mailing Address, PINCODE, and Telephone Number, if any, with STD codes. Please note that OJEE-2012 will not be responsible if communications do not reach the applicant due to incomplete or illegible address / phone number.
- 11. Applicant must quote the six digit application number of the

- application form as a reference in all his/her future correspondence.
- 12. If the acknowledgement card does not reach the applicant by April 15, 2012, then she/he must check the website of OJEE-2012 www.odishajee.com for the status of receipt of his/her application form.
- Application must be completed in all respect. Incomplete application or application filled in a language other than English will summarily be rejected.
- 14. Options such as Category, Choice of place of examination centre and Reservation type, once filled up by the applicant in the application form cannot be changed under any circumstances.
- Applicant should give options only with respect to category (S, ZZ, OL, NRI) and Reservation type (SC/ST/PC/GC/WO/ES) that he/she can substantiate with documentary evidences during counselling.
- 16. The cost of application material is non-refundable.
- 17. Any dispute arising out of OJEE-2012 shall only be settled and decided under the jurisdiction of Hon'ble High Court of Odisha.
- 18. Applicant should not submit any document along with the application form to support any claim as mentioned above.
- 19. Original certificates, mark sheets and other documents will be verified at the time of document verification at nodal center with respect to eligibility, category and reservation that is claimed and shall be returned to the applicant immediately after the verification. However, original certificates made from appendices and photocopies of the certificates, marksheets, and other relevant documents will be kept during document verification at the nodal center.
- Claim for admission will be rejected if the candidate can not submit the original certificates, mark sheets, other necessary documents at the time of document verification or if one has filled the form wrongly.
- 21. Admission may be cancelled at any time, if certificate/ mark sheets/any other documents are found to be forged or manipulated. A candidate will not be considered for admission if he/she fails to substantiate the claim with respect to reservation, category, nativity, date of birth, qualification etc.
- 22. The non-OJEE 2012 candidates seeking admission under AIEEE/AIPMT/CAT/MAT/XAT/GATE/GPAT have to pay a non-refundable Fee of Rs. 500/- in addition to the counselling fee of Rs.450/-. This amount is payable through an Account Payee Bank Draft in favour of "OJEE-2012" drawn on any Scheduled Bank payable at Bhubaneswar.

PLEASE ENSURE THE FOLLOWING INSTRUCTIONS BEFORE SUBMITTING THE OMR APPLICATION FORM:-

- You have followed all the instructions in filling up the form and have gone through the important notes carefully;
- (b) You have written your address on the acknowledgement card correctly:
- You have enclosed the acknowledgement card with the application in the envelope, if you are submitting by post;
- (d) You have not used a staple / pin / tag in your application;
- (e) You have retained a photocopy of the application form.
 - Once duly filled in application form is submitted, no further change will be entertained under any circumstances.

DOCUMENT VERIFICATION

The original certificates and mark sheets along with two sets (set 1 and set 2) of photocopies of certificates and mark sheets as per eligibility of the candidate MUST be produced during document verification as detailed below.

SET 1 (To be deposited at Nodal Centre)

- 1. Original Rank Card.
- 2. On line registration slip.
- 3. Check list signed by the candidate at the bottom (Appendix I) in original.
- Photocopy of H.S.C. or any other relevant certificate showing the date of birth.
- Photocopy of 10 + 2 Pass certificate (For Engineering, Medical & Pharmacy) or Final Diploma Pass Certificate (for Lateral Entry) or +3 pass certificate (For MCA, MBA, PGDM, PGCM, PGDM [Executive] & +3 Sc. / B.Sc. Lateral Entry) or B. Tech/B. Arch/B. Pharm/M.Sc. pass certificate for PGAT.
- Photocopy of the 10 + 2 Mark Sheet (For Engineering, Medical & Pharmacy) or Diploma Mark Sheet (for Lateral Entry) or +3 Mark sheet and +2 Mark sheet (For MCA, MBA, PGDM, PGCM, PGDM [Executive] & +3 Sc. / B.Sc. Lateral Entry) or B. Tech/B. Arch/B. Pharm/M.Sc. final mark sheet for PGAT.
- Photocopy of School Leaving / College Leaving Certificate.
- 8. Original Certificate from the Head of the Institution last attended (Appendix VIII).
- Original 'Permanent Resident of Odisha' Certificate (Appendix – I) / Nativity Certificate from concerned Tahasildar.
- Original Certificate of Employment of Candidate's parent / Spouse (Appendix – II) Employer: Govt. of Odisha / Govt. of India / Govt. of India Undertakings and / Govt. of Odisha Undertakings located in Odisha at the time of application.
- 11. Original SC / ST certificate by birth (Appendix III).
- 12. Original Certificate of Ex-serviceman (Appendix IV)
- Original Certificate in support of Outlying Oriya (Odia) Speaking Tract (OL) (Appendix – V and VI) or certificate issued by OJEE -2012 with respect to Oriya (Odia) test conducted by OJEE -2012.
- 14. Photocopy of relevant certificates in support of Non-Resident Indians (NRI).
- Photocopy of Green Card if claiming seat under GC category.
- 16. Original Tuition Fee Waiver Certificate i.e., Income certificate (Appendix -IX)
- 17. Original GATE/GPAT card for MTech/MPharm.
- 18. Original NATA Score card for B.Arch
- Original Experience Certificate for candidates seeking admission to PGDM (Executive) programme
- 20. Other relevant documents, if any

SET 2 (To be returned to the candidates after verification at Nodal Centre)

 Original H.S.C. or any other relevant certificate showing the date of birth.

- Original 10 + 2 Pass certificate (For Engineering, Medical & Pharmacy) or Final Diploma Pass Certificate (For Lateral Entry) or +3 pass certificate (For MCA, MBA, PGDM, PGCM, PGDM [Executive] & +3 Sc. / B.Sc. Lateral Entry) or B. Tech/B. Arch/B. Pharm/M.Sc. for PGAT.
- Original 10 + 2 Mark Sheet (For Engineering, Medical & Pharmacy) or Diploma Mark Sheet (for Lateral Entry) or +3 Mark sheet and +2 Mark sheet (For MCA, MBA, PGDM, PGCM, PGDM [Executive] & +3 Sc. / B.Sc. Lateral Entry) or B. Tech/B. Arch/B. Pharm/M.Sc. final mark sheet for PGAT.
- 4. Original School Leaving / College Leaving Certificate.
- Original Green Card issued by Family Welfare Department of Government of Odisha (if the candidate takes admission under Green Card category, the original Green Card will be stamped and returned to the candidate after admission).
- 6. Original relevant certificates in support of Non-Resident Indians (NRI).
- 7. Other relevant documents, if any

NOTE: The candidate must keep Photocopies of all the original documents submitted at the time of document verification.

All Engineering, Pharmacy, and most of the colleges offering MCA and MBA degree programmes are either constituent or affiliated colleges of the Biju Patnaik University of Technology, Odisha, Rourkela except Veer Surendra Sai University of Technology, Burla which is a Unitary Technical State University.

All the students to be admitted (except those to be admitted to Medical and BDS colleges, Pharmacy, MBA, DTE&T quota and MCA Courses in other Universities of the State, PGDM, PGCM, PGDM Executive.) through JEE 2012 will be registered students of the Biju Patnaik University of Technology or VSSUT, Burla.

GENERAL INFORMATION

- 1.1 Application form duly filled in should be submitted in person at the Banks/Post Office from which it is purchased or by Registered post/Speed post/registered courier service to the JEE Cell in the address given in the back cover page of the information brochure, so as to reach on or before 22nd March, 2012
 - (i) Hand-delivery of forms at the JEE cell will not be accepted.
 - (ii) Any application received after the due date will not be considered.
 - (iii) The JEE-2012 committee will not take the responsibility for any postal delay or irregularity or loss in postal/courier transit of the application form.
 - (iv) While submitting the application form by hand at the Bank/ Post Office from where the candidate has purchased the form, he/she must collect duly signed and stamped acknowledgement card from the corresponding Bank / Post Office. The last date of submission of application form to the Bank / Post Office is 22nd March, 2012.
- 1.2 The Odisha Joint Entrance Examination-2012 will be held on Sundays, May 6 and May 13, 2012 as per TABLE-I.
- 1.3 If the application is sent by post or courier, the acknowledgement card should be duly filled in with a postage stamp of Rs.10/- affixed to it and the card should be enclosed inside the envelope meant for submission of application form.
- 1.4 A single application form is sufficient for any possible combination of courses to be opted. Do not send extra/ duplicate forms as those will be rejected. Not more than

one set of application form shall be submitted in one envelope. If the envelope contains more than one application form, the whole content will be rejected.

- 1.5 For any future correspondence, the six digit application number printed below the bar code of the application form should be mentioned.
- 1.6 If an applicant does not receive the Admit Card for the examination by April 25, 2012, he/she must check his /her roll No. and centre of examination from OJEE-2012 website. He/she may download two copies of the duplicate admit card from the OJEE website which must be endorsed by the centre Superintendent of the examination centre for allowing the candidate to appear the exam. A photograph identical to the one submitted during application must be pasted on each copy of the downloaded duplicate admit card. One copy of the duplicate admit card must be submitted at the examination hall and other should be retained by the candidate. However the submitted admit card may be examined at a later stage to validate the authenticity.

1.7 Availability of Courses:

OJEE-2012 will be conducted to draw the merit list of successful candidates for admission into:

- (i) Degree course in Engineering / Technology in different branches of engineering colleges/institutes in the State of Odisha affiliated to BPUT, VSSUT and in DTE & T quota seats outside state institutes. Alist of colleges / institutes in Odisha and discipline wise seats is given in Table - II for the year 2011 as an indicator.
- (ii) MBBS/BDS courses in the colleges as per list given in Table - III for the year 2011 as an indicator.
- (iii) B.Pharm. course in the colleges as per list given in Table IV for the year 2011 as an indicator.
- (iv) MCA course in the colleges / institutes as per list given in Table - V for the year 2011 as an indicator.
- (v) 3rd semester of Engineering / Technology and Pharmacy stream for Diploma holders under lateral entry scheme. 3rd semester of Engineering / Technology stream for B.Sc. / +3 Sc. with Mathematics as a subject in XII standard under lateral entry scheme. Maximum 20% (in case of private colleges) or 10% (in case of Government colleges) of intake capacity of previous year in appropriate discipline (these seats will be over and above the intake capacity) and carried forward vacant seats of first year of engineering/pharmacy as per list submitted by OJEE-2011 will be available for lateral entry at third semester for admission. The percentage of seats mentioned for lateral entry scheme is subject to outcome of the WP 19558/2011 pending in the Hon'ble High Court.
- (vi) MBA course in the colleges/ institutes as per list given in Table VI for the year 2011 as an indicator.
- (vii) Architecture courses in the colleges are as per Table-VII
- (viii) The list of colleges / Institute offering for PGDM/ PGCM and PGDM (Executive) as per list given in Table - VIII for the year 2011 as an indicator.
- (ix) The list of colleges / Institute offering for M.Tech and M.Arch as per list given in Table - IX for the year 2011 as an indicator.
- (x) The list of colleges / Institute offering for M.Pharm as per list given in Table X for the year 2011 as an indicator.

Note: List of Colleges/Institutes/University and availability of seats therein are for the year 2011 and this should be used for a reference or as an indicator.

1.8 Fee Structure:

1.8.1. Fees payable to colleges/institutes/universities:

Fees payable to colleges/institutes/universities at the time of admission will be decided by the competent authority. The same may also be published in our website.

1.8.2. (a) Fees payable to BPUT:

The University will charge the following fees from all the students admitted to their constituent/affiliated colleges.

1.	One time Curriculum Development Fee	Rs. 1500/-
2.	One time Fees payable towards Welfare Fund for Students	Rs. 500/-
3.	One time University Registration Fee	Rs. 500/-
4.	Subject wise Registration Fee in each Semester	Rs. 800/- (Per Semester)
5.	Semester Examination Fee	Rs.700/ -
6.	Insurance Fee Five Year Programme Four Year Programme Three Year Programme Two Year Programme	As per actual
7.	One Time Sports & Cultural Fee	Rs 250/ -

(b) Fees for other Universities: It will be decided by competent authorities of respective Universities.

1.9. Age limit:

Wherever there is no age limit for taking admission (vide clause 4), the Government of Odisha will not be responsible for any regulation of service where such requirement for age exists. The candidate should take admission at his/her own risk as regards to age.

1.10 Medical Fitness:

OJEE will not be responsible if a candidate faces difficulty in employment on medical ground. Candidates claiming reservation under physically challenged category will have to go through a Medical Board (Clause 2.1.4). The decision of the Medical Board will be final and binding.

1.11. Merit List:

Separate merit list for all qualifying candidates shall be drawn on the basis of OJEE-2012 results in the following manner.

- One list for candidates seeking admission to Engineering / Technology (B.Tech) degree courses on the basis of marks obtained in Physics, Chemistry and Mathematics,
- (ii) One list for candidates seeking admission to Medical/Dental (MBBS/BDS) degree courses on the basis of marks obtained in Physics, Chemistry and Biology,
- (iii) One list for candidates seeking admission to Pharmacy (B.Pharm) degree course on the basis of marks obtained either in Physics, Chemistry and 2 X Mathematics or in Physics, Chemistry and Biology whichever is higher,
- (iv) One list for candidates of diploma streams seeking admission under Lateral Entry scheme to engineering and technology (LE in B.Tech) on the basis of marks obtained in diploma test in engineering/technology.
- (v) One list for candidates of diploma streams seeking admission under Lateral Entry scheme to Pharmacy (LE in B. Pharm) on the basis of marks obtained in diploma test in pharmacy.

- (vi) One list for candidates of B.Sc. or +3 Sc. (should have passed Mathematics as a subject in +2 level) streams seeking admission under lateral entry scheme to engineering / technology (LE in B.Tech) on the basis of marks obtained in +3 Sc. / B.Sc. Paper-I and +3 Sc. / B.Sc. Paper-II.
- (vii) One list for candidates seeking admission to MCA courses will be on basis of marks obtained in MCA test.
- (viii) One list for candidate seeking admission to MBA/PGDM/PGCM/PGDM (Executive) will be on the basis of marks obtained in entrance test for MBA/PGDM/PGCM/PGDM (Executive).
- (ix) One list for candidates seeking admission to B. Arch course will be on the basis of marks obtained in Physics, Chemistry, and Mathematics.
- (x) One list for candidates seeking admission to M. Tech course will be on basis of marks obtained in PGAT test.
- (xi) One list for candidates seeking admission to M. Pharm course will be on basis of marks obtained in PGAT test.
- (xii) One list for candidates seeking admission to M. Arch course will be on basis of marks obtained in PGAT test.

In addition, separate merit lists will also be drawn for candidates qualifying under each of the reservation categories. Each successful candidate shall be given a rank card.

2. Categories:

2.1. Odisha State Category (S- Category)

For admission to colleges under Odisha State Category (S-Category) one has to satisfy at least one of the following three criteria:-

- (a) The candidate must have passed/appeared 10+2 examination from any of the recognised institution in the State of Odisha for Bachelors Degree. The candidate must have passed/appeared +3 / Bachelors / B.Tech / B.Pharm / B.Arch from any recognised Institution / Universities in the state of odisha for Masters Degree.
- (b) Parents of the candidate other than (a) must be permanent native of Odisha. To claim benefit under this category, a candidate shall have to furnish at the time of document verification a "permanent residence certificate", in prescribed form (Appendix-I) from a Revenue Officer not below the rank of Tahasildar of the area to which his/her parents belong as permanent native.
- (c) Sons / daughters / spouse of the permanent employees of Government of Odisha / Govt. of India/Govt. of Odisha Undertakings/Govt. of India undertakings, serving in the State of Odisha at the time of application. To claim the benefits under this category, candidate has to submit a certificate from the employer of his/her parents/spouse in the prescribed form (Appendix-II) at the time of document verification.

Candidates belonging to 'S category' will be eligible for admission on the basis of their rank in the merit list to Government & Private colleges, except Government & Private Medical, Government Dental colleges and lateral entry (LE).

For admission into MBBS/BDS course in Govt. colleges, MBBS course in Private Colleges and lateral entry (LE) for B.Tech/B.Pharm/B.Arch course in Government and Private engineering colleges, the parents of the candidate must be permanent native of Odisha and must produce permanent residence certificate (Appendix-I) at the time of document verification during counselling.

The candidates claiming any reservation must produce the permanent residence certificate in Appendix – I during document verification.

Reservation of Seats under State Categories:

The reservation of seats in different colleges under various categories will be as per the policy of the Government of Odisha. The percentage of seats to be reserved for different categories are subject to change and the decision of the State Government in this regard shall be final and binding on the candidate. All Reservations are applicable to permanent natives of Odisha State only and they must produce permanent residence certificate in Appendix – I from Odisha State during document verification.

2.1.1 8% seats in all colleges are reserved for candidates belonging to Schedule Caste by birth (not by marriage or adoption). 12% seats in all colleges are reserved for candidates belonging to Schedule Tribe by birth (not by marriage or adoption).

Separate merit lists will be drawn up for each reserved category. If eligible candidates belonging to a reserved category are not available, seats can be filled up by the candidates belonging to the general category.

2.1.2. Candidates applying for SC/ST reserved category shall furnish SC/ST certificate from the Tahasildar of the place of birth in Odisha at the time of document verification in the format given in this brochure (Appendix - III).

NOTE: Scheduled Caste/Scheduled Tribe persons who have migrated from their state of origin to another state for the purpose of seeking education, employment etc., will be deemed to be scheduled caste/ tribe of the state of their origin and will be entitled to derive benefits from the state of origin and not from the state to which they have migrated. (Vide Govt. India Letter No. BC/160 14.1.82 SC & BCD/dated 22nd Feb, 1985). Thus, SC/ST candidates from Odisha who are staying outside the State have to produce SC/ST certificate from the competent authority of Odisha State during document verification.

- 2.1.3. 5% of seats are reserved for children of Green Card holders. Candidates applying under Green Card category shall furnish the Green card of their parents issued by Family Welfare Department, Government of Odisha/any other appropriate authority, in original at the time of document verification. The name, date of birth of the candidate alongwith the parents' names should match with those mentioned in 10th class pass certificate. If in future it is found that the green card has been obtained by providing wrong information or suppressing facts, the card holder will be deprived of the facilities already obtained and will be liable for legal punitive action.
- 2.1.4. 3% of seats are reserved for Physically Challenged candidates for admission to B.Tech / B. Arch / MBA / MCA / PGDM / PGCM / PGDM(Exe) / B. Pharm courses. The candidates with 40% disabilities in consonance with section-39 of the Persons with Disabilities (Equal opportunities, Protection of Rights and Full participation) Act, 1995 are eligible to be considered under Physically Challenged Category for admission to B.Tech / B. Arch / MBA / MCA / PGDM / PGCM / PGDM(Exe) / B. Pharm courses.

3% of total MBBS and BDS seats are reserved for persons with disabilities and they have to meet the medical standard of Locomotory disability of lower limbs between 50 to 70% (% of disability may vary subject to the decision of the Hon'ble Apex court).

The medical standard of PC category candidates will be decided by a medical board specifically constituted with Senior Professors of the premier medical college and hospital: SCB Medical College, Cuttack, and Chairman OJEE-2012 or his representative under the Chairmanship of Principal, SCB

Medical College or his nominee, that they are eligible to be categorized as Physically Challenged candidates and capable of undergoing each part of the requirements for B.Tech / B. Arch/MBBS/BDS/MBA/MCA/PGDM/PGCM/PGDM(Exe) / B. Pharm. **The decision of this Board will be final and binding**. They SHOULD NOT therefore, submit along with the application form any medical certificate to the effect that they are physically Challenged.

Further, for MBBS/BDS stream, the candidates claiming locomotary disabilities of lower limbs are only eligible for consideration. Visually handicapped and hearing disabled candidates are not eligible as stipulated by Medical Council of India

- 2.1.5. 2% of seats in Engineering Colleges for B.Tech/B.Arch and 3% seats in Government Medical Colleges in MBBS and BDS courses are reserved for children/widows of ex-servicemen who are native of Odisha. Candidates applying under Ex-Serviceman reserved category shall furnish a certificate in the prescribed format provided in this brochure as Appendix-IV at the time of document verification. The candidates have to report to Rajya Saink Board on the scheduled date for prioritisation. The priorities will be notified in the OJEE-2012 website. The decision of this Board will be final and binding.
- 2.1.6. 30% of the seats in all the categories [except Outside State (ZZ), Non-resident Indians (NRI), OL and TFW category] are reserved for women candidates for B. Tech, B. Arch MBA, MCA, PGDM, PGCM and PGDM (Executive) courses.
- 2.1.7. Seats up to maximum 5 percent of sanctioned intake per course are available for admissions under Tuition Fee Waiver Scheme [TFW]. These seats are supernumerary in nature.

Eligibility criteria for Tuition Fee Waiver Scheme [TFW]:

- i. Sons and daughters of parents whose annual income is less than Rs. 4.50 lakhs (Rupees four lakh and fifty thousand only) from all sources are eligible for seats under this scheme. The candidates who will be interested in taking admission under this scheme have to produce income certificate issued by local Tahasildar (Appendix - IX) during document verification.
- ii. The waiver is limited to the tuition fee as approved by the Government of Odisha Fee Structure Committee for selffinancing Institutions and by the Government for the Government Institutions. All other fees except tuition fee will have to be paid by the beneficiary.
- iii. The candidate should be a permanent native of Odisha.
- iv. TFW scheme is applicable to all AICTE approved technical institution offering Bachelor Programs of four year duration.
- Candidate has to produce the following documents for claiming TFW scheme at the nodal centre during document verification.
 - a) Permanent Resident of Odisha certificate. (Appendix –I)
 - b) Income certificate of parents from local Tahasildar (Appendix-IX)
- **2.2. OL Category:** [Oriyas (Odias) belonging to outlying Oriya (Odia) speaking tracts]

(Notification NO:13411-SC-6-64/69-Gen Political & Service Department, Govt of Odisha Dt. 8/8/1969)

2.4.1 Due to settlement of boundaries of states some Odia speaking areas have been merged in other neighbouring states as a result of which the Odias living in these areas who are now permanent residents of other states have been deprived of studying Oriya (Odia) language or Oriya (Odia) culture. 3% of seats in Government Engineering colleges are reserved for Odia speaking people residing outside the State of Odisha. OL reservation is not applicable to private engineering colleges. OL reservation is also not applicable to MBA/ MCA/ MBBS/BDS/Pharmacy/PGDM/PGCM and PGDM (Executive)/LE/M.Tech/M.Pharm/M.Arch streams.

- 2.4.2 A candidate eligible to avail the reservation under OL Category must have:
 - (i) A nativity certificate from outside the state of Odisha.
 [Appendix V, Certificate of Authenticity of Oriyas (Odias) belonging to Outlying Oriya (Odia) Speaking Tract]
 - (ii) Certificate of having passed Odia as a language upto M.E. standard. (Appendix VI)

OR

If not, then the candidate has to pass an Odia examination with minimum 40% marks to be conducted by OJEE 2012 committee at the time of counselling process.

(iii) The candidate must have passed 10+2 Science examination from outside Odisha.

2.3 Non-Resident Indians: (NRI)

NRI means Sons and Daughters of an Indian citizen who ordinarily reside outside India and hold an Indian passport.

NRI seats (5% of seats within sanctioned intake) are available only to the Institutions/Colleges those who have got approval for NRI seats from AICTE.

In the event of non-availability of students in NRI category, the seats will be given to general candidates as per general merit. However, general fee shall be applicable to these candidates thus admitted against vacant NRI seats.

The candidate eligible to avail NRI category must produce

- (a) Copies of passport
- (b) Work permit
- (c) Equivalence certificate of the qualifying examination.

at the time of document verification.

Students admitted under this scheme shall not be allowed to change Institution / course under any circumstances.

2.4 Outside State Category: (ZZ)

Outside state candidates are not eligible for admission in Government Colleges to Engineering/ MBA /MCA/ MBBS/ BDS/ PGDM/ PGCM and PGDM (Executive) courses admission under lateral entry programme and for private MBBS programmes.

Outside state candidates are eligible for admission in Private Engineering (B.Tech, B.Arch 1st year only) / Private Pharmacy (B.Pharm 1st year only) / Private MBA/ Private MCA/ Private BDS / Private PGDM/ Private PGCM and Private PGDM (Executive) colleges as per their eligibility criteria.

2.5 Number of Seats and Reservation

Exact number of seats and branches will be notified through OJEE-2012 web site before counselling.

- Only permanent natives of Odisha state will be eligible to avail all reservations seats under 2.1.
- ii. Seats available under General Category in any course are those "available after deducting the number of seats pertaining to all the Reserved Categories from the total number of seats available for that particular course after taking into account the

All India Quota (AIEEE, AIPMT, CAT, MAT, XAT etc.) and NRI quota in that course".

For Bachelors Degree Courses in Engineering / Architecture the reservation is as given below:

 For Government Engineering Stream the candidates belonging to categories 2.1.1, 2.1.3, 2.1.4, 2.1.5, 2.1.6 and 2.1.7 can also compete under general category provided they satisfy all conditions of eligibility for the same.

For the Bachelors Degree Courses in Engineering / Architecture in Govt. Institutions, the reservation is as given below.

Scheduled Caste	8%
Scheduled Tribe	12%
Green Card	5%
Physically Challenged	3%
Ex-Servicemen	2%
Oriya(Odia) belonging to outlying	3%
Oriya(Odia) speaking tracts	
Women	30% in each category except
	OL and TFW
Tuition Fee Waiver	Upto 5% (Supernumerary)
	(Except OL, &
	Architecture Branch)

ii. For Private Engineering Stream the candidates belonging to categories 2.1.1, 2.1.3, 2.1.4, 2.1.5, 2.1.6 and 2.1.7 can also compete under general category provided they satisfy all conditions of eligibility for the same.

For the Bachelors Degree Courses in Engineering/Architecture in Private Institutions the reservation is as given below.

- 5% seats are reserved for NRI and another 15% is reserved for AIEEE.
- If candidates are less than 5% in NRI, the balance seat will be transferred to the general seat and allotment will be done as per general merit.
- If candidates are less than 15% in AIEEE, the balance seat will be transferred to the general seat and allotment will be done as per general merit.

Therefore for allotment of the seats to the candidates, the reservations applicable are as given below for the balance seats after deducting AIEEE and NRI seats from the total intake.

Scheduled Caste	8%
Scheduled Tribe	12%
Green Card	5%
Physically Challenged	3%
Ex-Servicemen	2%
Tuition Fee Waiver	5% (Supernumerary) [Except ZZ, NRI & Architecture Branch]
Women	30% in each category (SC, ST, GC, PC, Ex-Service)

There is no reservation category for Engineering Lateral Entry both for Diploma Holders as well as for +3 Sc. / B.Sc. degree holders.

