# M.C.A. Admission : 2014-15MCA ADMISSION \& ENTRANCE TEST INFORMATION BROCHURE 

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## INTRODUCTION

The Department of Computer Science \& Technology conducts a 3 year post graduate MCA degree program. This course is aimed at imparting comprehensive knowledge and practice covering various aspects of computer usage in the industry. The Curriculum includes a combination of three types of courses: Computer Science, Mathematics and Management Science.
The Department has a very active placement cell and many reputed companies come for campus recruitment Majority of the students get their placement offers in the fifth semester itself. The alumni of the Department are well placed and currently hold leading positions in reputed IT organizations in the country and abroad.
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## ELIGIBILITY FOR ADMISSIONS TO MCA DEGREE AT GOA UNIVERSITY

Admission to the three year, six semester, full time course leading to the degree of "Master of Computer Applications" (MCA), is open to any Indian National satisfying all of the following conditions:

1. Graduate in any discipline with at least $55 \%$ aggregate marks at the first degree examination ( $50 \%$ for candidates in reserved category - OBC, ST, SC, PH, FF).
or
Minimum CPI must be 6.00 in the scale of 1 to 10 at the first degree examination (minimum CPI must be 5.5 in the scale of 1 to 10 for candidates in reserved category OBC, ST, SC, PH, FF).
or
For any other method of declaration of the result, the equivalent percentage of the above cases will be decided by the university after the applications have been received. The decision of the university is final.
2. Candidate must have taken mathematics as one of the subjects at HSSCE (10+2) level or at a higher level (documentary proof is essential).
3. The admission to first year of MCA program for the year 2014-15 will be strictly based on the Ranking obtained in the ENTRANCE TEST conducted by the Department of Computer Science and Technology, Goa University.

Candidates who have appeared for a degree examination and are awaiting results are also eligible to apply. In case such candidates are selected and their results are not available at the time of admission, these candidates will be given provisional admission.

Such candidates shall have to furnish the proof of fulfilling the eligibility criteria, preferably at the time of Admission but not later than $\mathbf{3 0}{ }^{\text {th }}$ June 2014, failing which, their admission shall be cancelled and the seats made available to waiting list candidates.

Students are admitted to the first year MCA programme once every year.

## Tie Breaking

The method of breaking the tie in case of candidates having an equal score in the Entrance test is as follows.

1 The candidate securing higher percentage of marks in the Mathematics component of the entrance test examination will be ranked higher. In case the scores are equal in this component, the scores obtained in the Aptitude component will be used to resolve the tie. If the tie still persists, the English component followed by the component on Computer awareness will be used.
2 In case the tie still persists across the candidates, the marks obtained at XIIth Std. will be considered.
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## AVAILABILITY AND RESERVATION OF SEATS

The MCA degree program has total 60 seats, with current distribution of seats and reservation policy*(may be subject to change) as follows:

| SC $-2 \%$ | 1 seat |
| :--- | :--- |
| ST $-12 \%$ | 7 seats |
| OBC $-19.5 \%$ | 12 seats |
| PH $-3 \%$ | 2 seats |
| FF- $1 \%$ | 1 seat |
| General | 35 seats |
|  |  |
| Other Universities | 2 seats |

*The reservation is only for candidates from Goa. Candidates applying for admission under these categories shall be REQUIRED TO SUBMIT a VALID CERTIFICATE to that effect issued by the appropriate authorities.

The seats under the GENERAL category and are available to students who have graduated with first degree from colleges affiliated to Goa University.

Seats falling vacant after exhausting respective waiting lists, under any of the above reserved categories, shall be filled from the general category as per the University rules.

## MODE OF EXAMINATION

The duration of the Entrance Test will be for a period of two hours and will consist of 90 multiple choice questions with four choices for each question. Each correctly answered question will carry THREE marks and each wrongly answered question will lead to NEGATIVE ONE mark.

Candidates have to bring their own HB pencil, eraser and black ball point pen. Calculators, mobile phones or any other material shall not be allowed in the examination hall

## Entrance Test will be scheduled in the first week of June, 2014 at the Goa University Campus

## APPLICATION FEES AND MODALITIES

The MCA prospectus along with application form will be available for purchase from the Office of the Department of Computer Science \& Technology, Goa University from 22 ${ }^{\text {nd }}$ April 2014 to $22^{\text {nd }}$ May 2014.