For MBA/PGDM/PGCM/PGDM(Ex) the reservation is as given below:

- 5% seats are reserved for NRI and another 15% is reserved for CAT, MAT and XAT (5% each) in Private Professional Colleges.
- If candidates are less than 5% in NRI in Private Professional Colleges, the balance seat will be transferred to the general seat and allotment will be done as per general merit.
- All India quota seats to the tune of 15% for MBA programs shall be filled up from the merit list of CAT, MAT and XAT. Vacant seats, if any, in these categories shall be interchanged in the

first instance and then converted to general category and allotment will be done as per general merit.

For MBA, PGDM, PGCM and PGDM (Executive) streams, the candidates belonging to categories 2.1.1, 2.1.3, 2.1.4 and 2.1.6 can also compete under general category provided they satisfy all conditions of eligibility for the same.

Therefore for allotment of the seats to the candidates, the reservations applicable are as given below for the balance seats after deducting CAT, MAT, XAT and NRI seats from the total intake.

Scheduled Caste	8%
Scheduled Tribe	12%
Green Card	5%
Physically Challenged	3%
Women	30% in each category (SC,ST,GC,PC)

For MCA, the reservation is as given below:

- 5% seats are reserved for NRI in Private Professional Colleges.
- If candidates are less than 5% in NRI, the balance seat will be transferred to the general seat and allotment will be done as per general merit.

For MCA streams, the candidates belonging to categories 2.1.1, 2.1.3, 2.1.4 and 2.1.6 can also compete under general category provided they satisfy all conditions of eligibility for the same.

Therefore for allotment of the seats to the candidates, the reservations applicable are as given below for the balance seats after deducting NRI seats.

Scheduled Caste	8%
Scheduled Tribe	12%
Green Card	5%
Physically Challenged	3%
Women	30% in each category (SC, ST, GC, PC)

For Pharmacy the reservation is as given below:

For Pharmacy streams, the candidates belonging to categories 2.1.1, 2.1.3, 2.1.4, and 2.1.7 can also compete under general category provided they satisfy all conditions of eligibility for the same.

For the Bachelors Degree Courses in in Private Pharmacy Institutions the reservation is as given below.

- 5% seats are reserved for NRI in Private Professional Colleges.
- If candidates are less than 5% in NRI in Private Professional Colleges, the balance seat will be transferred to the general seat and allotment will be done as per general merit.

Therefore for allotment of the seats to the candidates, the reservations applicable are as given below for the balance seats after deducting NRI seats.

Scheduled Caste	8%
Scheduled Tribe	12%
Green Card	5%
Physically Challenged	3%
Tuition Fee Waiver	5% (Supernumerary) [Except NRI & ZZ]

For Lateral Entry in Pharmacy there is no reservation

Post Graduate Admission Test for Engineering/Technology, Pharmacy and Architecture(PGAT)

For M.Tech, M.Arch and M.Pharm the reservation is as given below:

- 5% seats are reserved for NRI in Private Professional Colleges.
- If candidates are less than 5% in NRI in Private Professional

Colleges, the balance seat will be transferred to the general seat and allotment will be done as per general merit.

- After deducting the NRI seats 50% of the remaining seats will be allocated to All India Post Graduate Aptitude Tests (GATE & GPAT) and remaining 50% to PGAT candidates.
- If candidates are less than 50% in GATE/GPAT score, the balance seat wills be transferred to the PGAT and allotment will be done as per general merit.
- All the candidates claiming seat under GATE/GPAT should produce Valid GATE/GPAT score card in original during counselling process.

For M.Tech, M.Pharm and M.Arch streams, the candidates belonging to categories 2.1.1 can also compete under general category provided they satisfy all conditions of eligibility for the same.

Scheduled Caste	8%
Scheduled Tribe	12%

For MBBS/BDS the reservation is as given below:

For Medical/BDS stream, candidates belonging to 2.1.1, 2.1.3, 2.1.4, and 2.1.5 categories can compete with General category candidates if they satisfy the eligibility condition.

- 15% seats are reserved for AIPMT candidates in Private Professional Colleges.
- Another 5% seats are reserved for NRI in Private Professional Colleges.
- If candidates are less than 5% in NRI, the balance seat will be transferred to the general seat and allotment will be done as per general merit.
- If candidates are less than 15% in AIPMT, the balance seat wills be transferred to the general seat and allotment will be done as per general merit.

Therefore for allotment of the seats to the candidates, the reservations applicable are as given below form the balance seats after deducting AIPMT and NRI seats from the total intake as applicable.

Scheduled Caste	8%
Scheduled Tribe	12%
Green Card	5%
Physically Challenged	3%
Ex-Servicemen	3% (Only applicable for Government colleges)

Outside state candidates (ZZ Category) are eligible only for private BDS Colleges.

iii. If a candidate does not report during scheduled date of reporting for document verification, he/she will be treated as absentee and will not be permitted to participate in the counselling subsequently under any circumstances.

iv. TRANSFER OF VACANT SEATS:

Transfer of vacant seats from one category to another is only applied when there are vacant seats in that category. For example, if some SC seats are vacant after all allotment, then those seats will be transferred to General seats. Similarly ST reserved category are not filled up due to non-availability of candidates belonging to ST category, such vacant seats may be filled up by candidates belonging to General Category.

Seats reserved under all other category like PC, GC, Ex-Servicemen etc. will be filled up by general category candidates in case the same are not filled up from the reserved category except TFW category.

In case of any change in the percentage of reservation of seats/reservation criteria mentioned in the clause above on the basis of guidelines from MCI / PCI / DCI / MHRD / AICTE /

Government of Odisha, it will be intimated through the Counselling-cum-Admission Instructions to all the merit listed candidates. It will also be published in OJEE-2012 website.

2.6. Enquiry Regarding Admission:

Information regarding Examination / Admission may be obtained from the Chairman, OJEE-2012.

Note: All enquires and correspondences with OJEE authorities must bear the candidate's Application number. After receiving the admit card the candidate should also quote the Roll No. allotted to him/her in the correspondence, if any.

Telephonic enquiry will be attended to during 10 AM to 8 PM only in all working days.

2.7. Choice of College and Discipline:

Selection for admission will be strictly on the basis of rank secured in the OJEE-2012 merit list subject to the availability of seats in colleges and disciplines at the time of counselling process for admission.

Reporting at the nodal center for document verification according to the date schedule is very important, other wise the candidate may lose his/her chance to get a seat as per his/her choice or rank.

2.8. Places of Examination:

Following is a tentative list of places where JEE-2012 Examination will be conducted.

Angul, Balasore, Bargarh, Baripada, Bhawanipatna, Berhampur, Bhadrak, Bhubaneswar, Bolangir, Boudh, Burla, Cuttack, Chatrapur, Dhenkanal, Deogarh, Jagatsinghpur, Jajpur, Jeypore, Jharsuguda, Kendrapara, Keonjhar, Koraput, Nayagarh, Nuapada, Paralakhemundi, Phulabani, Puri, Rayagada, Rourkela, Sambalpur, Sarang, Subarnapur, Sundergarh, Malkangiri, Nabarangpur, New Delhi, Viazag, Kolkata, Kharagpur, Ranchi, Jamshedpur, Guwahati, Mumbai, Raipur, Patna, Hyderabad, Bangalore, Chennai, Ahmadabad and Surat.

2.9. Option for Examination Centers:

Candidates should give three places of examination of their choice (as per section 6.10) in order of preference. Allocation of centre will be made subject to availability and facilities existing. If sufficient candidates in a given centre are not available, then that center shall be dropped from the list and if a candidate has earlier asked such a centre then his/her centre will be rescheduled. The decision of the OJEE-2012 committee regarding the allocation of the centre shall be final and binding. Change of allotted centre is not permissible under any circumstances. Candidates choosing for a centre outside the state are required to opt for at least one centre inside the state of Odisha.

For Lateral Entry / M.Tech / M.Pharm / M.Arch / MCA / MBA / PGDM / PGCM and PGDM (Executive) the centres will be limited to the following places only:

Angul, Balasore, Berhampur, Bhubaneswar, Cuttack, Rayagada, Rourkela and Sambalpur.

Candidates desirous to appear for the above courses are to give their preference of the centres accordingly.

3. Admission Rules and Procedure:

OJEE refers to the Odisha Joint Entrance Examination conducted by the State of Odisha for admission to Engineering / Technology / Medicine / Dentistry / Pharmacy / B.Arch. and Master in Computer Application (MCA) / Master in Business Administration (MBA)/ PGDM/ PGDM (Executive) / PGCM / M. Arch / M. Tech / M. Pharm and Third Semester of Degree Courses in Engineering / Technology / Pharmacy / Architecture under Lateral Entry (both Diploma and +3 Sc. / B.Sc.) in the academic year 2012 - 2013.

- **3.1.** The reservation policy of the Government of Odisha and the Government approved procedure given in the brochure for allocation of seats during counselling will be strictly followed.
- **3.2.** Admission is strictly based on OJEE-2012 merit rank and choice of the candidate with respect to Institution and course given during the counselling process.
- 3.3. Candidates will be called for the counselling process as per a schedule printed in the Rank Card. The counselling process schedule will also be available on OJEE-2012 website.
- 3.4. During document verification all certificates in original will be verified. For records of the college, a set of attested copies of the certificates/ marksheet etc. will be collected during document verification and will be sent to the colleges.
- **3.5.** A candidate selected through the counselling process for a course in a college/University has to take admission in the respective college/University.
- 3.6. As per the resolution No. ME-II-ILL-4 / 2006-716 / H Dated 09.01.2008 released by Government of Odisha in Health and Family welfare Department, candidates taking admission into M.B.B.S. programme in Government medical colleges are to render two years of service in K.B.K. / Rural areas under the State Government; accordingly the candidates are to sign the bond introduced by the State Government (the Bond format is given in Appendix-VII) during admission. In case a candidate does not join the service of the State of Odisha within 30 days of receipt of an appointment order, he or she will be required to pay Rs. 5 lakhs within a period of four years and a half. In case, he / she does not pay the amount within the stipulated period, the amount shall be recovered from him/her as arrears of land revenue by invoking the provision of Odisha Public Recovery (OPDR) Act, 1962. If a candidate having completed MBBS course works for a period which is less than 2 years and gets selected for the PG course in a Govt. Medical College inside the state he / she shall be required to serve for a period of 2 years. However, if a candidate appointed in contractual basis chooses to join a PG course in an institution outside the State or in a private institution inside the state, he / she will be required to pay an amount @ Rs. 2.50 lakhs per annum for the period which falls short of 2 years. None of these provisions will apply to the candidates who take admission in MBBS in the state against All India Quota. Appointment under the State Government for this purpose shall mean and include regular appointment through selection process by Government / O.P.S.C, adhoc appointment and contractual appointment. For any relaxation in this regard, the decision of the State Government shall be final. This resolution has come into force from first batch of MBBS students joining the degree course w.e.f. 2008-09.
- 3.7. Each candidate has to pay a non-refundable counselling fee of Rs. 450/-. This amount is payable through an Account Payee Bank Draft in favour of "OJEE - 2012" drawn on any Nationalised Bank payable at Bhubaneswar.
- 3.8. A candidate has to pay Rs.16,000/-(Govt. Institution) or Rs.30,000/- (Private Institution) through a separate A/c Payee Bank Draft drawn in favour of "OJEE-2012" on any Nationalised Bank payable at Bhubaneswar. The balance after deduction of the University fee of Rs.4,500/- (as per section 1.8.2) shall be paid to the admitting college for adjustment against the tuition and other fees payable to the college.
- **3.9.** A candidate must demand the headwise break up of fees that he/she pays at the college level.
- **3.10.** The procedure of refund of fees will be as per Government of Odisha/UGC/AICTE/MCI/DCI/PCI guidelines/instructions issued from time to time.
- 3.11. Candidates who do not receive the OJEE-2012 rank card or

have lost the rank card can get a duplicate rank card from the JEE Cell Gandamunda, Bhubaneswar on payment of Rs.200/-in the form of Bank draft in favour of "OJEE-2012" drawn on any nationalised bank payable at Bhubaneswar. For issue of duplicate admit card the candidate has to come to JEE cell Bhubaneswar with his/ her identity proof. He / She can check the schedule of counselling from our OJEE-2012 website. i.e. www.odishajee.com

- **3.12.** The counselling process will start tentatively during last week of June 2012 and will be intimated in detail in the counselling brochure and OJEE-2012 website.
- **3.13.** No candidate can be admitted to a college on the basis of marks scored in qualifying examination.
- 3.14. A student admitted to a college against a course cannot be transferred to another course in the same college in the First year under any circumstances.
- 3.15. A student admitted to a college cannot be transferred to another college in the First year in same course or in another course.
- 4. Minimum Eligibility Criteria:
- 4.1 For admission to 1st Year Degree courses in Engineering / Technology, Architecture and Pharmacy.

4.1.1. Engineering & Technology:

Passed or appearing in 2012, 10+2 examination of CHSE, Odisha or equivalent with Physics and Mathematics as compulsory subjects along with one of the subjects from Chemistry / Biotechnology / Biology/ Electronics / Computer Science / Information Technology/ Geology / Statics. The candidate should have passed individual subject and must have obtained at least 45% marks (40% in case of candidate belonging to SC/ST category) in the above subjects taken together.

There is no age limit to appear at OJEE-2012 for admission into Engineering & Technology courses.

4.1.2. Pharmacy:

Passed or appearing in 2012, 10+2 examination of CHSE, Odisha or equivalent with Physics and Chemistry as compulsory subjects along with one of the subjects from Mathematics / Chemistry / Biotechnology / Biology. The candidate should have passed individual subject and must have obtained at least 45% marks (40% in case of candidate belonging to SC/ST category) in the above subjects taken together.

There is no age limit to appear at OJEE-2012 for admission into Pharmacy courses.

4.1.3. Architecture:

Passed or appearing in 2012, 10+2 examination of CHSE, Odisha or equivalent with Physics and Mathematics as compulsory subjects along with one of the subjects from Chemistry / Engineering Drawing / Computer Science / Biology. The candidate should have passed individual subject and must have obtained at least 45% (40% in case of candidate belonging to SC/ST category) marks in the above subjects taken together.

All the aforesaid admission into 5 year B.Arch. degree course are to be subject to passing NATA conducted by the council of architecture and the minimum passing score for NATA is 40% for all categories of candidates. NATA shall be a prerequisite for admission into B.Arch course, but the ranking shall be on the basis of OJEE-2012 ranking and admission to the course is based on the OJEE-2012 rank.

- 4.2. For admission to 1st Year Medical Stream (MBBS/BDS):
- 4.2.1 Passed or appearing in 2012, 10+2 examination of CHSE,

Odisha or equivalent, with Physics, Chemistry & Biology (Botany and Zoology) with at least 50% marks in aggregate (Physics, Chemistry & Biology taken together) for general category candidates and 40% marks in aggregate for SC/ST candidates. For candidates seeking admission through OJEE-2012 to Govt. and Private Colleges the candidate must be a permanent native of Odisha. They are to submit the Permanent Residence Certificate (Appendix - I) at the time of document verification during counselling process.

AGE: The lower age shall be 17 years as on December 31, 2012. The upper age shall be 25 years as on December 31, 2012 (Strictly as per the date of birth mentioned in the Birth certificate or High school certificate). The upper age limit may be relaxed by three years for SC/ST candidates.

4.2.2. In case of the admission through competitive entrance examination, a candidate must have passed in the subjects Physics, Chemistry, Biology in the qualifying examination (10+2 or equivalent) and must have obtained a minimum of 50% mark taken together. The candidate also has to secure minimum 50% marks in the competitive examination in Physics, Chemistry and Biology taken together.

In respect of candidates belonging to SC / ST, the marks obtained in Physics, Chemistry and Biology taken together in the qualifying examination and in the competitive entrance examination be 40% instead of 50% as stated above.

4.3. For admission to Lateral Entry

4.3.1 For admission into 2nd year Degree courses in Engineering/Technology courses under Lateral Entry for Diploma holders:

Passed or appearing in 2012, in diploma examination in Engineering from State Council of Technical Education and Training (SCTE&VT), Odisha or equivalent with at least 45% marks (40% in case of candidates belonging to SC/ST category) in appropriate branch of Engineering / Technology.

The candidate must be a native of Odisha. Results of final diploma examination must be available on the date of document verification. Candidates, whose results are not available on the day of document verification, will not be allowed to participate in the counselling process.

There is no reservation of seats in various categories in lateral entry to degree Engineering/Technology (B.Tech) courses.

The candidate must submit the Permanent Residence Certificate (Appendix - I) at the time of document verification.

Choice of Discipline:

Candidates having Diploma in Engineering/Architecture in the discipline indicated in Column-I are eligible to be admitted to their corresponding discipline only mentioned in Column-II of **Table-XIII** based on merit list. The diploma offered by NTTF Gopalpur is recognized equivalent to diploma course offered by SCTE & VT, Odisha, Bhubaneswar.

Further the students who have passed diploma in Engineering and Technology from an AICTE approved Institution and having a rank in lateral entry shall also be eligible for admission to the first year engineering degree course subject to vacancies in the first year class in case the vacancies in lateral entry are exhausted. However the admission shall be based strictly on the basis of OJEE-2012 rank only.

There is no age limit to admission to this course.

4.3.2 For admission into 2nd year Degree courses in Pharmacy courses under Lateral Entry for Diploma holders:

Passed or appearing in 2012 in diploma examination in two years diploma course in Pharmacy with minimum 45% (40%)

in case of candidate belong to SC / ST category) of marks in aggregate from Odisha State Board of Pharmacy (OSBP) or SCTE&VT or equivalent for direct admission to the third semester degree courses.

The candidate must be a native of Odisha. Results of final diploma examination must be available on the date of document verification. Candidates, whose results are not available on the day of document verification, will not be allowed to participate in the counselling process.

There is no reservation of seats in various categories in lateral entry to degree Pharmacy courses.

The candidate must submit the Permanent Residence Certificate (Appendix - I) at the time of document verification.

Choice of Discipline:

Candidates having Diploma in Pharmacy in the disciple indicated in Column-I are eligible to be admitted to their corresponding discipline only mentioned in Column-II of Table-XII based on merit list.

Further the students having rank in lateral entry shall also be eligible for admission to the first year pharmacy degree course subject to vacancies in the first year class in case the vacancies in lateral entry are exhausted. However the admission shall be based strictly on the basis of OJEE-2012 rank only.

There is no age limit to admission to this course.

4.3.3 For admission to 2nd year Degree courses in Engineering/Technology under Lateral Entry for B. Sc./+3 Sc. students:

Passed or appearing in 2012, for the Bachelor's Degree examination of three years duration in Science from any University of Odisha or equivalent from a recognized University as defined by UGC, with at least 45% marks (40% in case of candidates belonging to ST/SC category) and must have passed XII standard with Mathematics as a subject.

Further even though the student in this stream are admitted to second year course, they have to clear the subjects of Engineering Graphics / Engineering Drawing and Engineering Mechanics of the first year engineering program along with the second year subjects.

They are to submit the Permanent Residence Certificate (Appendix - I) at the time of document verification.

Choice of Discipline: (for Lateral Entry Stream)

Candidates having B. Sc. or +3 Sc. with mathematics in class XII as a subject are eligible to be admitted to any discipline of engineering as per availability of seats.

The students belonging to B. Sc / +3 Sc. stream shall be considered only after filling the supernumerary seats in the lateral entry category with students belonging to Diploma stream.

Students who have passed B.Sc / +3 Sc degree from a recognized University as defined by UGC shall also be eligible for admission to the first year engineering degree courses subject to vacancies in the first year class in case the vacancies at the lateral entry are exhausted. The admission shall be based strictly on the eligibility criteria mentioned above and after filling the vacant seats of the first year engineering degree courses by the lateral entry engineering applicants belonging to Diploma stream.

There is no age limit to admission to this course.

4.4 For admission to Master in Computer Application

Passed or appearing in 2012, for the Bachelor's Degree examination of minimum three years duration in any discipline from any University of Odisha or equivalent recognized

University as defined by UGC and must have passed in Mathematics at 10+2 level. Business Mathematics at +2 level are not permitted.

The candidate should have obtained at least 50% (45% in case of candidate belonging to ST/SC category) at the qualifying Examination

If the candidate has passed BCA with mathematics as a subject, he/she may appear the entrance test without Mathematics at 10+2 level.

There is no age limit to admission to MCA course.

4.5 For admission to MBA/PGDM/PGCM/PGDM(Executive)

4.5.1 MBA/PGDM

Passed or appearing in 2012, for the Bachelor's Degree examination of minimum three years duration in any discipline from any University of Odisha or equivalent recognized University as defined by UGC.

The candidate should have obtained at least 50% marks (45% in case of candidate belonging to SC/ST category) at the qualifying examination.

There is no age limit to for admission to MBA/PGDM course.

4.5.2 PGCM

Passed or appearing in 2012, for the Bachelor's Degree examination of minimum three years duration in any discipline from any University of Odisha or equivalent recognized University as defined by UGC.

There is no age limit to for admission to PGCM course.

4.5.3 PGDM (Executive)

Passed or appearing in 2012, for the Bachelor's Degree examination of minimum three years duration in any discipline from any University of Odisha or equivalent recognized University as defined by UGC and a minimum of 5 years relevant managerial/supervisory experience.

The candidate should have obtained at least 50% marks (45% in case of candidate belonging to SC/ST category) at the qualifying examination.

There is no age limit to for admission to PGDM (Executive) course.

4.6 For admission to M.Tech / M. Pharm / M. Arch (The candidate has to apply only on-line at OJEE-2012 website)

4.6.1 M.Tech

Passed or appearing in 2012 Bachelor's Degree of examination in the relevant field in Engineering in any discipline from any University of Odisha or equivalent recognized University as defined by UGC/AICTE.

The candidate should have obtained at least 50% marks (45% in case of candidate belonging to SC/ST category) at the qualifying examination.

There is no age limit for admission to M. Tech course.

4.6.2 M.Pharm

Passed or appearing in 2012 Bachelor's Degree of examination in Pharmacy from any University of Odisha or equivalent recognized University as defined by UGC/AICTE.

The candidate should have obtained at least 50% marks (45% in case of candidate belonging to SC/ST category) at the qualifying examination.

There is no age limit to for admission to M. Pharm course.

4.6.3 M.Arch

Passed or appearing in 2012 Bachelor's Degree of examination in the relevant field in Architechture from any University of Odisha or equivalent recognized University as

defined by UGC/AICTE.

The candidate should have obtained at least 50% marks (45% in case of candidate belonging to SC/ST category) at the qualifying examination.

There is no age limit to for admission to M. Arch course.

IMPORTANT NOTES:

- Candidates should fulfill the requirements of reservations under clauses 2.1 as applicable.
- (ii) Women and Physically challenged candidates are not eligible for admission to Mining Engineering Course.
- (iii) Candidates desirous to be admitted to Engineering colleges/institutes of outside state under DTE&T quota seats have to fulfil other conditional eligibility requirements of the institute concerned, as per data to be received by OJEE from D.T.E.&T, Odisha.
- (iv) The Govt. of Odisha will not be responsible for any regulation of service where such requirement for age exists. The student should take admission at his/her own risk, as regards to age.
- 5. Subjects for appearing at OJEE-2012:
- (a) All candidates seeking admission to 1st year degree courses in Engineering/Technology shall have to appear in Physics, Chemistry and Mathematics.
- (b) Candidates seeking admission to MBBS/BDS course shall have to appear in Physics, Chemistry and Biology.
- (c) Candidates seeking admission to Engineering/ Technology and MBBS/ BDS course shall have to appear in Physics, Chemistry, Mathematics and Biology.
- (d) Candidates seeking admission to B. Pharm. course shall have to appear in Physics, Chemistry and either in Mathematics or Biology or both.
- (e) All Diploma holders seeking admission to 2nd year Degree courses under Lateral Entry scheme shall have to appear entrance test in one paper as follows

For Diploma in Engineering / Technology shall cover the syllabus of Mathematics, Basic Electrical Engineering, and Engineering Mechanics (detail syllabus given in page no. 34 and 35).

For Pharmacy stream, the paper shall cover the syllabus of part - I and part - II of Diploma in Pharmacy as per the Education Regulation - 1991 of Pharmacy Council of India.

- (f) All B.Sc. or +3 Sc. with Mathematics in +2 level candidates seeking admission to 2nd year Degree Engineering courses under Lateral Entry scheme shall have to appear +3 Sc. / B.Sc. Paper-I (+3 Sc. / B.Sc. Mathematics or (+3 Sc. / B.Sc. Biology) and +3 Sc. / B.Sc. Paper-II (+3 Sc. / B.Sc. Physics and +3 Sc. / B.Sc. Chemistry).
- (g) All candidates seeking admission to MCA course shall have to appear in Mathematics and Computer Awareness (in one sitting).
- (h) Candidates seeking admission to MBA / PGDM / PGCM / PGDM (Executive) course shall have to appear an Entrance test in verbal and analytical reasoning, general knowledge, comprehension and computer and business fundamentals (in one sitting).
- (i) All candidates seeking admission to 1st year Master Degree courses in Engineering/ Technology/ Pharmacy/Architecture shall have to appear the respective courses examination as per detail syllabus of BPUT regulation.
- (j) All candidates seeking admission to 1st year degree courses in Architecture shall have to appear in Physics, Chemistry and Mathematics.

DISCIPLINES

The intake capacity of the colleges based on approval of AICTE along with grant of affiliation from BPUT for affiliated colleges shall be considered for counselling process.

TABLE-II

AVAILABILITY OF SEATS (DISCIPLINE WISE) IN ENGINEERING AND TECHNOLOGY STREAM (2011) as an Indicator.

(A) Government Colleges offering B.Tech Programme

SI. No.	Name of the College	Year of Establish ment	Tuition fee	СНЕМ.	CIVIL	COMP. SC. & Engg.	ECE or ETC	ELEC T.	EEE	EIE	ΙΤ	ME CH	OTHERS
1	College of Engineering & Technology, Bhubaneswar	1982	*		30	60 (S.S.C.)		45		30	60 (S.S.C.)	45	Fashion Tech - 30(S.S.C.) TEXTILE - 40 BIOTECH - 30 (S.S.C.)
2	Central Institute of plastic Engineering and technology, Bhubaneswar	2008	*										Plastics Engg 60 Manufacturing Engg & Tech - 60
3	Government College of Engineering Kalahandi, Bhawanipatna	2009	*		60	60		60				60	
4	Indira Gandhi Institute of Technology, Sarang	1982	*	30	30	45 (S.S.C.)	45 (S.S.C.)	45				45	Metallurgical and Materials Engineering - 30
5	International Institute of Information Technology, Bhubaneswar (Self Sustaining Course)	2009	*			60 (S.S.C.)	60 (S.S.C.)		60 (S.S.C.)		60 (S.S.C.)		
6	Odisha School of Mining Engineering, Keonjhar	1998	*					60				60	Metallurgical - 20 Mining - 30 Mineral - 20
7	Parala Maharaja Engineering College, Berhampur	2009	*		60	60		60				60	
8	Veer Surendra Sai University of Technology, Burla	1956	*		30+ 30 (S.S.C.)	30+ 30 (S.S.C.)		60	30+ 30 (S.S.C.)		40 (S.S.C.)	60	Production –30+ 30(S.S.C.), Communication Engg -60

S.S.C. : Self Sustaining Course (S.S.C. tuition fee is higher than normal course tuition fee) (B) Private Colleges offering B.Tech Programme

SI. No.	Name of the College	Year of Establish ment	Tuition fee per annum in INR	EIE	СНЕМ.	CIVIL	COMP. SC. & ENGG.	EEE	ECE	E &TC	ELECT	AEIE	IT	MECH	OTHERS
1	Adarsha College of Engineering, Saradhapur, PO-Kumurisingha, Angul	2009	44,000/-			60	60	60	60		60			120	
2	Ajay Binay Institute of Technology, Sector-I,CDA , Cuttack	1998	50,000/-	60		60	60	60		120	60			60	
3	Apex Institute of Technology & Management, Johal, Pahal, Bhubaneswar	2008	56,000/-	60			60	120	120				60	60	
4	Aryan Institute of Engineering & Technology, Barakuda, Panchagaon Khurda, Bhubaneswar	2009	54,000/-			60	60	60	60		60			120	

SI. No.	Name of the College	Year of Establish ment	Tuition fee per annum in INR	EIE	СНЕМ.	CIVIL	COMP. SC. & ENGG.	EEE	ECE	E &TC	ELECT	AEIE	IT	MECH	OTHERS
5	Balasore College of Engineering & Technology, Sergarh, Balasore,	2001	45,000/-	60			60			120	60		60	120	
6	Barrister Ranjit Mohanty International Institute of Technology, Pandra, Rasulgarh, Bhubaneswar.	2008	66,000/-				60	60		90				60	Information Tech and Engg 60
7	Bhadrak Institute of Engineering & Technology, Barapada, Bhadrak	1997	47,000/-			60	90			90	60		60	60	
8	Bhubaneswar College of Engineering, Khajuria, Damanabhuin, Jankia, Khurda	2011	*			60			60					60	Computer Engg - 60
9	Bhubaneswar Engineering College (BEC), Gramadiha, Pittapally, Bhubaneswar.	2008	63,000/-			120	60	60		120				60	
10	Bhubaneswar Institute of Industrial Technology, Pandiapada, Retanga, Khurda, Bhubaneswar.	2010	40,000/-			60			60		60			60	Metallurgic al - 60
11	Bhubaneswar Institute of Technology, InfoValley, Harapur, Bhubaneswar.	2009	55,000/-			60	60	90	60					60	
12	Black Diamond College of Engineering & Technology, Balijori, Jharsuguda.	2008	64,000/-				60			60	60			120	
13	C. V. Raman College of Engineering, Bidyanagar Janla, Khurda, Bhubaneswar	1997	68,000/-		60	60	120			180	120	60	60	120	
14	Capital Engineering College, Plot No-1293, Mahatapala, Khurda	2010	40,000/-				60	60	60		60			60	
15	College of Engineering Bhubaneswar, PLOT NO-1(A), CNI Complex, Patia, Chandrasekharpur, Bhubaneswar	1999	59,000/-			60	120	90		120	60		60	120	Automobile- 60
16	Dhaneswar Rath Institute of Engineering & Management Studies, Kairapari, Kotsahi (Tangi), Cuttack	1999	65,000/-			60	90			120	120	60	60	60	
17	Eastern Academy of Science & Technology, Phulnakhra, Bhubaneswar	2001	65,000/-				60		60		60			60	Computer Science - 60 Environment al -30
18	Einstein Academy of Technology and Management, Baniatangi, Bajapur, Khurda, Bhubaneswar.	2009	53,000/-			60	60	60	60		60			60	
19	Eklavya College of Technology & Science, Kusumati, Jatni, Khurda, Bhubaneswar	2009	49,000/-				60	120	60			60		60	
20	Gandhi Academy of Technology and Engineering, Golanthara, Konisi, Ganjam, Berhampur	2009	52,000/-			60			60		120			120	
21	Gandhi Engineering College, Madanpur, Off NH 5 on Gahira Square, Badaraghunathpur, Bhubaneswar, Khurda.	2006	59,000/-				120	120	120					120	
22	Gandhi Institute for Education & Technology, Baniatangi, Bajpur Khurda.	2009	55,000/-			60	60	120	60					120	

SI. No.	Name of the College	Year of Establish ment	Tuition fee per annum in INR	EIE	СНЕМ.	CIVIL	COMP. SC. & ENGG.	EEE	ECE	E &TC	ELECT	AEIE	IT	MECH	OTHERS
23	Gandhi Institute of Advanced Computer & Research(GIACR),Prajukti Vihar Aurobindo Marg, Rayagada	2001	52,000/-			60	90	60	90				60	90	
24	Gandhi Institute for Technological Advancement(GITA), Bhubaneswar	2005	68,000/-				120	120	120		60			60	
25	Gandhi Institute for Technology, Gangapada, Bhubaneswar, Badaraghunathpur, Madanpur, Jaanla	2006	52,000/-				60	120	120				60	120	
26	Gandhi Institute of Engineering & Technology, Gobiriguda, Kharling, Gunupur, Rayagada	1997	68,000/-		60	60	180	90	120		60	180	60	180	Bio Tech - 30 Metallurgic al -30
27	Gandhi Institute of Excellent Technocrats, Princess Avenue, Ghangapatna, Bhubaneswar, Kantabada, Khurda,	2009	51,000/-			60	60		60		60			120	
28	Gandhi Institute of Industrial Technology, Golanthara, Kanisi, Ganjam, Berhampur.	2008	55,000/-				90	120	90				60	60	
29	Gandhi Institute of Science and Technology, Kholiguda, Kothapeta, Rayagada.	2008	55,000/-			60	60	60	90		90		60	60	
30	Gandhi Institute of Technology and Management (GITAM), Saraswati Vihar, Gramadiha, Gangapada, Janala, Khurda, Bhubaneswar.	2008	56,000/-				60	60	120		60			60	
31	Ghanshyam Hemalata Institute of Technology & Management, Rasananda Jena Vihar, Bhuan, Chhaitana, Puri	1997	55,000/-				60			90	90			60	
32	Gopal Krishna College of Engineering & Technology, Gourahari Vihar, Raniput, Jeypore, Koraput	1999	45,000/-			30				43	30				
33	Gurukul College of Engineering for Women, Jamujhari, Chattabara, Bhubaneswar	2009	46,000/-			60	60	120		60		60		60	
34	Gurukul Institute of Technology, Jamujhari, Chhatabar	2008	45,000/-			60	60	120	60				60	60	
35	Hi-Tech College of Engineering, Pandara, G.G.P Colony, Rasulgarh, Bhubaneswar	2009	54,000/-			60	60	120						120	[Electronics & Communication Engg (Industry Integrated)]- 60
36	HI-Tech Institute of Technology, Industrial Estate, Khurda, Bhubaneswar	2008	64,000/-			60	60	120	120				30	60	
37	Indic Institute of Design and Research, Indic Heights, Muktapur, Khurda, Bhubaneswar	2008	64,000/-			60	60	60	60		60	60		60	
38	Indotech College of Engineering, , Plot NO 144, Mallipada, Pallahat, Khurda	2009	45,000/-			60	60	60		60	60			60	
39	Indus College of Engineering, Barakuda Height, Bhubaneswar	2007	52,000/-			60	60	60	90		60			60	
40	International Institute of Engineering & Technology, 406, Glimses Palace, Bomikhal	2010	40,000/-				60		60		60			60	

SI. No.	Name of the College	Year of Establish ment	Tuition fee per annum in INR	EIE	СНЕМ.	CIVIL	COMP. SC. & ENGG.	EEE	ECE	E &TC	ELECT	AEIE	IT	MECH	OTHERS
41	Jagannath Institute of Engineering & Technology, Phase-II, New Industrial Estate, Jagatpur, Cuttack	1996	46,000/-				60			120				60	
42	Kalam Institute of Technology, Govinda Vihar, Govinda Pur, Laxmipur, Berhampur, Ganjam.	2008	53,000/-			60	60	60	60				60	120	
43	KMBB College of Engineering and Technology, NH-5, Daleiput, Khurda	2009	53,000/-			60	60	60	60		60			120	
44	Konark Institute of Science and Technology, PO. Box NO. 21, Technopark, Jatni, Bhubaneswar	2002	57,000/-				90			120	90	30		120	
45	Koustuv Institute of Technology, Plot No-2, KGI Campus,CNI Complex Chandrasekharpur, Bhubaneswar	2008	55,000/-			60	60	60		60			60	60	
46	Koustuv Institute of Self Domain, Plot NO: 1(B), Sector-B, Patia, Chandrasekharpur.	2001	52,000/-				120	120		120			60		
47	Krupajal Engineering College, Pubasasan, Kausalyaganga	1999	64,000/-			60	120	60		120	90	60	60	90	
48	Kruttika Institute of Technical Education, Ghangapatna	2010	40,000/-				60		60		60	60		60	
49	Maharaja Institute of Technology, Taraboi, Back Side of Barunei Hills, Near IIT, Bhubaneswar, Khurda	2008	52,000/-			60	60		60		120			120	
50	Mahavir Institute of Engineering and Technology, Mahavir Nagar, Bhubaneswar, Paniora, Palashpur, Khurda.	2002	59,000/-			60	90	60		120		60	60	60	Biomedical -30
51	Majhighariani Institute of Technology and Science, Sriram Vihar, Bhujabala, Kolnara, Rayagada	1999	52,000/-				90	60	90					120	Bio Technology- 40
52	Modern Engineering & Management Studies, Banaparia, Kuruda, Balasore	2008	55,000/-	60		60	60		60		60			60	
53	Modern Institute of Technology and Management, Bhagabatipur, Janla, Kantabada, Khurda, Bhubaneswar	2008	56,000/-			60	60	120	60		60			60	
54	Nalanda Institute of Technology, Bhudhist Villa, Nebad Bhuasani Temple Square, Similipatna, Chandaka, Bhubaneswar	2006	52,000/-			60	60		120		60			120	
55	National Institute of Science & Technology, Palur Hills, Berhampur	1996	68,000/-	60			120	120	120				90		
56	Nigam Institute of Engineering & Technology, Baranga, Cuttack	2009	45,000/-				60	60		60				60	
57	NM Institute of Engineering & Technology, Sijua, Patrapada, Bhubaneswar	2005	67,000/-				120	60	120				60	120	
58	Odisha Engineering College, Nabajyoti Vihar, Nijigarh Kurki, Jatni, Harirajpur, Khurda.	1986	64,000/-			120	120			120	120		90	120	
59	Oxford College of Engineering and Management, Ramachandrapur, Bhatapatna, Balianta, Khurda, Bhubaneswar	2009	37,000/-			60	60	60		60	60			120	

SI. No.	Name of the College	Year of Establish ment	Tuition fee per annum in INR	EIE	СНЕМ.	CIVIL	COMP. SC. & ENGG.	EEE	ECE	E &TC	ELECT	AEIE	IT	MECH	OTHERS
60	Padmanava College of Engineering, Kuarmunda, Rourkela, Sector -4	1999	52,000/-			30	90	60		90			60	45	
61	Padmashree Krutartha Acharya College of Engineering, Chakarkend, Bargarh	2002	45,000/-			60	60			60	120	30		120	
62	Purushottam Institute of Engineering & Technology, Mandiakudar, Kansbahal	1999	48,000/-				120	90		120		60	30	60	
63	Raajdhani Engineering College, Near Mancheswar Rly. Station, Mancheswar, Bhubaneswar	2006	55,000/-			60	90	60	90				60	120	
64	Radhakrishna Institute of Engineering and Technology (RITE), Plot No1, Khurda Industrial Estate, Khurda, Bhubaneswar	2010	40,000/-			60	60		60		60			60	
65	Rahul Institute of Engineering and Technology, Tatadapalli Village, Golanthra Junction, Konisi Tahsil, Berhampur, Ganjam	2009	46,000/-			60	60	60	60				60	60	
66	Rayagada Institute of Technology & Management, Pitamahal,Rayagada	2010	40,000/-			60		60	60					60	
67	Roland Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Berhampur, Ganjam	2002	52,000/-			60	90	60	60			30		60	
68	Samanta Chandra Institute of Technology & Management, Janiguda, Semiliguda, Koraput	2001	45,000/-			60	60		90		60	30		60	
69	Sanjaya Management Institute of Technology, Brudaban Bihar, Ankushpur, Ganjam	1997	45,000/-			30	60	60		90	60			60	
70	Satyasai Engineering College, Srikona (Chandipur Sea Beach Road) Panjibag, Sunhat, Balasore	1999	52,000/-			60	60			60	120	60		120	
71	Seemanta Engineering College, AT- Mayurvihar, Jaunti, Jharpokharia, Mayurbhanj.	1997	49,000/-	60		30	90			120	60			120	
72	Shibani Institute of Technical Education(SITE), Chhatabar Janla (Bhubaneswar), Khurda	2009	53,000/-			60	60	60		60				120	
73	Silicon Institute of Technology, Silicon Hills, Patia, Khurda, Bhubaneswar,	2001	68,000/-				120	120	180			60	60		
74	Silicon Institute of Technology Silicon West, Sason, Sambalpur	2009	53,000/-			60	60		120		120			60	
75	Sophitorium Engineering College, In Front Road of Collector's Office, Khurda, Baniatangi, Khurda, Bhubaneswar	2009	55,000/-			60	60		120		60			120	
76	Spintronic Technology and Advanced Research, Taraboi, Jatani, Khurda Bhubaneswar	2009	53,000/-			60	60	60	60					120	
77	Srinix College of Engineering, Ranipatna, Balasore	2009	38,000/-			60	60	60		60				60	

SI. No.	Name of the College	Year of Establish ment	Tuition fee per annum in INR	EIE	CHEM.	CIVIL	COMP. SC. & ENGG.	EEE	ECE	E &TC	ELECT	AEIE	IT	MECH	OTHERS
78	Subas Institute of Technology Gyan Vihar, Barang, Bhubaneswar	2008	56,000/-			60	60	60		60			60	120	
79	Suddhananda Engineering and Research Center, Nachhipur, Bhatapatna, Khurda, Bhubaneswar	2009	54,000/-			60				60	60			60	
80	Sundargarh Engineering College, Kirei, Sundargarh	2007	45,000/-				60		60		60			60	
81	Synergy Institute of Engineering & Technology, Banamaliprasad, By The Side of NH-42, Dhenkanal.	1999	64,000/-			60	120			120	90		30	120	
82	Synergy Institute of Technology, Bhimpur, Phulnakhara, Pahala, Khurda Bhubaneswar.	2009	55,000/-			60	60	60	60		60	60		60	
83	TempleCity Institute of Technology & Engineering (TITE), Bhubaneswar, Plot No. F/12, IID Centre Knowledge Campus, Barunei, Khurda,	2007	45,000/-			60	60	60	60		60		60	120	
84	The Techno School, 361-A, Patrapada, Khurda, Bhubaneswar.	2005	50,000/-			60	90	60	90			60		60	
85	Trident Academy of Technology, F2A, Infront of Infocity, Chandaka Industrial Estate, Chandrasekharpur, Bhubaneswar	2005	59,000/-				120	120		120			60	60	
86	Vedang Institute of Technology, Durgaprasad, Ramachandi, Khurda	2009	50,000/-				60	60		60				60	
87	Vignan Institute of Technology & Management, Bhairavi Vihar, Haradanga Village, Mantridi, Golanthara, Berhampur, Ganjam	2008	58,000/-				60	60		90		60	60	120	
88	Vijayanjali Institute of Technology, Khantapada, Balasore	2009	55,000/-			60	60	60		60				120	
89	Vikash College of Engineering For Women, Vikash Enclave, Barahaguda Canal Chowk	2009	33,000/-			60	60	60	60			60		60	
90	VITS Engineering College, Damanabhuin, Khurda	2009	44,000/-				60			60	60			60	
91	Vivekananda Institute of Technology, Chhatabar, Khurdha Bhubaneswar	2009	55,000/-			60	60	60		60	60			120	

^{*} The tuition fee will be communicated before the counselling for admission through OJEE website and in the counselling brochure after due approval from Government.

Upto a maximum of twenty percent of sanctioned intake capacity of 2011-2012 in appropriate discipline of engineering (these seats will be over and above the intake capacity) and carry forward vacant seats of first year of engineering (as per list submitted by JEE-2011) will be available for lateral entry at third semester level.

(*) Abbreviation for Disciplines :

BIOTECH - Biotechnology EIE - Electronics & Instrumentation Engineering

CHEM Chemical Engg. ΙT Information Technology COMP.Sc. Computer Sc. Engg. MECH Mechanical Engg. **ELECT** Electrical Engg. MET Metallurgy & Meterial Sc. EEE Electrical & Electronics Engg. MANU Manufacturing Sc. & Engg.

TABLE- III
(A) Government Colleges offering MBBS/BDS Programme

SI. No.	Name of the College	Tuition fee per annum in INR	MBBS Seats	BDS Seats
1	Sriram Chandra Bhanj Medical College, Cuttack	*	128	42
2	Maharaja Krushna Chandra Gajapati Medical College, Berhampur	*	128	-
3	Veera Surendra Sai Medical College, Burla	*	128	-

(B) Private Colleges offering MBBS/BDS Programme

SI. No.	Name of the College	Tuition fee per annum in INR	MBBS Seats	BDS Seats
1	Hi-Tech Medical College	4,25,000/-	100	-
2	Hi-Tech Dental College	2,10,000/-	-	100

TABLE-IV
(A) Private Colleges offering B.Pharm Programme

SL		Year of	Tuition	Total
No	Name of the College	Establis hment	fee per annum in INR	No. of Seats
1	College of Pharmaceutical Science, Marine Drive Road Baliguali, Puri	2006	40,000/-	60
2	College of Pharmaceutical Sciences, Berhampur, Mohuda Ganjam	1995	50,000/-	60
3	Dadhichi College of Pharmacy, Vidya Vihar, Sundergram, Cuttack	2005	40,000/-	60
4	Gayatri College of Pharmacy, Gayatri Vihar, Jamadarpali Sambalpur	1999	45,000/-	60
5	Gayatri Institute of Science and Technology (GIST), Gyan Vihar, Rayagada, Gunupur	2004	40,000/-	60
6	HI-Tech College of Pharmacy, Pandara, Rasulgarh, Khurda Bhubaneswar	2009	40,000/-	60
7	IMT Pharmacy College, Sai Bihar , New Nabakalebara Road, Gopalpur, Puri	2007	40,000/-	60
8	Indira Gandhi Institute of Pharmaceutical Sciences, I.R.C. Village, Bhubaneswar	1994	50,000/-	60
9	Institute of Pharmacy & Technology, Salipur, Cuttack	1982	50,000/-	60
10	Jeypore College of Pharmacy, Rondapalli, Jeypore, Koraput,	2001	49,000/-	60
11	Kanak Manjari Institute of Pharmaceutical Sciences, Chhend Colony, Rourkela	1982	50,000/-	60
12	Roland Institute of Pharmaceutical Sciences, Khodasingi	1986	50,000/-	60
13	Royal College of Pharmacy & Health Science, Andhapasara Road	2002	50,000/-	60
14	Seemanta Institute of Pharmaceutical Sciences, Jharpokharia, Mayurbhanj	1982	50,000/-	60
15	Sri Jayadev College of Pharmaceutical Sciences, Naharkanta, Balianta, Khurda, Bhubaneswar.	1983	50,000/-	60
16	The Pharmaceutical College, Samaleswari Vihar, Tingipali, Mohada, Barpali		40,000/-	60

^{*} The tuition fee will be communicated before the counselling for admission through OJEE website and in the counselling brochure after due approval from Government.

TABLE- V
(A) Government Colleges offering MCA Programme

SL No	Name of the College /University(GOVT.)	Year of Establis hment	Tuition fee per annum in INR	Total No. of Seats
1	Berhampur University, Bhanja Vihar		*	30
2	Centre for IT Education, Bhubaneswar	2001	55,000/-	60
3	College of Engineering & Technology, Bhubaneswar	1982	*	30
4	Fakirmohan University, Balasore		*	30
5	Gangadhar Meher College (Autonomous), Sambalpur	1995	*	30
6	Indira Gandhi Institute of Technology, Sarang	1982	*	30
7	Institute of Management & Information Technology , Cuttack	1962	*	60
8	Khalikote College (Autonomous), Khalikot	1998	*	30
9	North Odisha University, Baripada		*	30
10	Ravenshaw University, Cuttack	1998	*	30
11	Utkal University, Vani Vihar	1990	*	30
12	Veer Surendra Sai University of Technology, Burla,	1956	*	30

(B) Private Colleges offering MCA Programme

SL No	Name of the College	Year of Establis hment	Tuition fee per annum in INR	Total No. of Seats
1	Academy of Business Administration, Harida, Kuruda, Balasore	1993	55,000/-	60
2	Ajay Binay Institute of Technology, Sector -1, CDA, Cuttack	1998	40,000/-	60
3	Balasore College of Engineering and Technology, Sergarh,Balasore	2001	30,000/-	60
4	Bhadrak Institute of Engineering & Technology, Barapada Bhadrak	1999	40,000/-	60
5	Bhubaneswar Engineering College(BEC), NK Nagar, Gramadiha, Pittapally, Bhubaneswar	2008	30,000/-	60
6	BRM Institute of Management and Information Technology, Puba Sasan, Koushlya Ganga, Bhubaneswar	2007	43,000/-	60
7	C.V. Raman Computer Academy, Bidya Nagar, Mahura, Janla	2000	55,000/-	120
8	College of Engineering Bhubaneswar, Plot No-1(A), CNI Complex, Patia, Chandrasekharpur, Bhubaneswar	2007	55,000/-	60
9	Dr. Ambedkar Memorial Institute of Information Technology, Jagda, Rourkela	2001	55,000/-	120
10	Gandhi Engineering College, Badaraghunathpur, Madanpur Off NH 5, On Gahira Square Bhubaneswar	2006	30,000/-	60
11	Gandhi Institute for Technological Advancement (GITA), Badaraghunathpur, Madanpur, Jaanla, Bhubaneswar	2005	30,000/-	60
12	Gandhi Institute for Technology, Gramadiha, Gangapada, Janla, Khurda, Bhubaneswar	2006	30,000/-	60