The same may also be downloaded from the Goa University website (www.unigoa.ac.in) when made available.

All admission related information will be made available with regular updates, on the University website www.unigoa.ac.in.

## Last date for receiving completed application forms is $22^{\text {nd }}$ May, 2014(4pm).

## Contact Details :

Admission Coordinator (2014-15),
Department of computer science \& Technology,
Goa University, Taleigao Plateau,
Goa - 403206
Phone:(0832)- 6519272/6519324/6519087
E-mail: yp@unigoa.ac.in

## ENTRANCE TEST PATTERN

There are 4 broad subject areas covered in the entrance test - Analytical Ability \& Logical Reasoning, General English, Mathematics and Computer Awareness. The Distribution of Questions will be as follows

The question paper will contain 90 multiple choice questions covering the following topics:

1. Analytical Ability \& Logical Reasoning
40 questions
2. General English
10 questions
3. Mathematics
30 questions
4. Computer Awareness
10 questions

## ELIGIBLE CANDIDATES FOR ENTRANCE TEST

After scrutiny of applications, a list of candidates who will have to appear for the entrance test, will be made available on the University website, www.unigoa.ac.in. However, the eligibility for admission to the MCA programme will be subject to the candidate fulfilling all eligibility criteria.
No separate intimation about the entrance test will be sent.
The candidates shall have to produce a valid photo identity card such as Voter's card, Driving licence, College Identity Card, Aadhar card, Passport, PAN card, for identification at the Test Centre, at the time of the entrance test.

The list of candidates selected for admission to MCA program will be displayed on the Notice Board of the Department and published on the university website.

## IMPORTANT DATES

| Date of sale of MCA prospectus and application form | -- | $\mathbf{2 2}^{\text {nd }}$ April 2014 |
| :--- | :--- | :---: |
| Last date of receipt of completed application form | --- | $\mathbf{2 2}^{\text {nd }}$ May $2014(\mathbf{4} \mathbf{~ p m})$ |
| Date and Time of Entrance Test Examination | --- | First week of June, 2014 |

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## ANNEXURE

## 1. ENTRANCE TEST SYLLABUS

## ANALYTICAL ABILITY AND LOGICAL REASONING: (40 questions)

The questions in this section will cover analytical and logical reasoning and based on Series, Relationships, Classification, Coding, Permutations and Combinations and Inferencing

GENERAL ENGLISH: (10 questions)
Questions in this section will be designed to test the candidates' general understanding of the English language. There will be questions on the following topics:
Comprehension, vocabulary, basic English Grammar (like usage of correct forms of verbs, prepositions and articles), word power, synonyms and antonyms, meaning of words and phrases, technical writing.

## MATHMATICS: (30 questions)

Set Theory: Concepts of sets - Union, Intersection, Cardinality, Elementary counting; permutations and combinations.
Probability and Statistics: Basic concepts of probability theory, Dependent and Independent events, frequency distributions, measures of central tendencies and dispersions.
Algebra: Fundamental operations in algebra, expansions, factorization, simultaneous linear / quadratic equations, indices, logarithms, arithmetic, geometric and harmonic progressions, determinants and matrices.
Coordinate Geometry: Rectangular Cartesian coordinates, distance formulae, equation of a line, and intersection of lines, pair of straight lines, equations of a circle, parabola, ellipse, and hyperbola.
Calculus: Limit of functions, continuous function, differentiation of function, tangents and normals, simple examples of maxima and minima. Integration of function by parts, by substitution and by partial fraction; definite integrals, applications of definite integrals to areas.
Vectors: Position vector, addition and subtraction of vectors, scalar and vector products and their applications to simple geometrical problems and mechanics.
Trigonometry: Simple identities, trigonometric equations properties of triangles, solution of triangles, heights and distances, general solutions of trigonometric equations
COMPUTER AWARENESS: (10 questions)
Computer Basics: Organization of a computer, Central Processing Unit (CPU), structure of instructions in CPU, input/output devices, computer memory, and back-up devices.
Data Representation: Representation of characters, integers and fractions, binary and hexadecimal representations, binary arithmetic: addition, subtraction, multiplication, division, simple arithmetic and two's complement arithmetic, floating point representation of numbers, Boolean algebra, truth tables, Venn diagrams.