Gandhi Institute of Advanced Computer & Research, Prajukti Vihar, Aurobindo Marg, Rayagada	2000	55,000/-	60
Gandhi Institute of Computer Studies, Gobiriguda, Kharling,	2003	55,000/-	60
Gandhi Institute of Technology and Management(GITAM), Saraswati Vihar, Gramadiha, Gangapada, Janala, Bhubaneswar, Khorda	2008	*	60
Gayatri Institute of Computer & Management Studies (GICMS), Gyan Vihar, Regeda, Gunupur	1999	40,000/-	45
Indian Institute of Science and Information Technology(IISIT), Prasnagarbha, Mancheswar Industrial Estate, Bhubaneswar	1995	55,000/-	90
Institute of Professional Studies and Research, IPSAR House, SEC-6, CDA, Cuttack	1993	*	60
Koustuv Institute of Self Domain, Patia, Chandrasekharpur	2001	30,000/-	60
Koustuv Institute of Technology, CNI Complex Chandrasekharpur, Bhubaneswar	2008	40,000/-	60
Kushagra Institute of Information and Management Science, Pira Bazar, Gopalpur, In Front of Sadar Police Station	1999	40,000/-	120
Mahavir Institute of Engineering and Technology, Mahavir Nagar, Bhubaneswar, Paniora,Khurda	2002	30,000/-	60
Nalanda Institute of Technology, Bhudhist Villa, Nebad Bhuasani Temple Square, Chandaka, Bhubaneswar	2007	30,000/-	60
National Institute of Science and Technology, Palur Hills, Beharmpur	1996	55,000/-	60
NIIS Institute of Business Administration, Sarada Vihar Madanpur, Bhubaneswar Khurda	2008	30,000/-	60
NM Institute of Engineering & Technology, Sijua, Patrapada, Bhubaneswar	2005	43,000/-	60
Odisha Computer Academy, Prashanti Vihar, Puba Sasan, Kausalyaganga, Bhubaneswar	1996	55,000/-	120
PJ College of Management & Technology, Swatik Nagar, Kesora, Bhubaneswar	2007	*	60
Purushottam Institute of Engineering & Technology, Mandiakudar, Kansbahal	1999	43,000/-	60
Rajdhani Engineering College, Mancheswar Bhubaneswar, Khurda	2006	30,000/-	60
Regional College of Management Autonomous, Chandrasekharpur Bhubaneswar		55,000/-	120
Roland Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Beharmpur	2002	50,000/-	60
Rourkela Institute of Management Studies, Gopabandhu Nagar, Chhend, Rourklea	1984	55,000/-	60
Rourkela Institute of Technology, Kalunga, RIT Campus	1984	*	60
	Computer & Research, Prajukti Vihar, Aurobindo Marg, Rayagada Gandhi Institute of Computer Studies, Gobiriguda, Kharling, Gunupur Gandhi Institute of Technology and Management (GITAM), Saraswati Vihar, Gramadiha, Gangapada, Janala, Bhubaneswar, Khorda Gayatri Institute of Computer & Management Studies (GICMS), Gyan Vihar, Regeda, Gunupur Indian Institute of Science and Information Technology(IISIT), Prasnagarbha, Mancheswar Institute of Professional Studies and Research, IPSAR House, SEC-6, CDA, Cuttack Koustuv Institute of Self Domain, Patia, Chandrasekharpur Bhubaneswar Koustuv Institute of Technology, CNI Complex Chandrasekharpur, Bhubaneswar Kushagra Institute of Information and Management Science, Pira Bazar, Gopalpur, In Front of Sadar Police Station Mahavir Institute of Engineering and Technology, Mahavir Nagar, Bhubaneswar, Paniora, Khurda Nalanda Institute of Technology, Bhudhist Villa, Nebad Bhuasani Temple Square, Chandaka, Bhubaneswar National Institute of Science and Technology, Palur Hills, Beharmpur NIIS Institute of Business Administration, Sarada Vihar Madanpur, Bhubaneswar National Institute of Science and Technology, Sijua, Patrapada, Bhubaneswar PJ College of Management & Technology, Syauth Nagar, Kesora, Bhubaneswar PJ College of Management & Technology, Syauth Nagar, Kesora, Bhubaneswar PJ College of Management & Technology, Syauth Nagar, Kesora, Bhubaneswar PJ College of Management & Technology, Syauth Nagar, Kesora, Bhubaneswar PJ College of Management & Technology, Syauth Nagar, Kesora, Bhubaneswar Purushottam Institute of Engineering College, Mancheswar Bhubaneswar, Khurda Regional College of Management Autonomous, Chandrasekharpur Bhubaneswar Roland Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Beourkela Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Beourkela Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Beourkela Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Beourkela Institute of Technology, Surya Vihar,	Computer & Research, Prajukti Vihar, Aurobindo Marg, Rayagada Gandhi Institute of Computer Studies, Gobiriguda, Kharling, Gunupur Gandhi Institute of Technology and Management(GITAM), Saraswati Vihar, Gramadiha, Gangapada, Janala, Bhubaneswar, Khorda Gayatri Institute of Computer & Management Studies (GICMS), Gyan Vihar, Regeda, Gunupur Indian Institute of Science and Information Technology (IISIT), Prasnagarbha, Mancheswar Industrial Estate, Bhubaneswar Institute of Professional Studies and Research, IPSAR House, SEC-6, CDA, Cuttack Koustuv Institute of Science, Pira Bazar, Gopalpur, In Front of Sadar Police Station Mahavir Institute of Engineering and Technology, Mahavir Nagar, Bhubaneswar, Paniora, Khurda Nalanda Institute of Engineering and Technology, Mahavir Nagar, Bhubaneswar Paniora, Khurda Nalanda Institute of Technology, Bhudhist Villa, Nebad Bhuasani Temple Square, Chandaka, Bhubaneswar National Institute of Science and Technology, Palur Hills, Beharmpur NIIS Institute of Business Administration, Sarada Vihar Madanpur, Bhubaneswar Khurda NIIs Institute of Engineering & Technology, Sijua, Patrapada, Bhubaneswar Purushottam Institute of Engineering & Technology, Swatik Nagar, Kesora, Bhubaneswar Purushottam Institute of Engineering & Technology, Swatik Nagar, Kesora, Bhubaneswar Purushottam Institute of Engineering & Technology, Swatik Nagar, Kesora, Bhubaneswar Purushottam Institute of Engineering & Technology, Mandiakudar, Kansbahal Rajdhani Engineering College, Mancheswar Bhubaneswar Purushottam Institute of Engineering College, Mancheswar Bhubaneswar Roland Institute of Technology, Mandiakudar, Kontharia, Puba Sasan, Kausalyaganga, Bhubaneswar Purushottam Institute of Engineering College, Mancheswar Bhubaneswar Roland Institute of Technology, Mandiakudar, Kontharia Singhi, Golanthara, Gopabandhu Nagar, Chhend, Rourklea Rourklea Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Puba Sasan, Chend, Rourklea Rourklea Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Puba	Computer & Research, Prajukti Vihar, Aurobindo Marg, Rayagada Gandhi Institute of Computer Studies, Gobiriguda, Kharling, Gunupur Gandhi Institute of Technology and Management (GITAM), Saraswati Vihar, Gramadiha, Gangapada, Janala, Bhubaneswar, Khorda Gayatri Institute of Computer & Management Studies (GICMS), Gyan Vihar, Regeda, Gunupur Indian Institute of Science and Information Technology(IISIT), Prasnagarbha, Mancheswar Industrial Estate, Bhubaneswar Industrial Estate, Bhubaneswar Industrial Estate, Bhubaneswar Industrial Estate, Bhubaneswar Institute of Professional Studies and Research, IPSAR House, SEC-6, CDA, Cuttack Koustuv Institute of Self Domain, Patia, Chandrasekharpur Bhubaneswar Kushagra Institute of Information and Management Science, Pira Bazar, Gopalpur, In Front of Sadar Police Station Mahavir Institute of Technology, CNI Complex Chandrasekharpur, Bhubaneswar Kushagra Institute of Technology, CNI Complex Chandrasekharpur, Bhubaneswar Rushagra Institute of Technology, Sadar Police Station Mahavir Institute of Technology, Bhubaneswar, Paniora, Khurda Nalanda Institute of Technology, Bhubaneswar National Institute of Science and Technology, Mahavir Nagar, Bhubaneswar National Institute of Science and Technology, Palur Hills, Beharmpur NIIS Institute of Business Administration, Sarada Vihar Madanpur, Bhubaneswar National Institute of Engineering & Technology, Sijua, Patrapada, Bhubaneswar Purushottam Institute of Engineering & Technology, Rushanti Vihar, Puba Sasan, Kausalyaganga, Bhubaneswar Purushottam Institute of Engineering & Technology, Roultan Institute of Engineering & Technology, Mandiakudar, Kansbahal Rajdhani Engineering College, Mancheswar Purushottam Institute of Management Studies, Gopalandhu Nagar, Chandraskharpur Bhubaneswar Roland Institute of Technology, Surya Vihar, Kothari Singhi, Golanthara, Beournela Institute of Management Studies, Gopalandhu Nagar, Chhend, Rourklea Rourkela Institute of Technology, Surya Vihar, Rothari Singhi, Golanthara, Beournela Institute of Technology,

35	Seemanta Engineering College, Mayurvihar, Jaunti, Jharpokharia	1997	54,000/-	60
36	Silicon Institute of Technology, Silicon Hills, Patia, Bhubaneswar	2001	55,000/-	60
37	Srusti Academy of Management, Chandaka Industrial Estate, Patia, Bhubaneswar	2003	43,000/-	60
38	The Techno School, Patrapada, Bhubaneswar	2008	30,000/-	60
39	Trident Academy of Creative Technology, Chandrasekharpur, Bhubaneswar	1998	55,000/-	120
40	Trident Academy of Technology, Chandrasekharpur Bhubaneswar		*	60
41	United School of Business Management, Chandaka I.E Patia, Bhubaneswar		40,000/-	60

TABLE-VI (A) Government Colleges offering MBA Programme

		-	_	
SI. No.	Name of The College	Commenc ement of the course since	Tuition fee per annum in INR	Total No. of Seats
1	Berhampur University, Bhania Vihar		*	30
2	Centre for IT Education, Bhubaneswar	2004	59,000/-	60
3	Dhenkanal Automous College, Dhenkanal	2009	*	60
4	Fakirmohan University, Balesore		*	40
5	Gangadhar Meher College (Automous), Sambalpur	2005	*	60
6	Madhusudhan Institute of Cooperative Management, Bhubaneswar		50,000/-	60
7	Institute of Management & Information Technology, Cuttack	1962	*	90
8	North Odisha University, Baripada		*	30
9	SCS Automous College, Puri	2009	*	60
10	Utkal University, Vani Vihar		*	30

(B) Private Colleges offering MBA Programme

SI. No.	Name of The College	Commenc ement of the course since	Tuition fee per annum in INR	Total No. of Seats
1	Academy of Business Administration, Balesore	1993	76,000/-	120
2	Acdemy of Management & Information Technology, Bhubaneswar	2010	40,000/-	60
3	Krupajal Management Studies, Prasanli Bhar, Kausalya Ganga, Bhubaneswar	1997	94,000/-	240
4	Ajay Binay Institute of Technology, Cuttack	2007	65,000/-	60
5	Apex Institute of Technology and Management, Pahal	2009	50,000/-	60
6	Astha School of Management, Bhubaneswar	2008	80,000/-	120
7	Balasore College of Engineering and Technology, Balasore	2001	50,000/-	60

	Barabati Institute of Management		I	
8	Barabati Institute of Management Studies, Cuttack	2009	40,000/-	60
9	Bhubaneswar Institute of Management & Information Technology, Bhubaneswar	1996	75,000/-	120
10	Bhadrak Institute of Engineering & Technology, Bhadrak	2002	69,000/-	60
11	Biju Patnaik Institute of Information Technology & Management, Bhubaneswar	1999	95,000/-	180
12	Bhubaneswar Engineering College		50,000/-	60
13	BRM Institute of Management & Information Technology, Bhubaneswar	2003	95,000/-	120
14	Capital Institute of Mangement and Science (CIMS)	2010	40,000/-	60
15	Centre for Management Studies, Orissa Engineering College, Bhubaneswar	2001	76,000/-	60
16	College of Engineering Bhubaneswar, Bhubaneswar	2007	60,000/-	60
17	C.V. Raman College of Engineering, Bhubaneswar	2007	90,000/-	60
18	Dr. Ambedkar Memorial Institute of Information Technology, Rourkela	2001	52,000/-	60
19	Dhaneswar Rath Institute of Engineering and Management, Cuttack	2005	81,000/-	180
20	Eklavya College of Technology & Science, Khurda	2009	*	60
21	Gandhi Engineering College Bhubaneswar	2006	40,000/-	60
22	Gandhi Institute for Technological Advancement, Bhubaneswar	2009	40,000/-	60
23	Gandhi Institute for Technology, Bhubaneswar	2008	40,000/-	60
24	Gandhi Institute of Advanced Computer & Research, Rayagada	2007	60,000/-	60
25	Gandhi Institute of Management Studies, Gunupur	2002	73,000/-	120
26	Gayatri College of Management, Sambalpur	2009	40,000/-	120
27	Gayatri Institute of Computer & Management Studies, Gunupur		40,000/-	60
28	Global Institute of Management, Bhubaneswar	1997	85,000/-	120
29	Gurukul Instiitute of Technology, Janla	2009	*	60
30	Hi-Tech Institute of Technology, Khurda	2009	63,000/-	60
31	IIPM School of Management, Kansbahal	2007	95,000/-	60
32	Institute of Professional Studies and Research, Cuttack	1993	95,000/-	120
33	Kalam Institute of Technology, Berhampur	2009	*	60
34	Kushagra Institute of Information and Management, Cuttack	2008	*	60
35	Konark Institute of Science & Technology, Jatni, Khurda	2008	67,000/-	60
36	Koustuva Institute of Technology, Bhubaneswar	2008	40,000/-	60
37	Koustuva Institute of Self Domain, Bhubaneswar	2007	60,000/-	60
38	Mahavir Institute of Engineering and Technology, Bhubaneswar	2008	40,000/-	60
39	Modern Engineering & Management Studies, Balesore	2009	40,000/-	60

40	Modern Institute of Technology & Management, Khurda	2009	40,000/-	60
41	NIIS Institute of Business Administaration, Bhubaneswar	2008	75,000/-	120
42	NIIST International Institute of Management, Bhubaneswar	2009	*	60
43	National Institute of Science and Technology, Beharmpur	2007	78,000/-	60
44	NM Institute of Engineering & Technology, Bhubaneswar	2007	88,000/-	60
45	Post Graduate Centre for Management Studies, SMIT, Berahampur	1981	40,000/-	60
46	Purushottam Institute of Engineering & Technology, Kansbahal	2008	40,000/-	60
47	P.J. College of Management & Technology, Bhubaneswar	2007	60,000/-	60
48	Regional College of Management, Bhubaneswar	1995	95,000/-	180
49	Rajdhani College of Engineering and Management, Bhubaneswar	1999	85,000/-	180
50	Rajdhani Engineering College, Bhubaneswar	2008	40,000/-	60
51	Rourkela Institute of Technology, Kalunga	1984	40,000/-	60
52	Rourkela Institute of Management Studies, Rourkela	1984	95,000/-	180
53	RJ School of Management, Balesore	2008	80,000/-	60
54	Saraswat Institute of management , Kerenda, Khurda	2010	40,000/-	60
55	Satyananda Institute of Management and Information Technology	2011	*	120
56	Srusti Academy of Management, Bhubaneswar	2003	92,000/-	120
57	Suddhananda School of Management & Computer Science, Phulnakhara	2009	67,000/-	60
58	Trident Academy of Creative Technology, Bhubaneswar	2009	75,000/-	60
59	Trident A cademy of Technology, Bhubaneswar	2007	60,000/-	60
60	The Techno School, Bhubaneswar	2007	50,000/-	60
61	United School of Business Management, Bhubaneswar	2007	60,000/-	120
62	Vignan Institute of Technology & Management, Berhampur	2009	50,000/-	60

TABLE- VII (A) Government Colleges offering B.Arch Programme

SI.	Name of The College	Commenc e-ment of the course since	fee per	Total No. of Seats
1	College of Engineering and Technology, Bhubaneswar	1982	*	20

(B) Private Colleges offering B.Arch Programme

SI. No.	Name of The College	Commenc e-ment of the course since	fee per	Total No. of Seats
1	Piloo Mody College of Architecture, ABIT, Cuttack	1993	*	160 (General), 20 (Interior design) and 20 (Building Const. & Mgmt.)

^{*} The tuition fee will be communicated before the counselling for admission through OJEE website and in the counselling brochure after due approval from Government.

TABLE- VIII Private colleges offering PGDM / PGCM and PGDM (Executive) Programme

	1 Obin (Exocative) 1 regramme				
SI. No.	Name of the Institution	Tuition fee per annum in INR	Seats		
1	Affinity Business School, Bhubaneswar	*	PGDM-60, PGDM(Mkt) - 60		
2	BRM International Institute of Management, Berhampur	*	PGDM-60		
3	DRIEMS Business School, Cuttack	*	PGDM - 120		
4	HDF School of Management, Bhubaneswar	*	PGDM - 60, PGCM - 60		
5	Interscience Institute of Management & Technology (IIMT), Odisha, Khurda	*	PGDM - 120		
6	Indian Institute of Science and Information Technology(IISIT), Bhubaneswar	*	PGDM - 60		
7	International School of Business Management, Bhubaneswar	*	PGDM-60		
8	IPSAR B-School, Cuttack	*	PGDM - 60		
9	Koustuv Business School	*	PGDM - 120		
10	Krupajal Business School, Bhubaneswar	*	PGDM (FT) - 180		
11	Mahendra Institute of Management and Technical Studies, Bhubaneswar	*	PGDM - 60		
12	NIST Business School, Berhampur	*	PGDM - 60		
13	Presidency College , Berhampur	*	PGDM - 120		
14	Rajdhani College of Engineering and Management, Bhubaneswar	*	PGDM - 60		

TABLE- IX
(A) Government Colleges offering M.Tech /
M. Arch Programme

S.No.	Name of the Univ./Institution	Specialisation	Tuition fee	Seats
1	BPUT, Odisha	Mechanical Systems Design and Dynamics	*	10
		VLSI & Embedded System	*	10
	Central Institute of Plastic	Polymer Nanotechnology	*	18
2	Engineering and Technology, Bhubaneswar	Plastic Engineering	*	18

		Computer Science and Engineering	*	13
	College of	Industrial Engg.& managements	*	18
3	Engineering and Technology, Bhubaneswar	Information Technology	*	18
	2.1.020.1.00.110.1	Structural Engineering	*	18
		Architecture	*	20
4	IMIT, Cuttack	Information Technology	*	18
		Structural Engineering	*	18
5	IGIT, Sarang	Mechanical System Design	*	18
		Production Engineering	*	18
6	Berhampur University	Computer Science	*	20

(B) Private Colleges offering M.Tech Programme

S.No.	Name of the Univ./Institution	Specialisation	Tuition fee per annum in INR	Seats
1	Ajay Binay Institute of Technology, Sector-I,CDA, Cuttack	Computer Science and Engineering	*	18
2	Balasore College of Engineering	Communication Engineering	*	18
1	& Technology, Sergarh, Balasore	Heat Power and Thermal Engineering	*	18
3	Bhubaneswar Engineering College (BEC), Gramadiha, Pittapally Bhubaneswar.	Computer Science and Engineering	*	18
		Electronics and Telecommunications Engineering	75,000/-	18
		Chemical Engineering	75,000/-	18
	C. V. Raman College of	Information Technology	75,000/-	18
4	Engineering,	Mechatronics	75,000/-	18
4	Bidyanagar Janla, Khurda,	Industrial Engineering	75,000/-	18
	Bhubaneswar	Heat Power Engineering	75,000/-	18
		Electrical Engineering	75,000/-	18
		Computer Science and Engineering	75,000/-	36
	College of	Computer Science	65,000/-	18
5	Engineering Bhubaneswar PLOT NO-1(A),	Communication Systems	65,000/-	18
5	CNI Complex, Patia, Chandrasekharpur, Bhubaneswar	Heat Power Engineering	65,000/-	18

	Dhaneswar Rath	Electronics and Telecommunications Engineering	72,000/-	18
	Institute of Engineering &	Electrical Power System	72,000/-	18
6	Management Studies, Kairapari,	Computer Science and Engineering	72,000/-	18
	Kotsahi (Tangi), Cuttack	VLSI Design and Embedded Systems	72,000/-	18
		Power Electronics and Drives	72,000/-	18
	Eastern Academy of	Environmental Engineering	72,000/-	18
7	Science & Technology, Phulnakhra,	Electronics & Communication Engineering	72,000/-	18
	Bhubaneswar	Computer Science and Engineering	72,000/-	18
8	Gandhi Engineering College, Madanpur, Off NH 5 on Gahira	Electronics and Communications Engineering	*	18
J	Square, Badaraghunathpur, Khurda.	Computer Science and Engineering	*	18
	Gandhi Institute for Technological	Power Systems Engineering	*	18
9	Advancement	Thermal Engineering	*	18
	(GITA), Bhubaneswar	Computer Science and Engineering	*	18
	Gandhi Institute of Engineering & Technology, Gobiriguda, Kharling, Gunupur,	Applied Electronics and Instrumentation Engineering	75,000/-	18
		Electronics & Communication Engg	75,000/-	18
10		Computer Science and Engineering	75,000/-	18
10		Industrial Engineering	75,000/-	18
	Rayagada	Power Electronics	75,000/-	18
		CAD CAM	75,000/-	18
		Heat Power and Thermal Engineering	75,000/-	18
		Machine Design	75,000/-	18
	Kanada lantituta of	Computer Science and Engineering	63,000/-	18
11	Konark Institute of Science and Technology, PO. Box No. 21,	Electronics and Telecommunications Engineering	63,000/-	18
	Technopark, Jatni, Bhubaneswar	Mechanical Engineering (Thermal &Fluid Engineering)	63,000/-	18
	Koustuv Institute of	Computer Science and Engineering	57,000/-	18
12	Self Domain, Plot NO: 1(B), Sector-B,	Communication Systems	57,000/-	18
	Patia, Chandrasekharpur.	Information Technology	57,000/-	18
		Power Systems	57,000/-	18
		Heat Power Engineering	70,000/-	18
	Krupajal	Power Electronics and Drives	70,000/-	18
13	Engineering College, Pubasasan,	Electronics & Communication Engineering	70,000/-	18
	Kausalyaganga	Computer Science and Engineering	70,000/-	18
		Computer Science and Technology	70,000/-	18

	I	Flantanian and		
	Mahavir Institute of Engineering	Electronics and Telecommunications Engineering	65,000/-	18
14	and Technology, Mahavir Nagar, Bhubaneswar,	Computer Science and Engineering	65,000/-	18
	Paniora, Palashpur, Khurda	Power System Engineering	65,000/-	18
		Computer Engineering	65,000/-	18
	Majhighariani Institute of	Bio Technology	1,00,000/-	18
15	Technology and Science, Sriram Vihar, Bhujabala, Kolnara, Rayagada	Mechanical Engineering	57,000/-	18
		Electronics & Communications Engineering	75,000/-	18
		Computer Science and Engineering	75,000/-	18
16	National Institute of Science & Technology, Palur	Electrical Engineering (Power System Engineering)	75,000/-	18
10	Hills, Berhampur	Wireless Communication Technology	75,000/-	18
		VLSI and Embedded Systems Design	75,000/-	18
		Electronics and Instrumentation Engineering	75,000/-	18
		Mechanical Engineering	74,000/-	18
17	NM Institute of Engineering & Technology, Sijua, Patrapada, Bhubaneswar	Electronics & Communications Engineering	74,000/-	18
17		Electrical and Electronics Engineering	74,000/-	18
		Computer Science and Engineering	74,000/-	18
	Odisha Engineering	Computer Science and Engineering	70,000/-	18
18	College, Nabajyoti Vihar, Nijigarh Kurki, Jatni, Harirajpur, Khurda	Mechanical Engineering	70,000/-	18
	Raajdhani Engineering	Communication Systems	*	18
19	College, Near Mancheswar Rly.	Power System Engineering	*	18
	Station, Mancheswar, Bhubaneswar	Production Engineering	*	18
20	Satyasai Engineering College, Srikona (Chandipur Sea Beach Road) Panjibag, Sunhat, Balasore	Mechanical Engineering	*	18
	Silicon Institute of	Electronics and Communication Engineering	75,000/-	18
21	Technology, Silicon Hills, Patia,	Computer Science and Engineering	75,000/-	18
	Khurda, Bhubaneswar	Electrical and Electronics Engineering (Power System Engg.)	75,000/-	18

		Power Electronics and Drives	75,000/-	18
	Synergy Institute	VLSI and Embedded Systems	75,000/-	18
22	of Engineering & Technology, Banamaliprasad, By The Side of	Electronics & Communication Engineering	nication 75,000/-	
	NH-42, Dhenkanal	Production Engineering	75,000/-	18
		Computer Science and Engineering	75,000/-	36
23	TempleCity Institute of Technology & Engineering (TITE), Bhubaneswar, Plot No. F/12, IID Centre Knowledge Campus, Barunei, Khurda	Computer Science and Engineering	*	18
	The Techno	Electronics & Communication Engineering	*	18
24	School, 361-A, Patrapada,	Computer Science and Engineering	er Science *	18
	Khurda, Bhubaneswar	Electrical and Electronics Engineering (Power System Engg.)	*	18

TABLE- X (A) Government Colleges offering M.Pharm Programme

S.No.	Name of the Univ./Institution	Specialisation	Tuition fee per annum in INR	Seats
1		Pharmaceutical Technology	*	20
	Berhampur	Pharmaceutics	*	20
	University	Pharmaceutical Analysis and Quality Assurance	*	20

(B) Private Colleges offering M.Pharm Programme

S.No.	Name of the Univ./Institution	Specialisation	Tuition fee per annum in INR	Seats
1	College of Pharmaceutical Science, Marine Drive Road Baliguali, Puri	Pharmaceutics	53,000/-	18
	College of	Pharmaceutics	66,000/-	18
Pharmaceutical 2 Sciences, Berhampur,	Pharmaceutical Analysis and Quality Assurance	66,000/-	18	
	Mohuda Ganjam	Pharmaceutical Chemistry	66,000/-	10
	Dadhichi College of	Pharmacology	53,000/-	18
3	Pharmacy, Vidya Vihar, Sundergram, Cuttack	Pharmaceutics	53,000/-	18

		Pharmaceutics	60,000/-	18	
4	Gayatri College of Pharmacy, Gayatri	Pharmaceutical Analysis and Quality Assurance	60,000/-	18	
	Vihar, Jamadarpali	Pharmacognosy	60,000/-	18	
	Sambalpur	Pharmaceutical Technology	60,000/-	18	
		Pharmacology	60,000/-	18	
5	Gayatri Institute of Science and Technology (GIST), Gyan Vihar, Rayagada,	Pharmaceutics Pharmaceutical Analysis and Quality Assurance	53,000/-	18	
6	Gunupur IMT Pharmacy College, Sai Bihar , New Nabakalebara Road, Gopalpur, Puri	Pharmaceutics	53,000/-	18	
		Pharmaceutics	66,000/-	18	
	Indira Gandhi Institute of Pharmaceutical	Pharmaceutical Analysis and Quality Assurance	66,000/-	18	
7	Sciences,	Pharmacognosy	66,000/-	18	
	I.R.C. Village, Bhubaneswar	Pharmaceutical Chemistry	66,000/- 18 66,000/- 18		
		Pharmaceutics (Drug Regulatory Affairs)	66,000/-	18	
c	Institute of Pharmacy &	Pharmaceutical Chemistry	66,000/-	12	
8	Technology, Salipur, Cuttack	Pharmaceutical Analysis and Quality Assurance	66,000/-	18	
		Pharma Technology	65,000/-	18	
	Jeypore College of	Pharmacognosy	65,000/-	10	
9	Pharmacy, Rondapalli,	Pharmacology	65,000/-	18	
	Jeypore, Koraput	Pharmaceutical Analysis and Quality Assurance	65,000/-	18	
		Pharmaceutics	66,000/-	18	
		Pharmacology	66,000/-	18	
40	Kanak Manjari Institute of	Pharmaceutical Biotechnology	66,000/-	18	
10	Pharmaceutical Sciences, Chhend Colony, Rourkela	Pharmaceutical Analysis And Quality 66,000/- Assurance	66,000/-	10	
		Pharmaceutical Chemistry	66,000/-	18	
		Pharmaceutics	66,000/-	18	
	Roland Institute of	Pharmaceutical Analysis And Quality Assurance	66,000/-	18	
11	Pharmaceutical Sciences,	Pharmacology	66,000/-	18	
	Khodasingi	Pharmaceutical Chemistry	66,000/-	18	
		Pharmacognosy and phytochemistry	66,000/-	18	
		Pharmaceutical Technology	66,000/-	18	
12	Royal College of Pharmacy & Health Science,	Pharmaceutical Analysis and Quality Assurance	66,000/-	18	
	Andhapasara Road	Pharmacology	66,000/-	18	
	pasara read	Hospital and Clinical Pharmacy	66,000/-	10	
		Pharmaceutics	66,000/-	18	
	Seemanta Institute of Pharmaceutical	Pharmaceutics	66,000/-	18	
13	Sciences, Jharpokharia, Mayurbhanj	Pharmaceutical Chemistry	66,000/-	18	

	Sri Jayadev	Pharmaceutics	53,000/-	18
	College of Pharmaceutical	Pharmaceutical Chemistry	53,000/-	10
14	Sciences,	Pharmacology	53,000/-	18
Balianta,	Naharkanta, Balianta, Khurda, Bhubaneswar	Pharmaceutical Analysis and Quality Assurance	53,000/-	18
	The	Pharmaceutics	53,000/-	18
15	Pharmaceutical College,	Pharmacognosy	53,000/-	10
	Samaleswari Vihar, Tingipali, Mohada, Barpali	Pharmacology	53,000/-	18

^{*} The tuition fee will be communicated before the counselling for admission through OJEE website and in the counselling brochure after due approval from Government.

Fixation of Optional Cost.