## 2. SAMPLE QUESTIONS

## ANALYTICAL ABILITY AND LOGICAL REASONING

1. Unscramble the letters of words and find the odd one out.
(a) TLAES
(b) KOBO
(c) PPREA
(d) NCEPLI
2. A man works for 2 days and then rests for one day, then works for 2 days and rests for one day and so on. For everyday he works, he earns Rs. 100. How much will he earn from Monday to Saturday?
(a) Rs. 200
(b) Rs. 300
(c) Rs. 400
(d) Rs. 500
3. If RUNNER is coded by SUMMER, the code for WINTER will be :
(a) XIMSER
(b) VINTER
(c) SINVER
(d) VIOUER
4. Ram started his journey at $9.00 \mathrm{a} . \mathrm{m}$. at $8 \mathrm{~km} / \mathrm{hour}$. Shyam started from the same spot in the same
direction at $9.30 \mathrm{a} . \mathrm{m}$. at $10 \mathrm{~km} /$ hour. Shyam overtakes Ram at :
(a) $11.00 \mathrm{a} . \mathrm{m}$
(b) $12.30 \mathrm{p} . \mathrm{m}$.
(c) 12.00 noon
(d) $11.30 \mathrm{a} . \mathrm{m}$.
5. VCL, UEI, TGF, ?
(a) SJC
(b) THI
(c) SIC
(d) RHD

## MATHEMATICS

1. If $a, b, c, d, e, f$ are in A.P., then $e-c$ is equal to
(a) $2(c-a)$
(b) $2(\mathrm{~d}-\mathrm{c})$
(c) $2(\mathrm{f}-\mathrm{d})$
(d) $\mathrm{d}-\mathrm{c}$
2. The distance between the lines $5 \mathrm{x}-12 \mathrm{y}+2=0$ and $5 \mathrm{x}-12 \mathrm{y}-3=0$ is
(a) $3 / 13$
(b) $5 / 13$
(c) $7 / 13$
(d) $1 / 13$
3. A square park is surrounded by a path of uniform width 2 metres all round it. The area of the path is

288 sq. metres. The perimeter of the park is
(a) 142 m
(b) 128 m
(c) 136 m
(d) 118 m
4. Which of the following is INCORRECT?
(a) $|\mathrm{a}+\mathrm{b}|<=|\mathrm{a}|+|\mathrm{b}|$
(b) $|\mathrm{a}-\mathrm{b}|<=|\mathrm{a}|+|\mathrm{b}|$
(c) $|\mathrm{a}-\mathrm{b}|<=|\mathrm{a}|-|\mathrm{b}|$
(d) $|\mathrm{a}-\mathrm{b}|=0 \rightarrow \mathrm{a}=\mathrm{b}$
5.The value of $\cos (2 \pi / 7)+\cos (4 \pi / 7)+\cos (6 \pi / 7)$
(a) 1 (b) -1
(c) $1 / 2$
(d) $-1 / 2$

## COMPUTER AWARENESS

1. Rotational delay time is also known as
(a) Seek time
(b) Shift time
(c) Latency
(d) Access time
2. The memory which is utmost accessible to the processor is
(a) Cache memory
(b) RAM
(c) Hard disk
(d) Flash memory
3. A terabyte comprises
(a) 1024 gigabyte
(b) 1024 kilobyte
(c) 1024 megabyte
(d) 1024 byte
4. The binary equivalent of $(231)_{10}$ is
(a) 011100111
(b) 010011001
(c) 001110011
(d) 010111001
5. Which of the following is a programming language
(a) C\#
(b)Access
(c) MS-Word
(d)PowerPoint

## GENERAL ENGLISH

1. Shoot is to Gun as Eat is to....
(a) Hunger
(b) Thirst
(c) Dinner
(d) Fruit
2. Clever is to Beautiful as Sour is to....
(a) Lemon
(b) Cunning
(c) Loathing
(d) Taste
3. The passive form of the sentence "They are not going to play the match today" is
(a) The match cannot be played today
(b) The match had not been played today
(c) The match was not played today
(d) The match is not going to be played today
4. The loan will be repaid __ 12 months
(a) by
(b) for
(c) in
(d) from
5. Choose the correct meaning for the word Bizzare
(a) Breezy
(b)Very strange
(c) Depressing
(d) Bright
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