The optional cost and caution money for the Technical / Professional Institution in respect of various programmes is fixed as follows:

S.No.	Particulars	Optio	nal Fee and Caut	ion Money in	INR
1	Hostel Cost for all Courses	Hosto	(i) Rs. 18,000 per Year per Student (Own Hostel) (ii) Rs. 10,000 per Year per Student (Rented hostel)		
2	Transportation Cost		0 up to 20 Km an an that for the ful		or
3	Pre-Placement Training	Rs. 1 maxi (ii) MBA Rs 8,	(i) B.Tech/B.Arch/B.Pharm./HMCT/MARINE Rs. 10,000 for total course subject to maximum Rs. 2,500 per year (ii) MBA / MCA / M.Tech / M.Pharm. / PGDM Rs 8,000 for Total Course subject to maximum of Rs. 4,000 per year		
4	Uniform & Blazer	The cost of uniform provided by the College shall not exceed Rs. 1,500 and for Blazer and Uniform together provided by the College shall not exceed Rs. 4,000			
5	Caution Money	SI. No	Course	Amount	
		1	B. Tech	Rs. 2,000	
		2	M.Tech	Rs. 1,000	
		3	MBA	Rs. 1,000	
		4	MCA	Rs. 1,500	
		5	B.Pharm	Rs. 2,000	
		6	M.Pharm	Rs. 1,000	
		7	BDS	Rs. 1,000	
		8	MBBS	Rs. 2,500	
		9	Marine Engg.	Rs. 1,000	
		10	B.Arch	Rs. 1,000	
		11	PGDM	Rs. 2,000	
		12	НМСТ	Rs. 1,000	

INSTRUCTIONS FOR COMPLETING OJEE-2012 APPLICATION FORM.

Notes:

- (a) The applicant has to note down the six-digit application number for all future correspondence. Applicant has to read the instructions carefully before filling the application form. Please refer to the sample filled in application form provided on the last two pages.
- (b) The applicant has to write first in capital letters the required information in rectangular boxes above the circles (wherever provided) and should darken the appropriate circle underneath each letter. What the candidate writes in these boxes is only for his/her guidance and for verification that he/she should darken

- the appropriate circle correctly i.e., the candidate must ensure correct darkling of circle.
- (c) A machine will process the top portion of the application form. The machine picks up only dark marks. Therefore, darken the circles carefully using HB pencil or blue / black ball point pen only. Please see the illustration on the application form to learn how to darken the circles.
- (d) If the applicant wishes to change a marking, then he/she has to erase the darkened circle completely and then darken the appropriate circle. This is possible if the applicant uses pencil. Otherwise, he/she can use white correction fluid for covering wrongly darkened circle.
- (e) The applicant should not scribble, smudge, cut, tear, or wrinkle the application form. The applicant should not put any stray marks anywhere on the application form.
- (f) The applicant should not write or mark on the Barcodes.
- (g) Photograph, signature, e-mail id and corresponding address (Sl. No. 14,15,16,17 and 18 of OMR application) are to be scanned by another machine that recognizes only good quality images from the specified areas of the form. Therefore the applicant has to paste a good black and white photograph taken not more than two months earlier and write his/her address and sign in black/blue ball point pen only.
- (h) Please note that the applicant's name, parents / guardian's name, and date of birth should exactly be the same as in mentioned in the High school or his/her first Board / Pre-University examination certificate. Any deviation, whenever discovered, may lead to cancellation of the applicant's candidature.
- (i) The candidate's application form must be complete in all aspects. Incomplete application or application filled in a language other than English will be summarily rejected without any notice.
- (j) Options filled by the candidate in the application form cannot be changed at a later stage under any circumstances.
- (k) It is suggested that the candidate should make a photocopy of the application form (OMR) before filling in. This photocopy of the application OMR may be used for practice to avoid errors/mistake while filling in the original application OMR.

6.1 Name of the Candidate: (Item - 1)

1. NAME OF THE CANDIDATE (EXACTLY AS IN YOUR 10th CLASS CERTIFICATE)

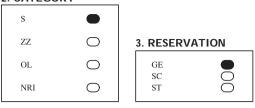
The applicant has to write his/her name in **CAPITAL LETTERS** as mentioned in his/her original certificate of the 10th class or equivalent examination in **HB pencil** or **Black/Blue ball point pen.** He/she has to write a single letter in each box. Within any one word of the applicant name, he/she should not leave any blank box. The candidate should leave one and only one blank box between any two words of the name. If his/her name has several initials leave one blank after each of them. If it requires more than 35 boxes abbreviate the middle name(s). The candidate should darken the appropriate circle under each letter of the name.

SUMIT DAS	
$ $ \triangle	
8888888888888888888888888	
$ \circ \circ$	
ullet	
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&	@@@@@@@@@@@
$ W W \otimes W W W W W W W W W W W W W W W W $	
-1	
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	
QQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ	
■SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	
\@@@@@@@@@@@@@@@@@@@@@@@@@@	@@@@@@@@@@@@
$ \hspace{.1cm} \overline{\otimes} \overline{\otimes} \overline{\otimes} \overline{\otimes} \overline{\otimes} \overline{\otimes} \overline{\otimes} \otimes$	$\otimes \otimes $
\mid $OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO$	
	@@@@@@@@@@@

6.2 Category: (Item - 2)

Refer Clause No. 2 of this brochure for ascertaining the category to which the candidate belongs. (S-Odisha State, NRI-Non-Resident Indians, ZZ-Outside State, OL- [Oriyas (Odias) belonging to outlying Oriya (Odia) speaking tracts]

2. CATEGORY



6.3 Reservation: (Item - 3)

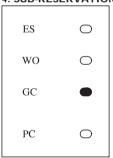
Category	Code
General	GE
Scheduled Caste	SC
Scheduled Tribe	ST

6.4 Sub Reservation: (Item - 4)

Sub Reservation	Code
Ex-Servicemen	ES
Women	WO
Children of Green Card Holder	GC
Physically Challenged	PC

Candidates belonging to S-Category (eligible to claim reservation as per Clause 2.1) and seeking admission under reservation in any of the following sub reservation category are required to darken the appropriate circles (multiple choices may be given if applicable).

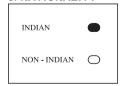
4. SUB-RESERVATION

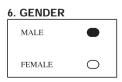


6.5 Nationality: (Item - 5)

The candidate should darken the appropriate circle.

5. NATIONALITY





6.6. Gender: (Item - 6)

The candidate should darken the appropriate circle.

6.7. Course: (Item - 7) [Do not fill multiple codes in this item]

The candidate should enter the two digit appropriate code in the boxes provided at the top and darken the corresponding circles below them against the course code [(given in 6.7.1 for Engineering, Architecture, Medical & Pharmacy), (given in 6.7.2 for MCA, MBA, PGDM, PGCM, PGDM (Executive), (given in 6.7.3 for Lateral Entry in a particular discipline or possible combinations)] that he/she wants to appear. Candidates are required to opt for only one course code.

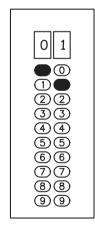
For example if the candidate is appearing for Engineering only he/she should darken the circle 01. If the candidate is appearing for both Engineering and Medical, he/she should darken circle 05. Examination time table will not permit other combinations of courses.

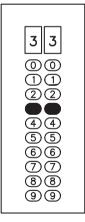
6.7.1 For Admission to First Year Bachelor Programme: Code (01 to 12)

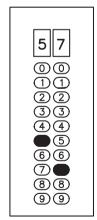
Qualifying Exam.	Course	Course Code
	Engineering only	01
	Medical only	02
	Pharmacy only	03
	Architecture only	04
	Engineering and Medical	05
10+2	Engineering and Pharmacy	06
	Engineering and Architecture	07
	Medical and Pharmacy	08
	Architecture and Pharmacy	09
	Engineering and Medical and Pharmacy	10
	Engineering, Pharmacy and Architecture	11
	Engineering, Medical, Pharmacy and Architecture	12

7. COURSE CODE [for admission to First year Programme (01 to 12)]

7. COURSE CODE [for admission to First year MBA/MCA/PGDM /PGCM/PGDM (Exe) Programme (31 to 33)] 7. COURSE CODE
[for admission
Second Year
Bachelor Programme
(Under Lateral Entry)
(51 to 75)]







6.7.2. For Admission to First year MBA /MCA /PGDM/ PGCM/ PGDM (Executive) Programme: Code (31,32&33)

Bachelor	Entrance Test for MBA, PGDM, PGCM and PGDM(Executive).	31
Degree	MCA	32
	Entrance Test for MBA, PGDM, PGCM and PGDM(Executive) and MCA	33

6.7.3 For Admission to Second Year Programme (Under Lateral Entry): Code (51 to 75)

Qualifying Examination	Course	Course Code
	Applied Electronics & Instrumentation	51
	Architecture Asstt.	52
	Automobile Engineering	53
	BioTechnology	54
	Ceramic Engineering	55
	Chemical Engineering	56
	Civil Engineering / Rural Technology	57
	Computer Application & Programming /Computer Science and Engineering/ Information Technology	58
	Drilling	59
	Electrical Engineering	60
Diploma	Electronics and Telecommunication Engineering	61
	Food Technology / Food Processing	62
	Garment Design and Fashion Technology	63
	Mechanical Engg. / Tool and Die Making	64
	Metallurgical Engineering	65
	Mining Engineering	67
	Plastic Mould Engineering	68
	Print Technology	69
	Textile Engineering	70
	Mechatronics	71
	Sound Engineering	72
	Others	73
	Pharmacy	74
B.Sc. / +3 Sc. (Mathematics as a subject in +2 Sc)	Engineering (Lateral Entry)	75

6.7.4 For Admission to First Year M.Tech / M.Pharm / M.Arch Refer to OJEE-2012 website (Candidate applying for M.Tech / M.Pharm / M. Arch has to fill-up on-line application form at OJEE-2012 website www.odishajee.com)

6.8. Mother Tongue: (Item - 8)

Assamese	01	Odia	10
Bengali	02	Punjabi	11
English	03	Sanskrit	12
Gujarati	04	Sindhi	13
Hindi	05	Tamil	14
Kannada	06	Telugu	15
Kashmiri	07	Urdu	16
Malayalam	08	Others	17
Marathi	09		

8. MOTHER TONGUE (If it is Odia)



9. DATE OF BIRTH

7. DATE OF BIRTH								
	MON	TH						
DATE	JA	N	YEAR					
2 3	JAN							
	FEB	$\overline{}$	90					
00	MAR	ŏ	0					
(1) (1)	APR	Ō	<u>Ū</u> Ū					
2	MAY	\bigcirc	22					
3	JUN	Ö	33					
4	JUL	\odot	44					
5	AUG	\simeq	55					
6 7	SEP OCT	\sim	66					
	NOV	\simeq	88					
	DEC	\sim						

6.9 Date of Birth: (Item - 9)

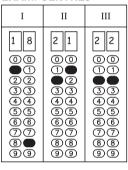
The candidate should enter the date, month and year of his/her birth (Last two digit) as per the English calendar and as recorded in his/her School/Board/Pre-University examination certificate. The candidate should use numerals 01 to 31 for DATE, abbreviations JAN, FEB etc. for MONTH, and the last two digits of the YEAR of birth. For example, if born on 23rd JANUARY 1990 the date should be entered as follows: 23 JAN 90. The candidate should darken the appropriate circle in each column.

6.10 Place of Examination Centres: (Item - 10)

Table — XI gives a list of the numerical codes of the places where probable centers for the OJEE-2012 will be located. The candidate should select three different places in order of his/her preference. The candidate should enter the appropriate codes in the boxes provided at the top and darken the corresponding circles below them. The first preference must be entered under column-I and the second and the third preferences under column-II & III respectively.

An OJEE-2012 centre may be cancelled owing to poor response, operational difficulties or any other reason. Candidates may not necessarily be allotted a particular place as OJEE-2012 centre from their filled in choices.

10. CHOICE OF PLACE OF EXAM. CENTRES



11. YEAR OF PASSING/ APPEARING IN QUALIFYING EXAM.

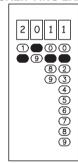


TABLE- XI

List of OJEE-2012 Centres with Centre Code										
Place of Centre	Code	Place of Centre	Code							
Angul	11	Jeypore	28							
Balasore	12	Jharsuguda	29							
Bargarh	13	Keonjhar	30							
Baripada	14	Koraput	31							
Bhawanipatna	15	Malkangiri	32							
Berhampur	16	Nabarangapur	33							
Bhadrak	17	Nayagarh	34							
Bhubaneswar	18	Nuapada	35							
Bolangir	19	Paralakhemudi	36							
Boudh	20	Phulbani	37							
Burla	21	Puri	38							
Cuttack	22	Rayagada	39							
Chatrapur	natrapur 23 Rourkela		40							
Deogarh 24		Sambalpur	41							
Dhenkanal	25	Sarang	42							

-UÙ-

Jagatsinghpur	26	Subarnapur	43
Jajpur	27	Sundergarh	44

Outside the State

Ahmadabad	51	Mumbai	59	
Bangalore	52	New Delhi	60	
Chennai	53	Raipur	61	
Guwahati	54	Patna	62	
Hyderabad	55	Ranchi	63 64	
Jamshedpur	56	Surat		
Kharagpur	57	Vizog	65	
Kolkata	58	Vizag	00	

6.11. Year of (Pass/Appearing) Qualifying Examination:

(Item - 11) (For Engineering / Medical / Pharmacy / Architecture)

- Those who have already passed 10+2 or an equivalent qualifying examination should indicate the year of passing and darken the appropriate circles.
- (ii) MCA/MBA/PGDM/PGCM/PGDM (Executive) / M. Tech /M. Pharma: Those who have already passed Bachelors Degree or an equivalent qualifying examination should indicate the year of passing and darken the appropriate circle. For M.Tech / M. Pharm the applicant is advised to fill-in the application form online at www.odishajee.com.
- (iii) Lateral Entry: Those who have already passed Diploma or B.Sc. or +3 Sc. examination should indicate the year of passing and darken the appropriate circle.
- (iv) Those who are appearing for their qualifying examination in 2012 should darken the circles corresponding to 2012.

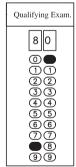
6.12 Name of the qualifying Examination: (Item – 12)

- (i) +2/Equivalent
- (ii) Diploma/Equivalent
- (iii) +3 Science/Degree/Equivalent

12. NAME OF THE QUALIFYING EXAM.



13. PERCENTAGE OF MARKS IN



6.13 Percentage of Marks in Qualifying Examination: (Item – 13)

The candidate has to fill in the actual percentage of aggregate marks obtained in the qualifying examination in SI. No. 13 of OMR if the results are available. Otherwise he/she has to leave SI. No. 13 of OMR blank. The candidate has to enter only integer part of the percentage of marks and ignore the decimal point. For example 76.15, 76.56 or 76.90 should be taken as

76 only. Appropriate circles against each entry should be darkened.

6.14 Left Hand Thumb Impression: (Item -14)

The candidate should put his/her Left Hand Thumb Impression in the specified box.

6.15 Photograph: (Item - 15)

The candidate should paste (do not staple) a recent good quality black and white passport size photograph taken not more than two months earlier. It is expected that the candidate will have the same appearance at the time of examination and counselling as in the pasted photograph. In case the appearance changes from the pasted photograph, the candidate is required to bring two new photographs at the time of examination. The photograph neither be signed nor be attested

NOTE: Photograph should not be larger than the space provided in the box for pasting it. The candidate should keep four more copies of the same photograph, to be required at the time of counselling.

6.16 Complete Mailing Address: (Item - 16)

The candidate should write the complete postal address to which any communication is to be sent. The address must include his/her name, C/o name if required, and other details including the PINCODE for the mail to reach his/her desired postal address. The candidate has to indicate phone number, if any, with STD code and Mobile number for future communication. Please note that this block will be scanned by a machine and therefore, it should be written very clearly in black / blue ball point pen only (not in pencil). If the candidate makes any mistake, he/she should cover the whole box with an exact sized white paper slip and write his/her address on the pasted white paper. The candidate may also paste a typed address slip inside the box and the address must not overflow this box.

6.17 Signature(Black/Blue ball point pen only): (Item – 17)

The candidate should put his/her full signature in **black / blue ball point pen** within the box provided. The candidate's signature must not overflow or touch the border of the box provided. Your signature establishes your identity. **Hence, do not merely write your name in capital letters. This may lead to rejection of your application.**

6.18 E-mail: (Item – 18)

OTHERS

The candidate must give his/her e-mail address.

5	3 (ır	n	i	t	d	а	s	@	q	m	а	i	1	С	0	m			
1 -		. 1 .						_	_						 _	-		l .	l .	 l .

6.19 Board of Qualifying Examination: (Item – 19)

The candidate should darken the appropriate circle.

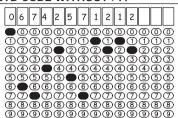
6.20 PINCODE of Address for Communication: (Item - 20)

The candidate should write PINCODE in the space provided. The candidate should darken the appropriate circle against each digit.

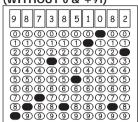
6.21 Phone Number including STD Code : (Item – 21) (Without +91)

The candidate should write his/her phone number in the top of the box provided, if there is any, with STD code, on which he/she can be contacted. The candidate should darken the appropriate circles below the said box.

21. PHONE NUMBER INCLUDING STD CODE WITHOUT+91



22. MOBILE NUMBER (WITHOUT 0 & +91)



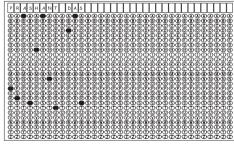
6.22 Mobile phone Number: (Item – 22) (Without 0 & +91)

The candidate should write his/her mobile number in the top of the box provided, if there is any, on which he/she can be contacted or a message can be sent to him/her. The candidate should darken the appropriate circles below the said box.

6.23 Name of Parent / Guardian (one of them): (Item - 23)

The candidate should write one of the name of his/her parent or guardian exactly as in his/her 10^{th} class or equivalent certificate. If no name is given in the 10^{th} certificate, the candidate should write the name of his/her father and has to produce the documentary proof at the time of document verification. The candidate should write a single letter in a box. Within any single word of the name, he/she should not leave any blank box. He/she has to leave one and only one blank box between any two words of the name. The candidate should darken the appropriate circle under each letter of the name. If the name has several initials, he/she should leave one blank after each of them.

23. NAME OF THE PARENT / GUARDIAN AS PER YOUR 10TH CLASS CERTIFICATE



24. RELATIONSHIP



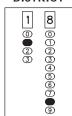
6.24 Relationship: (Item - 24)

Indicate your relationship with the parent/ guardian in item 24 by darkening the appropriate circle.

6.25 Candidate's Residence District (Item - 25)

Candidates belonging to S-category (Odisha State candidates as per Clause no. 2.1) should mention the code against the name of the district to which he/she belongs (native district), refer Table–XII. The applicants S.Category who belong to districts other than the districts mentioned in the Table XII may ignore the item - 25 in the application form (OMR). They should not mark anything in item - 25 in the application OMR sheet.

25. RESIDENCE DISTRICT



26. PARENT'S / GUARDIAN TOTAL ANNUAL INCOME

Below Rs. 50,000/-	\circ
Rs. 50,000 - Rs. 1,50,000	
Rs. 1,50,001 - Rs. 2,50,000	\circ
Rs. 2,50,001 - Rs. 3,50,000	\circ
Rs. 3,50,001 - Rs. 4,49,999	\circ
Rs. 4,50,000/- and above	\circ

TABLE- XII Residence District

District's Name	Code	District's Name	Code
Angul	01	Kandhamal	16
Balasore	02	Kendrapara	17
Bargarh	03	Keonjhar	18
Bhadrak	04	Khurda	19
Bolangir	05	Koraput	20
Boudh	06	Malkanagiri	21
Cuttack	07	Mayurbhanj	22
Deogarh	08	Nabarangpur	23
Dhenkanal	09	Nayagarh	24
Gajapati	10	Nuapada	25
Ganjam	11	Puri	26
Jagatsingpur	12	Raygada	27
Jajpur	13	Sambalpur	28
Jharsuguda	14	Sonepur	29
Kalahandi	15	Sundergarh	30

6.26. Parent's / Guardian's Total Annual Income: (Item-26)

The candidate should darken the appropriate circle, of annual income of his/her parent/guardian from all sources of income.

6.27. Parents' Educational Background: (Item27)

The candidate should darken the appropriate circle.

6.28. Place of Residence: (Item - 28)

The candidate should darken the appropriate circle.

27. PARENT'S EDUCATIONAL BACKGROUND



28. PLACE OF RESIDENCE



6.29. Declaration by the Candidate: (Item - 29)

The candidate must sign the declaration in **black / blue ball point pen.** The place and date should also be entered. Two signatures; the one below the declaration and the other in the box below the photograph, should be identical. Applications without signatures or with different signatures at the two places will be treated as incomplete and will summarily be rejected. The declaration by the candidate must be counter signed by Parent/ Guardian. The candidate should write the name of Parent/Guardian in the space provided.

6.30. Enclosures with Application Form:

The candidate has to enclose the Acknowledgement Card duly filled in. Those who will submit the application in the notified Bank/Post Office should collect the Acknowledgement Card duly signed and stamped by the authorized person of the concerned Bank/Post Office. Any copies of certificates/ mark sheets / appendices **SHOULD NOT** be enclosed with the application form.

TABLE-XIII

Mapping course-wise for Lateral Entry (Engg) admission

COLUMN-I	COLUMN-II					
If the candidate has a	He/she is eligible to be admitted to:					
Diploma in Engineering in the discipline:						
Civil Engg./Rural Technology	Civil Engineering /Environmental Engg / Biomedical Engg.					
Mechanical Engg. / Tool & Die Making	Mechanical Engg./Manufacturing Sc. and Engineering / Bio-Medical Engg./ Production Engg.					
Automobile Engineering	Mechanical Engg./ Automobile Engg./ Bio-Medical Engg./Production Engg.					
Electrical Engineering.	Electrical Engg./ Electrical & Electronics Engg / Bio-Medical Engg.					
Electronics & Telecommunication Engg./ Applied Electronics & Instrumentation.	Applied Electronics and Instrumentation/ Instrumentation and Electronics Engg. / Electronics and Communication Engg. / Electronics & Instrumentation Engineering / Electronics & Tele Communication Engineering/Bio-Medical Engg./Elec. & Comm Engg. (Ind. Integrated)					
Metallurgical Engineering / Ceramic Enginnering	Metallurgical Engineering / Mineral Engg. /Bio-Medical Engg.					
Mining Engineering	Mining Engineering / Bio-Medical Engg.					
Chemical Engineering	Chemical Engineering / Environmental Engg. / Biotechnology / Bio-Medical Engg.					
Food Technology / Food Processing.	Chemical Engineering / Biotechnology / Bio-Medical Engg.					
Textile Technology	Textile Technology / Bio -medical Engg.					
Computer Science & Engg. / Computer Application Programming / Information Technology	Computer Science & Engineering / Computer Science / Computer Engineering / Information Technology / Bio-Medical Engg.					
Drilling Technology.	Mining or mechanical Engineering / Biomedical Engg.					
Mechatronics	Mechanical / Bio-medical Engg / Applied Electronics and Instrumentation/ Instrumentation and Electronics Engg. / Electronics and Communication Engg. / Electronics and Telecommunication Engg./ Electronics & Instrumentation Engineering./Elec. & Comm Engg. (Ind. Integrated)					
Biotechnology	Biotechnology / Bio-Medical Engg.					
Print Technology	Mechanical / Fashion Technology / Textile Technology / Bio-medical Engg. /Production Engg.					
Plastic Mould Engineering	Plastics Engineering / Bio-medical Engg.					
Garment Design & Fashion Technology	Fashion Technology / Textile Technology / Bio-medical Engg.					
Sound Engineering	Bio-medical Engg / Applied Electronics and Instrumentation/ Instrumentation and Electronics Engg. / Electronics and Communication Engg. / Electronics and Telecommunication Engg./ Electronics & Instrumentation Engineering./ Elec. & Comm Engg. (Ind. Integrated)					
Architectural Assistantship & Town Planning	Architecture (As per AICTE norm)					
· iaiiiiig						

ADMIT CARDS:

Admit Cards will be despatched around 30 days before the date of examination. If an applicant does not receive the Admit Card for the examination by April 25, 2012, or lose his/her admit card, the candidate may down load two copies of the duplicate admit card from the OJEE – 2012 website which must be endorsed by the centre Superintendent of the examination centre for allowing the candidate to appear the exam. A passport photograph identical to the one submitted during application must be pasted on each copy of the downloaded duplicate admit card. One copy of the duplicate admit card must be submitted at the examination hall and other should be retained by the candidate. However the submitted admit card may be examined at a later stage to validate the authenticity. No complaints will be entertained for non receipt of admit cards after Odisha Joint Entrance Examination - 2012 is over.

7. Rules for Entrance Examination:

- The joint Entrance Examination will be held as per the Scheduled date and time mentioned.
- ii) The medium of examination is English.
- iii) The examination hall shall be opened to the candidates half an hour before the examination commences. No candidates will be allowed to enter in the examination hall without a valid original or down loaded admit card duly endrosed by the center superintendent.
- iv) Candidates are required to take their respective seats at least 15 minutes before the commencement of the examination, strictly according to the sitting chart notified earlier by the Centre Superintendent.
- v) In no case a candidate is allowed to enter the examination hall after the examination starts.
- vi) Attendance will be taken by the invigilators on the attendance sheets in which the candidates shall have to put their full signature against their corresponding roll numbers. During Examination the candidates have to enter their Application Number, answer sheet number, and question series number against their roll number in the roll sheet provided.
- vii) No candidate will be allowed to leave the hall without surrendering his/her question booklet and answer sheet until the examination is over. Ordinarily no candidate shall be allowed to leave the hall temporarily during the examination.
- viii) Candidates suffering from any disease and their subsequent presence in the examination, if, is undesirable in the interest of other candidates, then he/she will not ordinarily be allowed to enter the examination hall. Also the candidates are not allowed to have a substitute writer.
- ix) Candidates should bring their own black /blue ball point pen, HB pencils and eraser for writing and blackening the circles. Books, printed papers (other than their Admit Cards), Manuscripts or electronic gadgets such as mobile phones, cell phones and electronic diary, calculators etc, must not be taken into the examination hall. In case these prohibited materials are found the candidate will be debarred from appearing the examination and asked to leave the Hall.
- x) The candidates are advised to inspect the question booklet and answer sheet about its completeness before attempting to answer. In case page/ pages are found missing, torn or not in order, the candidates should immediately report to the invigilator and get a fresh question answer book issued after surrendering the defective one.
- candidates are not permitted to talk to each other in the examination hall. No one should receive any help from or assist another in any manner. Malpractice of any form

detected during or after the examination would entail not only cancellation of candidature but also more severe punishment as deemed fit by the OJEE committee.

- xii) A candidate should write his/her roll number as assigned in his/her admit card and sign in the place provided in the question booklet and answer sheet. He/ she should on no account write anywhere in the answer sheet his/her own name, roll number or anything else that is not strictly connected with the answers to the question given. Writing of any such thing or false roll number is a serious offence. The answer sheet without the candidate's roll number clearly written in space provided will not be examined.
- xiii) A candidate wishing to say any thing should standup in his/her seat and remain standing until the invigilator attends to him/her. He/she should on no account leave the seat or make any noise to draw the invigilator's attention.
- xiv) The Centre Superintendent is empowered to take necessary decisions on any other matters which are not provided in these rules.

7.1 Examination Procedure / Valuation methodology:

There will be multiple choice type questions. The number of questions will be sixty (60) per each hour of examination. Each question shall have four answers (including one or more correct answer(s)) and the examinee shall have to blacken only the appropriate circle (which he/she considers most correct) in HB pencil or black / blue ball point. Each correct answer shall fetch four marks whereas each incorrect answer will lead to deduction of one mark. Each unattempted question will fetch zero. If more than one circles are darkened for one question, it will be treated as an incorrect answer and one mark will be deducted.

The Answer Sheet consists of two pages, the top one is the Original answer sheet whereas the annexed one is the carbon copy. The part – A of the original sheet contains the details such as Roll No., Question Booklet number, Name and signature of the candidate, Name of the centre, Signature of the Invigilator.

The Part – B of the answer sheet is meant for recording the answers by darkening the appropriate circle(s) by the candidate.

Whatever written/marked impression is made on the main sheet, the second sheet will reproduce the same.

This will be detached **by the invigilator** and returned to the candidates at the end of the examination.

7.2 Issue of Marks

Candidates desirous of knowing subject-wise marks secured by them should make a written request enclosing a demand draft of Rs. 200/- (Rupees two hundred only) in favour of "OJEE-2012" drawn on any Nationalised Bank at Bhubaneswar, so as to reach the OJEE office within 10 days of the publication of result.

7.3 Re-totalling and Review:

The OJEE answer sheets are all machine evaluated with adequate care taken to make them error free. Based on the evaluation a merit list is prepaired. There is no award of class. Mark sheets are not issued in general. A candidate, may however request for retotalling / readdition with a fee of Rs.500/- (Rupees five hundred only) in the shape of demand draft in favour of OJEE-2012 drawn on any nationalised bank at Bhubaneswar so as to reach the OJEE office within seven calendar days of the publication of OJEE – 2012 result. Re evaluation of answer script is not permissible. No question papers can be made available, since they are strictly confidential. A committee will manually verify the results and its decision will be final and binding on the applicant. No photocopy of the answer sheet will be made available to the candidate.

7.4 Wrong/Correct ways of Marking:

Wrong & Correct Methods of showing your answer

Wrong method	0	\boxtimes	0	0
Wrong method	\bigcirc	\bigcirc	\otimes	\bigcirc
Wrong method	\circ	\bigstar	\circ	\bigcirc
Wrong method	\circ	\circ		\bigcirc
Wrong method		\circ		\circ
Correct method		\circ	\circ	\bigcirc
Correct method	\circ		\circ	\bigcirc
Correct method	\circ	\circ		\circ
Correct method	\bigcirc	\circ	\bigcirc	

Each question is followed by answers which have numbers A B C and D. Select the most appropriate answer. Then by using HB pencil or black/blue ball point pen darken the circle bearing the correct answer in the answer sheet against the corresponding number of the question. The wrong & correct method of answering is illustrated above.

7.5 Sample Questions

- 1. If we dip capillary tubes of different radii r in water and water rises to different height h in them, then.
 - (A) h/2 = constant
- (B) h/r = constant
- (C) hr = constant
- (D) $hr^2 = constant$
- 2. The drug taxol is obtained from the bark of
 - A) Pacific Yew
- (B) Eucalyptus
- (C) Cinnamon
- (D) Cinchona
- The number of different types of F-S-F bond angles in SF4 are
 - (A) two
- (B) one
- (C) three
- (D) four
- 4. The integral $\int_{1}^{2} (1-x) dx$ equals:
 - (A) 1
- (B) 0
- (C) 3
- (D) 2

8 SYLLABI

8.1 (ENGG/MBBS/BDS/ARCHITECTURE/PHARMACY)

The Syllabi given hereunder for OJEE-2012 are only illustrative and not exhaustive. The syllabi are in line with courses of studies in Science stream for the Higher Secondary Examination 2012 of CHSE, ODISHA. Since OJEE is conducted with a view to preparing merit lists for admission the decision of the OJEE Committee as regards the scope of the syllabus is FINAL.

8.1.1 PHYSICS

Measurements and Motion: Fundamental and derived physical quantities, Concept of Mass, Length and Time, Measurement of different quantities in SI Units. Errors in measurement, Combination of errors, Dimension of physical quantities, Dimension analysis of physical quantities-Conversion of physical quantities from one system of units to another. Concepts of vectors and scalars, Components of vectors, Unit vectors, Addition, Subtraction and Multiplication (vector & scalar) of vectors. Lami's Theorem. Equations of

linear motion for uniformly accelerated bodies (by calculus method). Newton's laws of motion, Conservation of energy and momentum, Collision in one dimension, Work, Power, Energy, Sliding and Rolling friction. Circular Motion- radial and tangential acceleration, Centripetal force, Banking of tracks, Kepler's laws of Planetary Motion (Statements only). Newton's law of Gravitation. Earth satellites- Orbital and Escape velocities. Moment of Inertia-definition and expression of Moment of Inertia for rod, ring and circular disc (about an axis passing through the centre and perpendicular to the plane of the body). Angular momentum and Conservation of angular momentum, Projectile motion.

Heat & Thermodynamics: Concept of Temperature, Scales of Temperature (Celsius, Fahrenheit, Kelvin), Definition of mechanical equivalent of heat (J), Thermal energy, Heat Capacity, Specific heat of solids and liquids, Latent heat, Heat transfer-Thermal conductivity of solids, Steady state, Kirchhoff's laws of heat radiation, Stefan's law of heat radiation, Newton's Law of cooling.

Kinetic Theory of gases- Pressure of an ideal gas, Kinetic interpretation of temperature, Degrees of freedom, Law of equipartition of energy.

First Law of Thermodynamics, Specific heats of a gaseous system, Relation between Cp and Cv, Work done during Isothermal and Adiabatic processes, Carnot's conceptual heat engine and its efficiency, Second law of thermodynamics, Absolute Scale of Temperature.

Characteristics of Materials: Elastic and Plastic behaviors of solids, Elastic limit, Young's modulus, Shear and Bulk modulus, Poission's ratio.

Liquids: Surface Tension and Surface Energy, Excess pressure across a spherical liquid surface, Expression for capillary rise. Streamlined and turbulent flow, Bernoulli's equation and its application, Viscosity- coefficient of viscosity, Stokes law

Electricity & Magnetism: Electric field intensity and Potential at a point in an electric field, Relation between them, Capacitance- dielectric constant and its effect on capacitance. Series and parallel grouping of capacitances, Energy stored in a charged capacitor, Ohm's law, Variation of resistance of metallic conductors with temperature, Kirchhoff's laws and its application to a balanced Wheatstone bridge. Combination of Cells and resistors- series and parallel. Heating effect of electric current and Joule's law, Electric power and electric energy.

Magnetic Permeability and Susceptibility of materials, Properties of dia, para and ferro magnetic materials.

Biot–Savart's law- Magnetic Field due to a circular coil at its centre. Moving coil galvanometer (dead beat only). Force on a moving charge in a uniform magnetic field. Faraday's laws of electromagnetic induction, Lenz's law, emf induced in a rotating coil in a magnetic field. Alternating current- Self and Mutual induction, Phase relation between Voltage and Current in pure resistive, capacitive and inductive circuits. Principle of transformer, elementary idea on electromagnetic waves.

Wave motion: Simple harmonic motion, wave propagation, characteristics of wave motion, longitudinal and transverse waves, superposition of waves:- Stationary waves, Beats. Open and closed organ pipes, velocity of sound in air- effect of pressure, temperature and humidity on it. Doppler Effect, laws of transverse vibration of string (Statement only).

Optics: Reflection and refraction at curved surfaces. Spherical mirror and thin lens formula and refraction through prism. Total internal reflection, Dispersion, Huygens principle (statement only), Young's double slit experiment.

Electronic Devices: Thermionic emission, Statement of Richardson's equation and Child's Law, Vacuum triode-

construction and characteristics, relationship between valve constants, Descriptive idea of energy bands:- conductors, insulators and semi conductors, intrinsic and extrinsic semiconductors, p-type and n-type semiconductors. PN junction, PNP and NPN transistor, PN Junction as a rectifier.

Relativity and Nuclear Physics: Postulates of special theory of relativity, variation of mass with velocity (Statement only), mass energy equivalence relation (Statement only). Atomic nucleus, nuclear forces, nuclear mass, binding energy, mass defect, artificial radio activity, radio isotopes and their uses. Nuclear fission, energy released during nuclear fission, chain reaction, controlled chain reaction, nuclear fusion, energy generation in the Sun, radiation hazards.

8.1.2 CHEMISTRY

General behaviour of matter:

Solid State: Characteristics, Classification, Solubility, Melting points, Crystal structure of simple ionic compounds. Radius ratio and coordination number: density calculation, lattice points and voids.

Liquid State: Characteristics, Boiling and Freezing points, Viscosity, Surface tension, Osmosis, Raoult's law, Lowering of vapour pressure, Depression of freezing points, Elevation of boiling points, Anomalous molecular masses; Association and dissociation

Solutions: Types of solutions, concentration and different ways of expressing concentration (percentage, ppm, strength, normality, molarity, molality and formality); Interrelations

Gaseous State: Gas laws, Kinetic model of gases, ideal gas equation, Van der waals' equation, compressibility factor, Average, root mean square and most probable velocities.

Atoms and molecules: Symbols, Valency, Atomic mass, Molecular mass, Avogadro's law, Mole concept, Determination of equivalent mass of zinc and copper, Atomic mass by Dulong Petit's method and Molecular mass by Victor Mayor's method. Stoichiometry and calculations based on stoichiometry.

Structure of atoms and molecules: Fundamentals particles and their properties, Rutherford and Bohr models of atom, Hydrogen spectrum, Energy levels, Shells and Sub-shells, s, p and d orbitals, Quantum numbers, Pauli's exclusion principle, Aufbau-principle, Hund's rule, Electronic configuration of atoms. Extra stability of half filled and filled subshells.

Chemical bonds: Ionic, Covalent, Coordinate and Hydrogen bond, Hybridisation- sp, sp³, sp³, dsp²,dsp³, d²sp³ shapes of molecules, VSEPR theory, Molecular Orbital Theory of simple diatomic molecules.

Periodic classification : Periodic table and periodic laws, s, p, d and f block elements, Periodicity in properties such as atomic and ionic radii, ionization enthalpy, electron gain enthalpy, electronegativity and oxidation states.

Chemical energetics, equilibrium and kinetics:

Energetics: Internal energy, Enthalpy, Heats of reactions, Bond energy, Hess's law, Idea on enthalpy, entropy and free energy, spontaneity and conditions of equilibrium.

Equilibria : Reversible reaction, Law of mass action, Equilibrium constant Kp, Kc, Kx and their relation. Its application to ammonia synthesis and dissociation of HI, Decomposition and thermal dissociation. Theory of acids and bases, Dissociation of weak acids and bases, Ostwald's dilution law, Ionic product of water, Common ion effect, Solubility product and their applications, pH, Hydrolysis of salts, Buffer solutions.

Kinetics: Rate of reaction, Factors affecting the rate, Rate constant, Order and Molecularity of a reaction, Simple zero and First order reaction, Half life period, Arrehnious equation

and Activation Energy, Collision theory (qualitative idea only)

Types of chemical reaction : Neutralisation and oxidation–Reduction reaction, Equivalent mass, Oxidation number, Balancing chemical reactions, by Ion electron method, Reactions involving KMnO₄, K₂Cr₂O₇, Na₂S₂O₃, oxalate etc.

Non-metals: Group study, Preparation, Properties and uses of elements of compounds of hydrogen (ortho and para hydrogen, isotopes of hydrogen, D₂O and H₂O₂). Allotropes of carbon, Nitrogen family (NH₃ and HNO₃). Oxygen and sulphur family (O₂, H₂S, SO₂, H₂SO₄ and its manufacture by contact process), Halogens, Hydrogen halides and Interhalogen compounds. Zero group elements (properties & uses).

Electrochemistry: Electrolysis, Electrical Conductivity (Specific, Equivalent and molar), Faraday's laws, Kohlvauseh law, Galvanic cell, Cell reaction, Nernst equation, Standard electrode potential, Electro chemical series e.m.f. of simple cells. Fuel cells.

Nuclear chemistry: Radio activity, Rate of disintegration, Group displacement law, Half-life and average life period, Stability of nuclear (N/P ratio) Carbon dating, Nuclear Fission and Fusion. Induced radioactivity by protons, neutrons and alpha particles.

Metals and metallurgy: Occurrence of metal, Minerals and ores, flux, slag calcination, roasting, smelting (by reduction of oxides) and refining. General trends in the characteristics, principles of extraction of Na, Mg, Ca, Al, Cu and Fe and their oxides, hydroxides, chlorides, nitrates and sulfates.

Organic chemistry:

Introductory: Functional Groups and organic radicals, Nomenclature by IUPAC system (substitutive method), Isomerism (Structural and stereoisomenism – optical and geometrical) EZ & RS nomenclature, Electron mobility – Inductive effect, Resonance, Electromeric effect and Hyperconjugation; their applications. Types of organic reactions – addition, substitution, elimination reactions. Idea of electrophiles and nuclephiles; Reaction intermediates – idea of carbocations, carbanion & free radicals; their stabilities.

Aliphatic compounds: Methods of preparation and properties of alkanes, alkenes, alkynes (acidity of terminal alkynes), haloalkanes, alcohols, aldehydes, ketones, carboxylic acids, acid derivatives (acid chlorides, esters and amides), nitroalkanes and amines.

Aromatic compounds: Aromaticity (Huckel's rule), Aromatic hydrocarbon (Preparation and reactions — Substitution, addition, ozonolysis). Phenols (Preparation and reactions): Aldehydes (Preparations and reactions); Acids (Preparation and reactions); Diazonium salts (synthetic application).

Biochemistry: Biological importance of organic compounds such as carbohydrates, amino acids, proteins, lipids and nucleic acids (only by metabolic process).

Chemistry in the service of mankind: General idea on fertilizers, pesticides, polymers (nylon, terylene, neoprene, buna-S, PVC, Teflon & bakelite). Medicine-analgesic, antipyretic, antibiotic and antiseptic (structure and preparation not required).

Environmental chemistry: Source, effect and control measures of air and water pollution.

8.1.3 MATHEMATICS

Logic : Statement, Negation, Implication, Converse, Contraposititve, Conjuction, Disjunction, Truth Table. Different methods of proof, Principle of Mathematical induction.

Algebra of sets: Set operation, Union, Intersection, Difference, Symmetric difference, Complement, Venn diagram, Cartesian product of sets, Relation and functions,

Equivalence relation, Kinds of functions and their domain and range, Composite function, Inverse of a function.

Number system: Real numbers (algebraic and order properties, rational and irrational numbers), Absolute value, Triangle inequality, AM GM, Inequalities(simple cases), Complex numbers, Algebra of complex numbers, Conjugate and square root of a complex number, Cube roots of unity, De Moivre's theorem with simple application. Permutations and Combinations -simple applications, Binomial theorem for positive integral index, Identities involving binomial coefficients

Determinants and matrices: Determinants of third order, Minors and cofactors, Properties of determinants, Matrices upto third order, Types of matrices, algebra of matrix, adjoint and inverse of matrix, Application of determinants and matrices to the solution of linear equations (in three unknowns).

Trigonometry: Compound angles, Multiple and Submultiple angles, Solution of trigonometric equations, Properties of triangles, Inverse circular function, Sum and product of sine and cosine functions.

Co-ordinate geometry of two dimensions: Straight lines, Pairs of straight lines, Circles, Equations of tangents and normals to a circle, Equations of parabola, Ellipse and hyperbola in simple forms, their tangents and normals. Condition of tangency. Rectangular and Conjugate hyperbolas.

Coordinate geometry of three dimensions: Distance and Division formulae, Direction cosines and direction ratios, Projection, Angle between two planes, Angle between a line and a plane. Distance of a point from a line and a plane. Equation of a sphere – general equation, Equation of sphere when end points of diameter are given.

Quadratic polynomials: Roots of quadratic polynomial, Factorisation of quadratic polynomials, Maximum and minimum values of quadratic polynomials for all real values of the variable, sign of the quadratic polynomial for all real values of the variable. Solution of quadratic inequations.

Sequence and Series: Definition, Infinite geometric series, Arithmetico-geometric series, Exponential and Logarithmic series

Vectors: Fundamentals, Dot and cross product of two vectors, Scalar triple product and vector triple product, Simple application of different products.

Differential calculus: Concept of limit, Continuity of functions, Derivative of standard Algebraic and Transcendental functions, Derivative of composite functions, functions in parametric form, Implicit differentiation, Successive differentiation (simple cases), Leibnitz theorem, Partial differentiation, Application of Euler's theorem, Derivative as a rate measure, Increasing and decreasing functions, Maxima and Minima, Indeterminate forms, Geometrical application of derivatives such as finding tangents and normals to plane curves

Integral calculus: Standard methods of integration (substitution, by parts, by partial fraction, etc), Integration of rational, irrational functions and trigonometric functions. Definite integrals and properties of definite integrals, Areas under plane curves.

Differential equations: Definition, order, degree of a differential equation, General and particular solution of a differential equation, Formation of a differential equation, Solution of a differential equations by method of separation of variables, Homogeneous differential equations of first order and first degree, Linear differential equations of the form $d^2y/dx^2 = f(x)$

Probability and statistics: Average (mean, median and mode). Dispersion (standard deviation and variance), Definition of probability, Mutually exclusive events, Independent events, Compound events, Conditional probability, Addition theorem.

Number system : Decimal, binary, octal, hexadecimal numbers and their conversion.

8.1.4 BOTANY

Diversity of plant life: Five kingdom system of classification with their merits and demerits.

Structure, reproduction and economic importance of Bacteria and Viruses.

Life history of representative members of different plant groups: *Spirogyra, Saccharomyces, Funaria, Dryopteris, Cycas.*

Morphology of angiosperms: Normal and Modified roots, stems and leaves, Inflorescence, Flower and its parts, Pollination, Fertilization, Fruits.

Taxonomy of flowering plants: Principles and units of classification (species, genus, family)

Binomial nomenclature,

Studies of important families: Malvaceae, Fabaceae, Asteraceae, Brassicaceae, Liliaceae.

Cell: Structure and function

Cell Theory, Totipotency, Prokaryotic and Eukaryotic cell, Structure of typical plant cell: Cell Wall, Cell Membrane, Cell Organelles (Plastids, mitochondria, endoplasmic reticulum, ribosomes, Golgibodies, Lysosomes, Peroxisomes). Important compounds of cell: Structure and functions of water, aminoacids, proteins, carbohydrates and fats.

Properties and chemical nature of enzymes. Mode of enzyme action.

Continuity of life : Cell division: Mitosis, Meiosis and their significance, Mendel's laws of inheritance: Monohybrid and Dihybrid cross, Incomplete dominance, Multiple allelism.

Genetic material: Structure of nucleic acids. Evidences to establish 'DNA as genetic material' (Griffith and Avery's experiment). Concept of gene, Transcription and translation in Prokaryotes. Regulation of gene expression – induction and repression.

Recombinant DNA and Tissue culture technique: Recombinant DNA techniques and its significance. Gene bank, Production of Transgenic plants with examples, Tissue culture technique.

Complexities of plant life: Meristematic and Permanent tissues, Internal structures of dicot and monocot stems, roots and Isobilateral and Dorsiventral leaves, Normal secondary growth in dicot stem.

Processes in plants: Diffusion, Osmosis, Plasmolysis, Imbibition, Absorption and transport of water and minerals, Transpiration and its significance, Life energy and ATP, Respiration and fermentation, Photosynthesis, Biological nitrogen fixation. Growth and development: Growth regulators – Physiological effects of Auxins, Gibberellin, Cytokinin, Ethylene and Abscissic acid. Elementary idea of photoperiodism and vernalisation. Plant movements (with special reference to geotropism and phototropism).

Ecology: Man and environment, Ecological adaptations (Hydrophytes and Xerophytes), plant succession (Hydrosere, Xeresere), Structure and function of Ecosystem.

Economic Botany: Economic importance of plants like Rice, Gram (green gram) Jute, Groundnut, Mango, Tulsi.

Common plant diseases: Symptoms and control measure of following plant diseases: Powdery mildew of peas, Bacterial blight of rice, Mosaic disease of Papaya.

8.1.5 ZOOLOGY

Animal world: Definition, Scope and branches of Zoology. Charecteristics of living organisims (elementary idea of metabolism, transfer of energy at molecular level, open and closed system, homeostasis, growth & reproduction, adaptation, survival and death).

Classification (Artificial, Natural, Phylogenetic) Two-Kingdoms & Five-Kingdoms – their merits and demerits. Species concept, binomial nomemclature, scientific names of some common animals: Fishes – Rohi, Bhakura, Mirikali, Kau. Amphibians – Frog, Toad. Reptiles – House Lizard, Garden Lizard, Crocodile, Turtle, Cobra, Krait. Birds – Fowl, Peacock, Pigeon, Crow. Mammals – Tiger, Elephant, Cat, Dog, Rabbit and Man.

Diversity of Animal life:

Introductory Concept:

- Concept of body plan, symmetry, coelom, germ layers, homeothermic and poikilothermic animals.
- (2) Salient features of Non-chordate phyla with examples, General characters of chordates upto class levels with examples.

Animal Morphology: Morphology of Paramecium, Sycon, Hydra Planaria, Ascaris, Earthworm, Cockroach, Pila, Starfish, Amphioxus, Bony fish, Cartilaginous fish, Frog, Calotes, Pigeon & Rabbit.

Animal Histology: Types – Epithelial, Connective (details about blood and lymph), Muscular & Nervous – Organs and Organ Systems.

Animal Locomotion: Joints and Muscles in movement of man, mechanism of muscle contraction, Disorders – Arthritis and Osteoporosis.

Animal Physiology: Animal Nutrition – Intracellular and Intercellular digestion, Digestive system of cockroach, Digestive system and process in human (ingestion, digestion, absorption, assimilation and egestion) role of hormones in digestion, malnutrition and under-nutrition.

Animal Respiration: Types of respiration (cutaneous, tvacheal, branchial and pulmonary), Structure and function of respiratory system in man: Respiratory organs, mechanism of pulmonary respiration, pulmonary exchange of gas, transport of gases. Common respiratory disorders – prevention and cure

Animal Circulation: Open circulation, closed circulatory system in man, Structure of Heart, Cardiac Cycle, Arteries, Veins, Capillaries, Portal System, Coronary Circulation, Blood Pressure, Respiratory pigments, Blood groups (A, B, O & Rh), Blood Coagulation, Blood related disorder – Hypertension, Atherosclerosis & Arteriosclerosis, Pace maker.

Animal Excretion: Types of Excretion (Ammonotelism, ureotelism and uricotelism), Excretion in cockroach, Excretion in human – Structure and function of kidney, Role of liver in excretion: Ornithine Cycle. Disorders related to excretion – kidney failure, dialysis, kidney transplantation, Role of ADH.

Control and Co-ordination: Nervous system of cockroach, Nerveous system of human – central, peripherial & autonomic, transmission of nerve impulse, reflex action, sense organs (Eye and Ear).

Human Endocrine System: Endocrine glands (Name, Location, Hormones and their functions), hormones as messengers and regulators, feed back controls, hormonal disorders.

Genetics: Mendelism, linkage and crossing over, recombination, sex chromosomes, sex determination, sex linked inheritance, chromosomal aberrations (structural).

Animal Reproduction and Human Development: Types of

reproduction – Asexual reproduction (Binary fission, multiple fission, budding), Sexual reproduction in human – male and female reproductive system, menstrual cycle.

Human development: Gametogenesis (spermatogenesis, oogenesis), fertilization, development upto 3 germ layers, fate of germ layers, extraembryonic membranes, structure and function of placenta.

Cellualr growth: Hormonal control of growth, Types of regeneration and mechanism (in planaria), ageing (Senescene).

Biology in Human welfare (Elementary idea): Common problems of adolescence (drugs, alcohols and tobacco), social and moral implications, mental and addictive disorders, risk of indiscriminate use of drugs and antibiotics.

<u>Biotechnology:</u> Animal tissue culture, bio-war, biopiracy, cloning and transgenic animals. Elementary idea - organ transplantations, immunity and immune disorders, vaccines and vaccination (recent advances).

<u>Modern techniques in diseases diagnosis:</u> Basic methods of estimation of haemoglobin, sugar and urea in blood, ELISA and WIDAL tests.

Basic principles of ECG, EEG, CT SCAN, MRI, Ultra Sound and Endoscopy, DNA Finger Printing.

<u>Human Diseases</u>: Types, Causes, diagnosis, prevention and treatments—AIDS, STD, Cancer and Diabetes.

8.2. SYLLABI FOR LATERAL ENTRY STREAM (DIPLOMA)

The syllabi given here for OJEE-2012 (Lateral entry diploma holders in Engineering / Technology) is only illustrative and not exhaustive. Since OJEE-2012 is conducted with a view to prepare a relative merit list only for admission, the decision of the OJEE-2012 committee as regards to the scope of syllabi is final. This paper is common to all the discipline except Pharmacy.

(A) BASIC ELECTRICAL ENGINEERING

Fundamentals:

Concept of Source and Load, Ohm's Law, Concept of resistance, Series and Parallel DC circuits, Kirchhoff's Laws, Faraday's Laws of Electromagnetic Induction, Fleming's Left Hand Rule and Right Hand Rule.

AC Theory:

Generation of alternating emf, Difference between DC and AC, Amplitude, Cycle, Time period, Frequency, Phase, Phase Angle, Phase Difference, Instantaneous value, RMS value, Average value, Amplitude factor and Form factor, Phasor diagram representation of AC values, AC through pure resistance, inductance and capacitance, AC through RL, RC and RLC circuits, Impedance Triangle and Power Triangle.

Generation of Electrical Power:

Principle of operation of different electrical power generating plants such as Thermal, Hydro-Electric and Nuclear power plants with their block diagrams, Concept of single phase Transformer and its application.

Conversion of Electrical Energy:

DC machine and its main parts. **DC generators:** Principle of operation and emf equation. **DC motors:** Principle of operation, classification, torque equation and applied voltage V-back emf $\mathsf{E}_{_{\! D}}$ relation. Starters used for DC motors. Use of different types of DC generators and motors. Principle of operation of three-phase and single-phase induction motors. Types and use of three-phase and single-phase induction motors.

Wiring and Power billing:

Types of wiring and their comparison, Layout of household wiring (single line diagram), Basic protective devices in household wiring, Calculation of Power used in small electrical

appliances and installation, Calculation of Energy consumption in small electrical installations, Earthing installation, types (Pipe and Plate earthing) and uses.

Measuring Instruments:

Introduction to measuring instruments, Expression for Torque in measuring instruments, Use of PMMC and MI type of instruments (Ammeters and Voltmeters). Connection diagram of AC/DC ammeter, voltmeter, energy meter and wattmeter for single phase electrical system only.

Storage Devices:

Introduction to storage devices and their types. Charging, Discharging and Maintenance of Lead Acid battery.

(B) MATHEMATICS

Algebra: Definition of complex number, Conjugate of complex number, Modulus and amplitude of a complex number. Algebra of complex numbers. Cube root of unity and their properties, De'Moivre's theorem and its application, Permutation, Combination, Binomial Theorem for any rational index, Relationship between Binomial coefficients.

Determinant and Matrices: Properties of determinants. Crammer's Rule, Types of matrices, Transpose, Adjoint and inverse of a matrix upto third order. Solution of simultaneous equation by matrix method.

Trigonometry: Trigonometrical ratios, multiple and submultiple angles, solution of trigonometrical equations, Properties of triangles, Inverse circular function and its properties.

Analytical Geometry: Distance formula, Division formula, Area of trapezium, Area of Triangle, Equation of straight lines in different form, Distance of a point from a line, Equation of circle in different forms.

Vector Algebra: Definition, Algebra of vectors, Position Vector, Resolution of vector into components, Scalar and Vector product of two vectors and their application, scalar triple product and its application.

Calculus: Limit and continuity of function, Derivative of standard functions, Derivative of composite functions. Differentiation of implicit functions, Differentiation of function in parametric form, Differentiation using logarithm, Differentiation of a function with respect to another function, Successive differentiation in simple cases, Maxima, minima and point of inflection, Partial derivative, Euler's theorem for homogeneous functions.

Standard methods of integration (by parts, by substitution, by partial fraction etc.). Definite integrals and their properties. Area bounded by curves.

Ordinary Differential Equation: Order and degree of differential equation, formation of differential equation. Solution of first order and first degree differential equation.

Coordinate Geometry of three Dimension: Distance and Division formulae, Direction cosine and direction ratio of a line, condition of perpendicularity and parallelism, Equation of plane under different conditions, angle between two planes, Distance of a point from a plane, General equation of a sphere, Equation of a sphere with given diameter.

Probability and Statistics: Measures of central tendency (Mean, Median, Mode), Measures of dispersion (Mean Deviation, Standard Deviation and Variance), Definition of probability, equally likely, Mutually exclusive and independent events. Addition theorem of probability.

(C) ENGINEERING MECHANICS

Force and Moments

Force and its effects, Classification of forces, Principle of Transmissibility, Principle of Superposition, Action and Reaction, Tension and Compression, Free Body Diagram.

Co-planer concurrent forces: Resultant of forces, Equilibrium of forces and equilibrant, Parallelogram law of forces and determination of the resultant of two concurrent forces, Components and resolve parts of a force, Principle of resolution of a force and any number of forces, Analytical determination of resultant of number of concurrent forces, Lami's Theorem, Triangle law of forces and polygon law of forces

Coplanar non-concurrent forces: Moment of a force, Statement and prove of Varignon's theorem, Conditions of equilibrium, Determination of resultant of two like and unlike parallel forces, Couple and its moment, Various types of supports with their reactions, Simple problems on coplanar non concurrent forces with the help of free body diagram.

Center of Gravity and Moment of Inertia

Centroid and Center of Gravity(C.G.), Expression for C.G. of straight line (uniform rod),triangle, rectangle, circular, semicircular lamina. Expression for C.G. of solids like hemisphere and cone (Expression only). Different types of engineering sections (symmetrical and non-symmetrical built up sections). Location of the C.G. of the above sections. Definition Moment of Inertia(M.I.) of plain figure as second moment of area. Perpendicular axes theorem, parallel axis theorem. M.I. of plane lamina like rectangle, triangle, circle, and semicircle (from 1st principle) M.I.of different engineering sections.

Friction

Frictional force, angle of friction, limiting friction, co-efficient of friction, Laws of Static Friction. Simple problems on ladder, Body on Inclined planes with applied force parallel to the plane and horizontal. Screw Jack.

Gear Drive

Various types of gears, Gear terminology, Velocity ratio and expression for the velocity ratio for simple gears. Types of gear trains (simple and compound gear trains)

Simple Lifting Machine

Definition of a machine. Simple and compound lifting machines. Mechanical Advantage (MA), Velocity Ratio (VR) and efficiency of lifting machine. Relationship between MA, VR and efficiency. Laws of machine, Friction in machines, Friction in terms of load and friction in terms of effort. Reversible machine and self-locking machine. Condition of reversibility of a machine. Velocity Ratio and efficiency of 1st , 2nd &3rd system of pulleys; Simple and differential wheel & axle, Screw jack.

Simple Stress and Strain

Stress, strain, Tensile, compressive and shear types of stress and strain, Hooke's Law of elasticity, Poisson's ratio, Elastic limit, Elastics Constants (E, G & K) relationship between E,G &K, Stress-strain curve and salient points on stress-strain curve for ductile material. Simple problems on stress and strain in case of material with uniform cross section.

Dvnamics

Kinematics and kinetics of a particle, Principle of Dynamics: Newton's laws of motion, D'Alembert's Principle and its application. Motion of particle acted upon by a constant force. Engineering Application of Work, Power and Energy: Work done, force-displacement diagram, Work done in stretching a spring, Power, Indicated Power, Brake Power and efficiency. Kinetic and potential energy & its application, Simple Harmonic Motion (SHM) with examples. Free Vibration, amplitude, frequency and time period in SHM, Velocity and acceleration of particle executing SHM, application of SHM to engineering problems. Force, Momentum and Impulse, Conservation of energy and linear momentum, Collision of elastic bodies, Coefficient of restitution (e), Velocity after impact. Impact of body with a fixed plane.

8.3 SYLLABI FOR LATERAL ENTRY STREAM (+3 Sc. / B.Sc.)

8.3.1. B.Sc. Paper-I (+3 Sc. / B. Sc Mathematics)

Algebra : Mappings. Equivalence relations and partition. Congruence modulo n relation.

Symmetric. Skew symmetric. Hermitian and skew Hermitian matrices. Elementary operations on matrices. Inverse of a matrix. Linear independence of row and column matrices. Row rank, column rank and rank of a matrix. Equivalence of column and row ranks. Eigenvalues, eigenvectors and the characteristic equation of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix. Applications of matrices to a system of linear (both homogenous and non-homogenous) equations. Theorems on consistency of a system of linear equations.

Definition of a group with examples and simple properties. Subgroups. Generation of groups. Cyclic groups. Coset decomposition. Lagrange's theorem and its consequences. Fermat's and Euler's theorems. Homomorphism and isomorphism. Normal subgroups. Quotient groups. The fundamental theorem of homomorphism. Permutation groups. Even and odd permutations. The alternating groups An. Cayley's theorem. Introduction to rings, subrings, integral domains and fields. Characteristic of a ring.

Differential Calculus: Definition of the limit of a function. Basic properties of limits. Continuous functions and classification of discontinuities. Differentiability. Successive differentiation. Leibnritz theorem. Maclaurin and Taylor series expansions. Asymptotes. Curvature. Tests for concavity and convexity. Points of inflexion. Multiple points. Tracing of curves in Cartesian and polar coordinates.

Integral Calculus: Integration of irrational algebraic functions and transscendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.

Ordinary Differential Equations: Degree and order of a differential equation. Equations of first order and first degree. Equations in which the variables are separable. Homogeneous equations. Linear equations and equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x,y,p. Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficient. Homogeneous linear ordinary differential equations.

Linear differential equations of second order. Transformation of the equation by changing the dependent variable / the independent variable. Method of variation of parameters.

Ordinary simultaneous differential equations.

Vector Analysis: Scalar and vector product of three vectors. Product of four vectors. Reciprocal Vectors. Vector differentiation. Gradient, divergence and curl. Vector integration. Theorems of Gauss, Green, Stokes and problems based on these.

Geometry: General equation of second degree. Tracing of conics. System of conics. Confocal conics. Polar equation of a conic.

The straight line and the plane, sphere, cone, cylinder.

Advanced calculus: Continuity. Sequential continuity. Properties of continuous functions. Uniform continuity. Chain rule of differentiability. Mean value theorems and their geometrical interpretations. Darboux's intermediate value theorem for derivatives. Taylor's theorem with various forms of remainders.

Limit and continuity of functions of two variables. Partial differentiation. Change of variables. Euler's theorem of homogeneous functions. Taylor's theorem for functions of two

variables. Jacobians.

Envelopes. Evolutes. Maxima, minima and saddle points of functions of two variables. Lagrange's multiplier method. Indeterminate forms.

Beta and Gamma functions. Double and tripe integrals. Dirichlet's integrals. Change of order of integration in double integrals.

Definition of a sequence. Theorems of limits of sequences. Bounded and monotonic sequences. Cauchy's convergence criterion. Series of non-negative terms. Comparison tests. Cauchy's integral test. Ratio tests. Raabe's, logarithmic, De Morgan and Bertrand's tests. Alternating series. Leibnitz's theorem. Absolute and conditional convergence. Series solutions of differential equations-Power series method, Bessel, Legendre and Hypergeometric equations. Bessel, Legendre and Hypergeometric functions and their properties-convergence, recurrence and generating relations. Orthogonality of functions orthogonality of Bessel functions and Legendere polynomials.

Laplace Transformation: Linearity of the Laplace transformation. Existence theorem for Laplace transforms. Laplace transforms of derivatives and integrals. Shifting theorems. Differentiation and integration of transforms. Convolution theorem. Solution of integral equation and systems of differential equation using the Laplace transformation.

Linear Algebra: Vector space, Basics, Dimensions, Linear Independence and Dependence of vectors, Linear Transformation, Rank and Nullity, Range and Kernel.

Numerical Analysis : Solution of equations: Bisection, Secant, Regula falsi, Newton's Method, Roots of Polynomials.

Interpolation: Lagrange and Hermite Interpolation, Divided Difference Interpolation, Gauss Interpolation formula, Numerical Differentiation. Numerical Integration: Newton-Cotes formula, Gauss quadrature formula, Chebychev's Formulae.

8.3.2. +3 Sc./B.Sc. Paper-II (+3 Sc./B.Sc Physics)

Mechanics: laws of motion, motion in a uniform field, components of velocity and acceleration in different coordinate systems. Motion under a central force, Kepler's law, Gravitational law and field. Potential due to a spherical body, Gauss and Poisson equations for gravitational self-energy. System of particles, center of mass, equation of motion, conservation of linear and angular momenta, conservation of energy, elastic and inelastic collisions. Rigid body motion, rotational motion, moment of inertia and their products.

Oscillations: Harmonic oscillations, kinetic and potential energy, examples of simple harmonic oscillations, spring and mass system, simple and compound pendulum, torsional pendulum. Superposition of two simple harmonic motions of the same frequency along the same line, interference, superposition of two mutually perpendicular simple harmonic vibrations of the same frequency, Lissajous figures, case of different frequencies.

Motion of charged particles in electric and magnetic fields: E as an accelerating field, electron gun, case of discharge tube, linear accelerator, E as deflecting field-CRO, sensitivity.

Properties of Matter: Elasticity, small deformations, Hooke's law, elastic constants for an isotropic solid, beams supported at both the ends, cantilever, torsion of a cylinder, bending moments and shearing forces. Bernoulli's theorem, viscous fluids, streamline and turbulent flow. Poiseulle's law. Capillarity, tube of flow, Reynold's number, Stokes law. Surface tension and surface energy, molecular interpretation of surface tension, pressure across a curved liquid surface, angle of contact and wetting.

Electrostatics: Coulomb's law (in vacuum) expressed in vector forms, calculation of E for simple distributions of charge at rest, dipole and quadrupole fields Work done on a charge in an electrostatic field expressed as a line integral, conservative nature of the electrostatic field. Electric potential , E = -dV/dx, Torque on a dipole in a uniform electric field and its energy, flux of the electric field, Gauss' law and its application for finding E for symmetric charge distributions, Gaussian pillbox, fields at the surface of a conductor. Screening of electric field by a conductor. Capacitors, electrostatic energy, force per unit area of the surface of a conductor in an electric field.

Electric Currents: Steady current, Current density vector J, non-steady currents and continuity equation, Kirchoff's law and analysis of multi-loop circuits, rise and decay of current in LR and CR circuits, decay constants, transients in LCR circuits, AC circuits, Complex numbers and their applications in solving AC circuit problems, complex impedance and reactance, series and parallel resonance, Q factor, power consumed by an AC circuit, power factor.

Magnetostatics: Force on a moving charge, Lorentz force equation and definition of B, force on a straight conductor carrying current in a uniform magnetic field, torque on a current loop, magnetic dipole moment, Biot and Savart's law, calculation of B in simple geometric situations, Ampere's law

 ∇ . B=0, ∇ x B, = $\mu_0 J$, field due to a magnetic dipole.

Time Varying Fields: Electromagnetic induction, Faraday's law, electromotive force e= .E.dr, Integral and differential forms of Faraday's law, mutual and self inductance, transformers, energy in a static magnetic field, Maxwell's displacement current, Maxwell's equations, electromagnetic field, energy density.

Electromagnetic Waves: The wave equation satisfied by E and B, plane electromagnetic waves in vacuum, Poynting's vector.

Kinetic theory of Matter: Real gas: Van der Waals gas, equation of state, nature of Van der Waals forces, comparison with experimental P-V curves. The critical constants, distinction between gaseous and vapour state, Joule expansion of ideal gas, and of a Van der Waals gas, Joule coefficient, estimates of J-T cooling.

Thermodynamics: Blackbody radiation: energy distribution in blackbody spectrum. Planck's quantum postulates, Planck's law. Interpretation of behaviour of specific heats of gases at low temperature.

Kinetic Theory of Gases: Maxwellian distribution of speeds in an ideal gas: distribution of speeds and of velocities, distinction between mean, rms and most probable speed values.

Physical Optics: The principle of superpositions, Interference of a light, double-slit interference, coherence requirement for the sources, optical path retardation, lateral shift of fringes, Localized fringes: thin films, Michelson interferometer, Fresnel diffraction: Fresnel half-period zones, plates, straight edge, rectilinear propagation. Fraunhofer diffraction: Diffraction of a single slit, the intensity distribution, diffraction at a circular aperture and a circular disc. Diffraction gratings: Diffraction at N parallel slits, intensity distribution, plane diffraction grating, polarization of transverse waves, plane, circular and elliptically polarized light. Polarization by reflection and refraction. Double reflection and optical rotation: Refraction, in uniaxial crystals, its electromagnetic theory. Phase retardation plates, double image prism, rotation of plane of polarized light, origin of optical rotation in liquids and in crystals.

Quantum Mechanics: Origin of the quantum theory: failure of classical physics to explain the phenomena such as blackbody spectrum, photoelectric effect, Ritz combination principle in

spectra, stability of an atom, Planck's radiation law, Einstein's explanation of photoelectric effect, Bohr's quantization of angular momentum and its applications to hydrogen atom. limitations of Bohr's theory. Wave particle duality and uncertainty principle: de Broglie's hypothesis for matter waves, the concept of wave and group velocities, evidence for diffraction and interference of particles, experimental demonstration of matter waves. Consequence of de Broglie's concepts; quantization in hydrogen atom; quantized energy levels of a particle in a box, wave packets. Heisenberg's uncertainty relation for p and x, its extension to energy and time. Consequence of the uncertainty relation: gamma ray microscope, diffraction at a slit, particle in a box, position of electron in a Bohr orbit. Quantum Mechanics: Schrodinger's equation. Postulatory basis of quantum mechanics, operators, expectation values, transition probabilities, applications to particle in a one dimensional box, harmonic oscillator. reflection at a step potential, transmission across a potential

Week spectra: continuous X-ray spectrum and its dependence on voltage, Characteristics X-rays. Moseley's law, Raman effect, Stokes and anti-Stocks lines, fission and fusion (concepts), energy production in stars by p-p and carbon cycles (concepts). Cyclotron.

Solid State Physics: X-ray diffraction, Bragg's law,

Magnetism: Atomic magnetic moment, magnetic susceptibility, Dia-Para-, and Ferromagnetism, Ferromagnetic domains, Hysteresis.

Band Structure: Energy bands, energy gap, metals, insulators, semiconductors.

Solid State Devices: Semiconductors - Instrinsic semiconductors, electrons and holes, Fermi level. Temperature dependence of electron and hole concentrations. Doping: impurity states, n and p type semiconductors.

Semiconductor devices: p-n junction, majority and minority charge carriers, junction diode, Zener diode.

Electronics: Power supply: diode as a circuit element, load line concept, rectification, ripple factor, Zener diode, voltage stabilization, IC voltage regulation, characteristics of a transistor in CB, CE and CC mode.

Field effect transistors: JFET volt-ampere curves, biasing JFET, RC coupled amplifier, gain, frequency response, input and output impedance.

8.3.3 +3 Sc./B.Sc PAPER-II (+3 Sc./B.Sc CHEMISTRY)

Thermodynamics: Definition of thermodynamic terms, systems, surroundings etc. Types of systems, intensive and extensive properties, state and path functions and their differentials, thermodynamic processes, concept of heat and work. First law of thermodynamics, statement, definition of internal energy, enthalpy, heat capacity, heat capacity at constant volume, constant pressure and their relation, Joule's law, Joule-Thomson coefficient and inversion temperature, calculation of w, q, U, H, for the expansion of ideal gases under isothermal and adiabatic conditions for reversible processes, Workdone in irreversible process.

Thermochemistry: standard state, standard enthalpy of formation, Hess's law of heat of summation and its application, heat of reaction at constant pressure and constant volume, enthalpy of neutralization, bond dissociation energy and its calculation from thermochemical data, temperature dependence of enthalpy. Kirchoff's equation.

Chemical equilibrium: Equilibrium constant and free energy. Derivation of law of mass action (Study of homogeneous and heterogeneous equilibria). Le chaterlier's principle.

Phase equilibrium: Statement and meaning of the terms - phase, component and degree of freedom, derivation of Gibbs

phase rule, phase equilibrium of one component system - water and sulphur system.

Electrochemistry-I: Electrical transport-conduction in metals and in electrolyte solution, specific conductance and equivalent conductance, measurement of equivalent conductance, variation of equivalent and specific conductance with dilution, migration of ions and Kohlrausch law, Arrhenius theory of electrolytic dissociation and its limitations, weak and strong electrolytes, Ostawald's dilution law, its uses and limitations. Application of conductivity measurements, determination of degree of dissociation, determination of Ka of acids, Determination of solubility product of a sparingly soluble salt, conductometric titration.

Electrochemistry-II: Types of reversible electrodes- gas metal ion, meta-metal ion, metal-insoluble salt-anion and redox electrodes. Electrode reactions, Nernst equation, derivation of cell EMF and single electrode potential, standard hydrogen electrodes-reference electrodes, standard electrode potentials, sign conventions, electrochemical series and its significant, EMF of a cell and its measurements. Computation of cell EMF, concentration of cell with and without transport, liquid junction potential, definition of bH, and bKa, determination of bH using hydrogen electrode, buffersmechanism of buffer action, Henderson equation. Hydrolysis of salts (quantitative treatment), determination of bH, Ka, Kw and Kh by emf methods.

Atomic Structure: Idea of de Broglie matter waves, Heisenberg uncertainty principle, atomic orbitals, Schrodinger wave equation (Mathematical derivations excluded) significance of quantum numbers, shapes of s,p,d orbitals. Aufbau and Pauli exclusion principles, Hund's multiplicity rule. Electronic configurations of the elements.

Periodic Properties: Atomic and ionic radii, ionization enthalpy and electron – gain enthalpy, electronegativity-definition, methods of determination or evaluation, trends in periodic table and applications in predicting and explaining the chemical behaviour.

 $\label{eq:Chemical Bonding:Covalent Bond - valence bond theory and its limitations, directional characteristics of covalent bond, various types of hybridization and shapes of simple inorganic molecules and ions. Valence shell electron pair repulsion, (VSEPR) theory of NH₃, H₃O+, SF₄, CIF₃, ICI₂ and H₂O. MO theory, homonuclear and heteronuclear (CO and NO) diatomic molecules.$

s-Block Elements: Comparative study, diagonal relationships, salient features of hydrides, solvation and complexation tendencies including their function in biosystems.

p-Block Elements: Comparative study (including diagonal relationship) of groups 13-17 elements, compounds like hydrides, oxides, oxyacids and halides of groups 13-16, hydrides of boron-diborane, borazine, borohydrides, fullerenes, carbides, fluorocarbons, silicates (structural principle), basic properties of halogens, interhalogen compounds.

Chemistry of Noble Gases: Chemical properties of the noble gases, chemistry of xenon, structure and bonding in xenon compounds (fluorides and oxides), Chemistry of elements of first transition series. Characteristic properties of d-block elements

Properties of the elements of the first transition series, their binary compounds and complexes illustrating relative stability of their oxidation states, coordination number and geometry.

Coordination Compounds: Werner's coordination theory and its experimental verification, effective atomic number concept, chelates, nomenclature of coordination compounds, isomerism in coordination compounds (4 and 6 only) valence

bond theory of transition metal complexes.

Acids and Bases: Arrhenius, Bronsted-Lowry, Lewis concepts of acids and bases.

Structure, bonding and mechanism of Organic reactions:

Inductive effect, resonance, steric effect, influence of these effects on acidity, basicity and dipolemoments, reactive intermediate- carbocations, carbanions, free-radicals and carbenes - formation, stability and structure, types and mechanism of organic reactions- SN1 , SN2, SE1, SE2 , E1, E2, AdE, AdN,

Stereochemistry of Organic compounds: Concept of isomerism, types of isomerism, optical isomerism, elements of symmetry, molecular chirality, enantiomers, stereogenic center, optical activity, properties of enantiomers, chiral and achiral molecules with two stereogenic centers, diastereomers, meso compounds, relative and absolute configuration, sequence rules, D-L, R-S, systems of nomenclature, geometric isomerism, determination of configuration of geometric isomerism, conformational analysis of ethane and n-butane, conformations of cyclohexanes, axial and equatorial bonds, difference between conformation and configurations.

8.3.4 +3 Sc./B.Sc. PAPER-I (+3 Sc./B.Sc Biology)

BOTANY

Microbes: Viruses and Bacteria: General account of viruses and bacteria – structure, nutrition, reproduction and economic importance.

Diversity of seed plants: Characterstics of seed plants; evolution of the seed habit; seed plants with (angiosperms) and without (gymnosperms) fruits. Morphology of vegetative and reproductive parts; anatomy of root, stem and leaf; Reproduction and life cycle of *Cycas, Pinus and Ephedra*. Botanical nomenclature: Principles and rules; taxonomic ranks; type concept; principle of priority. Classification of angiosperms; salient features of the systems proposed by Bentham and Hooker and Engler and Prantle. Major contributions of cytology, phytochemistry and taximetrics to taxonomy. Diversity of flowering plants as illustrated by members of the families: Ranunculaceae, Brassicaceae, Malvaceae, Rutaceae, Fabaceae, Apiaceae, Acanthaceae, Apocynaceae, Asclepiadaceae, Solanaceae, Lamiaceae, Chenopodiaceae, Euphorbiaceae, Liliaceae and Poaceae.

Development & reproduction in flowering plants: The basic body plan of a flowering plant – modular type of growth. The shoot systems : the shoot apical meristem and its histological organization; vascularisation of primary shoot in monocotyledons and dicotyledons; formation of internodes, branching pattern; monopodial and sympodial growth; cambium and its functions; formation of secondary xylem; a general account of wood structure in relation to conduction of water and minerals; characteristics of growth rings, sapwood and heart wood; secondary phloem - structure - function relationships; Leaf: origin, development, arrangement and diversity of size and shape; internal structure in relation to photosynthesis and water loss; adaptations to water stress; senescence and abscission. The root system : the root apical meristem; differentiation of primary and secondary tissues and their roles; structural modification for storage, respiration, reproduction and for interaction with microbes. Flower: a modified shoot; functions; structure of anther and pistil; the male and female gametophytes; types of pollination; pollenpistil interaction, self incompatibility; double fertilization; formation of seed - endosperm and embryo; fruit development and maturation.

Cell Biology & Genetics: Structure and function of nucleus: Ultrastructure of nuclear membrane & nucleolus.

Chromosome organization: Morphology; centromere and telomere; Chromosome alterations: deletions, duplications, translocations, inversions; Variations in chromosome number: aneuploidy, polyploidy; Sex chromosomes. DNA, the genetic materials: DNA structure; replication; DNA- protein interaction; the nucleosome model; genetic code; satellite and repetitive DNA. Cell division: mitosis; meiosis. Genetic inheritance: Mendelism Linkage analysis; Allelic and nonallelic interactions. Gene expression: Structure of gene; transfer of genetic information; transcription, translation. Genetic variation: Mutations, spontaneous and induced; transposable genetic elements; DNA damage and repair. Extranuclear genome: Presence and function of mitochorndial and plastid DNA. Structure and function of other organelles: Golgi, ER, peroxisomes, vacuoles. The cell envelopes : Plasma membrane; functions; the cell wall.

Biochemistry: Basics of enzymology: Discovery and nomenclature; characteristics of enzymes; concept of holoenzyme, coenzyme and cofactors; regulation of enzyme activity; mechanism of enzyme action. Photosynthesis: Significance; historical aspects; photosynthetic pigments; action spectra and enhancement effects; Z-scheme; photophosphorylation; Calvin cycle; C4 pathway; CAM plants; photorespiration. Respiration: ATP - the biological energy currency; aerobic and anaerobic respiration; Glyolysis, kreb's cycle; electron transport system and oxidative phosphorylation (chemi-osmotic theory). Nitrogen and lipid metabolism : Biology of nitrogen fixation; importance of nitrate reductase and its regulation. Structure and function of lipids; fatty acids biosynthesis; oxidation; saturated and unsaturated fatty acids; storage and mobilization of fatty acids. The concept of photoperiodism; physiology of flowering; florigen concept; Physiology of senescence, fruit ripening; Plant hormones auxins, gibberllins, cytokinins, abscisic acid and ethylene: history of their discovery biosynthesis and mechanism of

Biotechnology: Functional definition; basic aspects of plant tissue culture; cellular totipotency, differentiation and morphogenesis; Genetic engineering: Tools and techniques of recombinant DNA technology; cloning vectors; genomic and c-DNA-library transposable elements; techniques of gene mapping and chromosome walking. Biology of Agrobacterium; Vectors for gene delivery and marker genes; salient achievements in crop biotechnology.

Ecology: Plants and environment: Atmosphere (gaseous composition), water (properties of water cycle), light (global radiation, photosynthetically active radiation), temperature, soil (development, soil profiles, physico-chemical properties), and biota. Population ecology: Growth curves; ecotypes; ecads. Community ecology: Community characteristic, frequency, density, life forms, biological spectrum; ecological succession. Ecosystems: Structure; abiotic and biotic components; food chain, food web, ecological pyramids, energy flow; biogeochemical cycles of carbon, nitrogen and phosphorus. Biogeographical regions of India: Vegetation types of India: Forests and grasslands.

Economic Botany: Food plants: Rice, wheat, maize, potato, sugarcane. Fibers: Cotton and jute. Vegetable oils: Groundnut, mustard and coconut. General account of sources of firewood, timber and bamboos: Spices: General account. Medicinal plants: Beverages: (Tea and coffee), Rubber.

ZOOLOGY

Diversity-I: Principles of classification – salient features and classification upto orders in non-chordates. Structural organization in different classes of non-chordates. Protozoa – Type study (paramecium), parasitic protozoans. Porifera and coelenterata – Type study (Sycon and Aurelia), Coral and coral reefs. Platyhelminthes and Nemathelminthes— Type study

(Fasciola, Taenia) and parasitic adaptations. Annelida – Type study (Earthworm). Mollusca – Type study (Pila). Arthropoda – Crustacean larval forms, Type study (Prawn).

Cell Biology: Cell Theory. Structure of prokaryotic and eukaryotic cells. Cellular organelles. Role of mitochondira in cellular energy transactions. Membrane transport of small molecules. Cell signaling. Cytoskeleton. Cell cycle. The mechanics of cell division (Mitosis and Meiosis). Cell junctions, cell adhesion. Biology of cancer.

Animal Diversity-II: Origin and general characters of chordates. Protochordates – Classfication upto orders, structural organization of Amphioxus, Balanoglossus and Herdmania. Agnatha – Classification upto orders. Fishes – Classification upto orders, Type study (Scoliodon). Amphibians – Origin of land vertebrates, classification upto orders, parental care. Reptiles – Classification upto orders, poisonous snakes of India. Bird migration, principles of bird flight, origin of birds. Mammals – Origin, classification and general characters. Comparative anatomy of systems (e.g. kidney, heart).

Physiology: Aim and Scope of Physiology – Cell Physiology, mammalian physiology, comparative physiology and applied physiology. Chemical foundations of physiology – solutions, osmotic pressure, diffusion, pK and pH, buffers. Biomolecules – Carbohydrates, lipids, proteins, nucleic acids. Blood – Composition and function of blood; Blood groups; Blood coagulation;. Heart – Structure; origin, conduction and regulation of heart beat;. Respiration – Mechanism and control of breathing. Digestion and absorption of dietary components. Structure and function of kidney, physiology of urine formation. Physiology of contraction of skeletal and smooth muscle. Physiology of nervous conduction. Endocrine glands (Pituitary, Thyroid). Nature of enzymes.

Vertebrate Endocrinology and Reproductive Biology: Classification of hormones. Hormonal regulation of physiological processes – basic concepts. Hormones and human health – production of hormones as pharmaceuticals. Reproductive cycles in vertebrates. Fertilization in vivo and in vitro. Embryo transfer technology. Sex determination and sex differentiation. Endocrine disorders – brief description.

Evolution & Behaviour : Concept of Evolution. Origin of life on Earth. Origin of prokaryotic and eukaryotic cells. Variations, mutations, recombination, Isolation, Natural selection. Concept of species and speciation. Mimicry. Population genetics, Genetic drift, Hardy-Weinberg Law. Evolution of Man. Introduction to Ethology – animal sense organs. Patterns of behaviour. Reproductive behavioural patterns. Social organization in animals, social interactions among individuals. Learning behaviour in animals. Drugs and behaviour.

8.4 SYLLABI FOR LATERAL ENTRY (PHARMACY)

8.4.1 PAPER for Pharmacy

The course content is same as the syllabus of part-I and part-II of Diploma in Pharmacy as per the Education Regulation – 1991 of Pharmacy Council of India.

8.5 SYLLABUS FOR MCA STREAM

8.5.1 MATHEMATICS

Logic : Statement, Negation, Implication, Converse, Contrapositive, Conjuction, Disjunction, Truth Table. Different methods of proof, Principle of Mathematical induction.

Algebra of sets : Set operation, Union, Intersection, Difference, Symmetric difference, Complement, Venn diagram, Cartesian product of sets, Relation and functions, Equivalence relation, Kinds of functions and their domain and range, Composite function, Inverse of a function.

Number system: Real numbers (algebraic and order properties, rational and irrational numbers), Absolute value,

Triangle inequality, $AM \ge GM$, Inequalities(simple cases), Complex numbers, Algebra of complex numbers, Conjugate and square root of a complex number, Cube roots of unity, De Moivre's theorem with simple application. Permutations and Combinations -simple applications, Binomial theorem for positive integral index, Identities involving binomial coefficients

Determinants and matrices: Determinants of third order, Minors and cofactors, Properties of determinants, Matrices upto third order, Types of matrices, algebra of matrix, adjoint and inverse of matrix, Application of determinants and matrices to the solution of linear equations (in three unknowns)

Trigonometry: Compound angles, Multiple and Submultiple angles, Solution of trigonometric equations, Properties of triangles, Inverse circular function, Sum and product of sine and cosine functions.

Co-ordinate geometry of two dimensions: Straight lines, Pairs of straight lines, Circles, Equations of tangents and normals to a circle, Equations of parabola, Ellipse and hyperbola in simple forms, their tangents and normals. Condition of tangency. Rectangular and Conjugate hyperbolas.

Coordinate geometry of three dimensions: Distance and Division formulae, Direction cosines and direction ratios, Projection, Angle between two planes, Angle between a line and a plane. Distance of a point from a line and a plane. Equation of a sphere – general equation, Equation of sphere when end points of diameter are given.

Vectors: Fundamentals, Dot and cross product of two vectors, Scalar triple product and vector triple product, Simple application of different products.

Differential calculus: Concept of limit, Continuity of functions, Derivative of standard Algebraic and Transcendental functions, Derivative of composite functions, functions in parametric form, Implicit differentiation, Successive differentiation (simple cases), Leibnitz theorem, Partial differentiation, Application of Euler's theorem, Derivative as a rate measure, Increasing and decreasing functions, Maxima and Minima, Indeterminate forms, Geometrical application of derivatives such as finding tangents and normals to plane curves.

Integral calculus: Standard methods of integration (substitution, by parts, by partial fraction, etc), Integration of rational, irrational functions and trigonometric functions. Definite integrals and properties of definite integrals, Areas under plane curves.

Differential equations: Definition, order, degree of a differential equation, Formation of a differential equation, Solution of a differential equations of the following types.

- (i) dy/dx = f(x)
- (ii) dy/dx = f(x) g(y)
- (iii) $d^2y/dx^2 = f(x)$

Probability and statistics: Average (mean, median and mode). Dispersion (standard deviation and variance), Definition of probability, Mutually exclusive events, Independent events, Compound events, Conditional probability, Addition theorem.

Number system : Decimal, binary, octal, hexadecimal numbers and their conversion.

8.5.2 COMPUTER AWARENESS:

Introduction to Computer: Brief history of Computers, Components of a Computer, Computer related general knowledge, Application of Computers, Classification of Computers, Windows.

Computer Arithmetic: Number System with general base, Number base conversion, Elementary arithmetic operation.

C Language: Keywords, Constants, Variables, Identifiers, operators, statements. Writing simple C program.

Arithmetic and logical expression, simple if, nested if, if-else-ladder, conditional operators, switch case, for, while and do while loops.

Concept of functions in C.

Note: The Question will cover the entire course and will be multiple choice type similar to the ones given in Section 7.5

8.6 SYLLABUS FOR MBA/PGDM/PGCM/PGDM (Executive)

Questions will be meant to measure a person's general entrance test in the following aspects:

Section	No. of Questions
Verbal reasoning	40
Analytical reasoning	40
General Knowledge	10
Comprehension	20
Computer and Business fundame	ntals 10

8.6.1 Sample Questions:

A sample of questions is being provided for making the candidates aware of the style and difficulty level of the questions. The topics covered here in sample are not true indication of the syllabus and the test may contain questions from all related areas under different sections. The samples are given primarily to help the candidates understand the pattern of the test.

Section A: Verbal Reasoning

1. Identify the odd word

A.	Sweep	B.	wipe
C.	Scrub	D.	Stain

2. The place where bricks are baked

A.	Foundry	B.	Mint
C.	Cemetery	D.	Kiln

3. My watch is 6 minutes fast and the train which should have arrived at my station at 11.30 am was 5 minutes late. What time was it by my watch when the train arrived?

A.	11.41 am	B.	11.40 am
C.	11.38 am	D.	Don't Know

Section B: Analytical Reasoning

1. Which of the following ratio is greatest?

Α.	7:15	B.	15:23
C.	17:25	D.	21:29

 If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 15 men and 20 boys in doing the same type of work will be:

A.	4 days	B.	5 days
C.	6 days	D.	7 days

3. When the integer n is divided by 6, the remainder is 3. Which of the following is not a multiple of 6?

Α.	n-3	B.	n+3
C.	2n	D.	3n

Section C: General Knowledge

1. The term' steeplechase' is associated with

A.	Horse racing	B.	Boxing
C.	Polo	D.	Rowing

2. The first indigenously built missile boat is named as:

A. INS Mani B. INS Shilpi
C. INS Bibhuti D. INS Vikrant

 Central Salt and Marine Chemicals Research Institute is located at

A. AhmedabadB. BhavanagarC. Gandhi nagarD. Panaji

Section D: Comprehension

Speech is a great blessing but it can also be great curse, for which it helps us to make our intentions and desires known to our fellows, it can also, if we use it carelessly, make your attitude completely misunderstood. A slip of the tongue, the use of an unusual word, or of an ambiguous word and so on, may create an enemy where we had hope to win a friend. Again different classes of people of an educated man may strike an uneducated listener as pompous. Unwittingly we may use a word which bears a different meaning to our listener from what it does to men of our own class. Thus speech is not a gift to use lightly without thought, but one which demands careful handling. Only a food will express himself a like to all kinds and conditions of men.

1. Speech can be a curse, because it can

A. reveal our intensions

B. lead to carelessness

C. hurt others

D. create misunderstanding

2. A 'slip of tongue' means some thing said

A. unintentionally

B. wrongly by chance

C. without giving proper thought

D. to hurt another person

3. The best way to win a friend is to avoid in speech

A. ambiguityB. verbosity

C. promposity

D. iron

Section E : Computer & Business Fundamentals

1. The widely used code in data communication is

A. 8 bit ASCIIB. 7 bit ASCII

C. EBCDICD. None of these

2. Point to sales terminal refers to

A. Terminal associated with MICR

B. Smart Terminal

C. Terminal associated with OCR

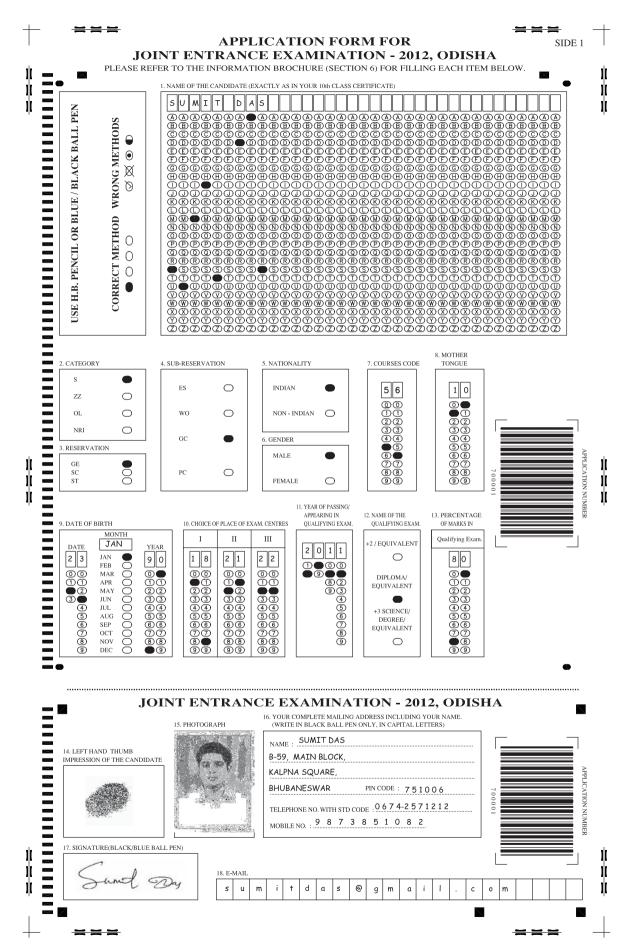
D. None of the above

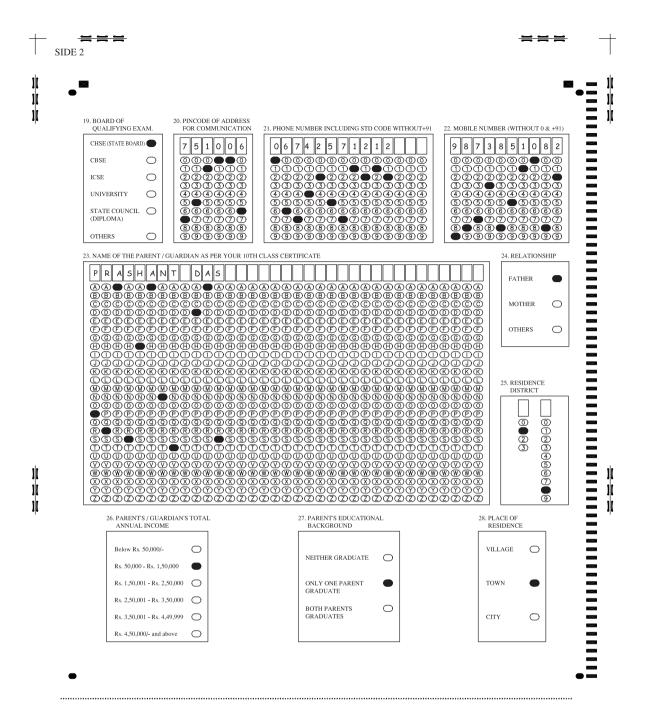
3. How many Stock Exchanges are there in India?

A. 21B. 22

C. 26

D. None of the above





29. DECLARATION BY THE CANDIDATE

I hereby declare that all the 28 particulars stated in this application are true to the best of my knowledge and belief. I have read the Information Brochure (OJEE-2012) and I shall abide by the terms and conditions therein. In the event of suppression or distortion of any fact like suppressing category or educational qualifications or nationality etc. made in my application form, I understand that I will be denied the opportunity to appear in the OJEE 2012 and if already admitted, my admission / degree acquired is liable for cancellation.I understand that the decision of the Govt. of Odisha / OJEE 2012 regarding my admission to Engg./ Architecture/ MBBS/ BDS/ Pharmacy/ MCA/ Lat. Entry/ MBA/ PGDM/ PGCM/ PGDM(Executive) is final and I shall abide by the decision.Further, if admitted, I promise to abide by the rules and norms of discipline of the institute where I will join.

Place: BHUBANESWAR

Date: 14th March, 2012

Signature of Candidate

Name of Parent / Guardian PRASHANT DAS

Countersigned by Parent / Guardian

ODISHA JOINT ENTRANCE EXAMINATION (OJEE-2012) APPENDIX - I 'PERMANENT RESIDENT OF ODISHA' CERTIFICATE

Office of the	
Miscellaneous Certificate Case No.	of 2012.
This is to certify that Shri / Smt / Miss	Son / daughter
/ wife of	· · ·
ofin	
PSTahasil	•
Taliasii	
The certificate is being granted only for the purpose of OJEE, 2012 Odisha	ā.
Full Signature of the Applicant	Signature of Revenue Officer
	Date:
Round Seal of the Office	Designation (with Seal of Office)
Note: 1. Revenue Officer means the Chief Officer in charge of Revenue Administrative in	-
Additional District Magistrate and Additional Tahasildar. 2. No part of the form should be mutilated in any manner. In case of mutilation the company to the form should be mutilated in any manner.	
CERTIFICATE OF EMPLOYMENT OF CANDIDA Employer - Government of Odisha / Government of India / Government Odisha Undertakings located in Odisha at the time of application (Strike not be considered as a proof of permanent resident certificate for careserved category. 1. Name and Address of Organisation / Office in which employed 2. Name and Designation of the certifying authority (Employer / Head of Office / Organisation) 3. a) Name in full and designation of employee to whom certificate is being issued. b) Whether in permanent employment c) Present Place and State of posting d) Permanent address as per service records 4. Name of the candidate in full 5. Relationship of the employee with the candidate: Father / Mother / Husband / Wife (Strike out whichever is not applicable) 6. Details of the Institution from which the candidate has passed / appeared at 10+2 /+3, any other Examination 7. Particulars of employment of the employee Place	of India Undertakings and Government of off whichever is not applicable). This shall ndidates opting for admission under any
Full Signature of Employee	Signature of the Employer /
Date	Head of Office / Organisation
Date	_
	Date:

Designation with Seal of Office **Note :** In case the employee is on deputation either from Government of Odisha or India, the above certificate should be signed by the original employer.

ODISHA JOINT ENTRANCE EXAMINATION (OJEE-2012) APPENDIX – III 'SC/ST CERTIFICATE BY BIRTH'

This	is to certify that Sri / Smt / M	iss	
Son /	daughter / wife of Shri		of
Villag	ge / Town	P.S	Tahasil
in the	e district of	of the State of	Odisha belongs to the
Cast	e / Tribe which is recognized	as Scheduled Caste / Tribe ur	nder Constitution (Scheduled Castes) Order 1950 /
the C	Constitution (Scheduled Tribe	es) Order, 1950 as amended	by the Scheduled Castes and Scheduled Tribes
`	endment) Orders Act 1976.		
			is
_			Tahasil
in the	e district of	of the	e State of Odisha.
Full	Signature of the Applicant		Signature
Rour	nd Seal of Office		Designation with seal of the office Date
Note			ace of residence of parent in Odisha. No part of the lation the certificate is liable to be rejected.
	·	Certificate of Ex-Ser	vicemen
1.	Name of the Candidate		
2.	2. Full name of employee / person		
3.	Permanent address as per	service records	
4.	Rank in Defence Service		
5.	Full name of the Candidate		
6.	Relationship of the employe	ee / person with the Candidate	
7.	Last place of posting includ	ing details of unit	
8.	Awards received if any		
			Full Signature of Station Commander / Officer Commanding / Officer-in-charge / Secretary Zilla / Rajya Sainik Board
	Signature of		Designation with Seal of Office

Date

ODISHA JOINT ENTRANCE EXAMINATION (OJEE-2012) APPENDIX – V CERTIFICATE OF AUTHENTICITY OF ORIYAS (ODIAS) BELONGING TO OUTLYING ORIYA (ODIA) SPEAKING TRACT [OL CATEGORY]

This is to certify that Mr./Ms	
Son / Daughter / Spouse of Mr./Mrs	of
Village / Town P.S	Tahasil
in the district ofof the Sta	te of whose full signature is given below is an
Oriya(Odia) and belongs to an outlying Oriya(Odia) speaking tract as defined in resolution No-13411-Gen. Dated 8 th
August ,1969, of Government of Odisha erstw	hile political & services Department (Now: G.A Department).
Full Signature of the Applicant	Signature of the officer not below the
	Rank of Tahasildar
	Date
	Designation with Seal of Office
י י י [כ	O OUTLYING ORIYA(ODIA) SPEAKING TRACT DL CATEGORY]
Son / daughter / Spouse of Mr./ Mrs	in the district of
in the state of	has/ had Oriya as M.I.L. in M.E. or
equivalent Examination conducted by	
(Name of the Board/University) from	
(Name of the Institution) in the year	
Full Signature of the Applicant	Signature of Headmaster/ Headmistress
	Date

Seal of Office

ODISHA JOINT ENTRANCE EXAMINATION (OJEE-2012) APPENDIX-VII

BOND BY THE CANDIDATE AT THE TIME OF TAKING ADMISSION INTO UNDER GRADUATE COURSE (MBBS) FOR STATE QUOTA IN GOVERNMENT MEDICAL COLLEGES

			son/daughter/wife
			in the districta
			ege (Here in after called the Principa
			on/wife of
			sent employed as
			sident of
in the district of	aged a	at present employed as	in the
Office/Department of		(hereinafter called "the sure	ty") do hereby jointly and severally bind
ourselves and our respective	e heirs, executors and administ	rators and legal representati	ve to pay to the Governor of Odisha, his
			stipend and other expenses, as the case
			Rs. 5.00 lakhs (Rupees five lakhs) only
			on undergraduate (MBBS) Course and
admissible under Rules 199	2/80 of in service candidates of	under any other rules for the	time being in force on Govt. stipend and ne same amount in the currency of tha
	cial rate of exchange between the		le same amount in the currency of tha
·	•	•	
			d admissible by the Government; AND
			ncipal obligor has agreed to execute this
			greed to execute this bond as surety or
benair or the above bourden	(Principal obligor) Shri/Smt		
			the event of the Principal obligo
			rears of service on successful learning
			signing/ duty due to any reason
			om service, an amount of Rs. 5,00 lakhs rms and conditions of the bond by no
			ment acceptance of other employmen
somewhere other than under		wing to seeking an employ	ment acceptance of other employmen
			ourse shall mean and include regula
			pointment (any one of the above type) is t order. If he/she does not join within the
			ill be required to pay Rs. 5.00 lakhs.
			ntand o d, the above written obligation shall be
			eed and declared by the principal obligo
			overnment may adopt, the Governmen
			eties jointly and severally in the form o
	isha Public Demand Recovery A		, ,
Save and except permanent	disability under no circumstant	ses I can forgo my promotion	and posting to any rank or special status
	ace of posting. I shall also be liab		
		-	
			by reason of time being granted by the
			person authorized by them (where eve vernment to sue the said principal obligo
			nri/Smto
any of them for the amount d			
•		acaditiona barain bafara	contained we have signed berounds
this day of		conditions herein before	contained we have signed hereunde
and minimum day or minimum			
		Signed and de	livered by the Principal Obligor
In Presence of Witness:			
1			

Signed and delivered by the surety above named

ACCEPTED For on behalf of The GOVERNOR OF ODISHA (Principal, Medical college)

2.

ODISHA JOINT ENTRANCE EXAMINATION (OJEE-2012) APPENDIX – VIII CERTIFICATE FROM THE HEAD OF THE INSTITUTE LAST ATTENDED

(a)	Certified that				
	(Name of the candidate in full) son/daughter of				
	(Name of the father in full)	born onwas a bonafide			
	student of this institute from	to			
	and has passed	examination in the			
	yearas per				
(b)		asted on the space provided below on this page is attested			
(b)	by me.				
	by me.				
		The candidate should			
		affix the same photograph which he/she has pasted			
		on the application OMR. The candidate has to get			
		this photograph attested			
		by the Head of the Institution last attended.			
		The official seal of the			
		head of the institute should cover part of this			
		photograph.			
Full Signature of the Applicant		Signature of Head of the Institution last attended			
		Name:			
Seal	of the Institution	Designation (with Seal of Office)			
Issue Date:	/ reference No				

N.B.: The candidate should affix the same photograph which he/she has pasted on the application OMR.

ODISHA JOINT ENTRANCE EXAMINATION (OJEE-2012) APPENDIX – IX

INCOME CERTIFICATE

Office of the				
Miscellaneous Certificate Case No		of 2012.		
This is to certify that, Sri / Smt / Miss				
Son / Wife/Daughter of		Village		
P.O		Tahasil		
In the District of		In the state of Odisha has		
an annual income Rs				
(Rupees)		
only from the sources specified below.				
SOURCE		ANNUAL INCOME		
Agriculture Land		Rs.		
Salaries		Rs.		
Business		Rs.		
Any other sources				
to be specified		Rs.		
	Total	Rs.		
This Certificate is being granted only for purpose of				
Full Signature of the Applicant		Signature of Revenue Officer Date:		
Round Seal of the Office		Designation (with Seal of Office)		

- Note:
- 1. Revenue Officer means the Chief Officer in charge of Revenue Administrative in the District, Sub-Division of Tahasil and includes an Additional District Magistrate and Additional Tahasildar.
- 2. No part of the form should be mutilated in any manner. In case of mutilation the certificate is liable to be rejected.

ODISHA JOINT ENTRANCE EXAMINATION (OJEE – 2012) APPENDIX – X

(To be deposited at the Institution/University level)

DECLARATION

Name	e of the candidate
OJEE	-2012 Roll No Rank No.
Categ	gory Stream
1.	This is to undertake that I have taken admission in the College/Institute out of my
	own accord. This allotment is based on the choice exercised by me during counselling process.
2.	I have surrendered my OJEE-2012, Odisha Rank Card. I also understand that the Rank card is no more valid and against the same, I cannot take admission in other discipline in the same college or in another college in any discipline.
3.	I understand that no change of branch or choice of college is permitted in the first year. Subject to regulation of the University and performance in first year branch change may be permitted in second year only.
4.	I understand that out of Rs
5.	We understand that, we will not claim any refund of Rs
6.	I also understand that the fee that I am paying during admission is provisional. I have to pay the balance amount if the actual fee is more than the amount I have paid or I will be refunded back the excess amount if the actual fee is less, than the amount I have already paid.
7.	I understand that I shall report to the college within the dates mentioned in the allotment letter of OJEE-2012.
8.	We declare that, we have read and understood the above provisions completely and will also abide by them.
	Further, this is to certify that, I have downloaded the correct allotment letter for admission.

Signature of the Guardian

Date:

Signature of the Candidate

Availability of Information Brochure at notified Syndicate Bank / State Bank of India / Post Offices

1. Last date of sale of Application Forms : 15.03.2012

2. Last date of receipt of Application Forms

at the Bank / Post Office from where the form is purchased : 22.03.2012

3. Last date of receipt of Application Forms

at JEE Cell by Registered Post / Speed Post / Courier Service : 22.03.2012

4. Date of despatch of Admit Card : 05.04.2012

5. Date of Examination : 06.05.2012

6. Probable Date of Declaration of Result : 25.05.2012

ADDRESS FOR COMMUNICATION

Chairman,

Odisha Joint Entrance Examination-2012

JEE Cell, Gandamunda, Khandagiri,

DIST- Khurda. Bhubaneswar-751030

Website: www.odishajee.com

E-mail: contactojee2012@gmail.com

Phone: 0674-2352456; Fax: 0674-2352457

Cost of the Brochure : Rs.550/-(Rupees Five hundred fifty only)

Ragging in any form is strictly prohibited in an Institute as per the order of Hon'ble Supreme Court of India.