

Quantitive Aptitude

Directions—(Q. 1-5) What will come in place of the question mark (?) in the following questions ?

1. $\frac{1}{2} + \frac{1}{4} + \frac{3}{4} + \frac{2}{3} = ?$
 (A) $2\frac{1}{5}$ (B) $\frac{1}{16}$
 (C) $2\frac{1}{16}$ (D) $2\frac{1}{6}$
 (E) None of these
2. $(4)^? = 1024$
 (A) 1 (B) 2
 (C) 3 (D) 4
 (E) None of these
3. $22.5 \times 0.05 = ?$
 (A) 11.25 (B) 1.125
 (C) 22.55 (D) 112.5
 (E) None of these
4. $999 + 111 \times 0.5 = ?$
 (A) 555 (B) 500
 (C) 1054.5 (D) 1110.5
 (E) None of these
5. 40% of 250 = 50% of ?
 (A) 200 (B) 100
 (C) 150 (D) 400
 (E) None of these

Directions—(Q. 6-10) In each of the following questions a number series is given which has only one **wrong** number. You have to find out the **wrong** number.

6. 7.5, 47.5, 87.5, 157.5, 247.5, 357.5, 487.5
 (A) 357.5 (B) 87.5
 (C) 157.5 (D) 7.5
 (E) 47.5
7. 13, 16, 21, 27, 39, 52, 69
 (A) 21 (B) 39
 (C) 27 (D) 52
 (E) 16
8. 1500, 1581, 1664, 1749, 1833, 1925, 2016
 (A) 1581 (B) 1664
 (C) 1833 (D) 1925
 (E) 1749

9. 66, 91, 120, 153, 190, 233, 276
 (A) 120 (B) 233
 (C) 153 (D) 276
 (E) 190
10. 1331, 2197, 3375, 4914, 6859, 9261, 12167
 (A) 4914 (B) 6859
 (C) 9261 (D) 2197
 (E) 12167

Directions—(Q. 11-15) Each of the questions below consists of a question and two statements numbered I and II are given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and given answer—

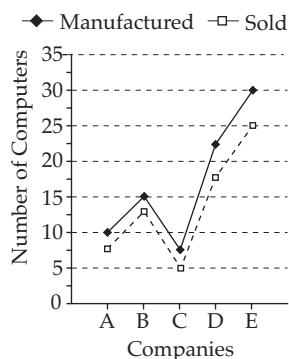
- (A) If the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.
 - (B) If the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.
 - (C) If the data either in Statement I alone or in Statement II alone are sufficient to answer the question.
 - (D) If the data in both the Statements I and II are not sufficient to answer the question.
 - (E) If the data in both the Statements I and II together are necessary to answer the question.
11. What is the ratio of the number of freshers to the number of seniors in a college ?
 I. The ratio of males and females in the college is 2 : 3.
 II. There are 1125 female freshers in the college.
 12. What is Nidhi's age ?
 I. Nidhi is 3 times younger to Rani.
 II. Surekha is twice the age of Rani and the sum of their ages is 72.
 13. What is the ratio of the total number of girls to the total number of boys in the school ?
 I. The ratio of the total number of boys to the total number of girls, last year was 4 : 5.
 II. There are 3500 students in the school out of which 60% are boys.

14. What is Mr. Mehta's present income ?
- Mr. Mehta's income increases by 10% every year.
 - His income will increase by Rs. 2,500 this year.
15. What is the speed of the bus ?
- The bus covers a distance of 80 kms. in 5 hrs.
 - The bus covers a distance of 160 kms. in 10 hrs.

Directions—(Q. 16-20) Study the following graph carefully to answer the questions that follow—

Number of Computers Manufactured and Sold by Various Companies in a Year

(Number in Lakhs)



16. What is the respective ratio of the number of Computers manufactured by Companies A and C together to the number of Computers sold by Companies A and C together ?
- (A) 4 : 5 (B) 14 : 11

- (C) 8 : 9 (D) 7 : 5
(E) None of these

17. What is the difference between the average number of Computers manufactured by all the Companies together and the average number of Computers sold by all the Companies together ?
- (A) 3500 (B) 35000
(C) 350000 (D) 3500000
(E) None of these

18. The number of Computers sold by Company B are what percent of the number of Computers manufactured by Company B ?

(Rounded off to two digits after decimal)

- (A) 83.33 (B) 120
(C) 78.83 (D) 106.54
(E) None of these

19. The number of Computers manufactured by Company D are what per cent of the number of Computers manufactured by Company E ?

- (A) 125 (B) 112.5
(C) 85 (D) 65.25
(E) 75

20. The number of Computers manufactured by Company B are **approximately** what percent of the number of Computers manufactured by all the Companies together ?

- (A) 22 (B) 18
(C) 14 (D) 26
(E) 32

Directions—(Q. 21-25) Study the table carefully to answer the questions that follow—

Percentage of Marks Obtained by Different Students in Different Subjects								
Students	Subjects							
	Hindi (150)	English (150)	Math (150)	S. Sc. (125)	Physics (75)	Chemistry (75)	Biology (75)	Sanskrit (50)
Ankita	60	64	67	59	70	65	68	70
Bakul	75	95	92	87	84	74	90	77
Chaitanya	93	71	76	74	79	62	64	82
Deepali	66	56	70	66	71	64	72	58
Gauri	62	75	62	88	78	80	74	64
Himani	58	60	64	54	70	60	72	66

21. How many marks did Himani get in all the Subjects together ?
 (A) 505 (B) 496
 (C) 525 (D) 601
 (E) None of these
22. What are the average marks obtained by all students together in Physics ?
 (A) 75.33 (B) 56.5
 (C) 64.25 (D) 48.88
 (E) None of these
23. How many Students have scored the highest marks in more than one Subject ?
 (A) Three (B) Two
 (C) One (D) None
 (E) None of these
24. Marks obtained by Ankita in Sanskrit are what per cent of marks obtained by Gauri in the same Subject ?
 (Rounded off to two digits after decimal)
 (A) 91.43 (B) 94.29
 (C) 103.13 (D) 109.38
 (E) None of these
25. Who has scored the highest marks in all the subjects together ?
 (A) Chaitanya (B) Himani
 (C) Deepali (D) Gauri
 (E) None of these

Directions—(Q. 26-30) Study the following table and answer the questions given below—

Export of Electronic Goods from India (In Rs. Crore)		
Year	Total Exports	Electronic Goods
2001	5,143	552
2002	5,404	624
2003	5,426	717
2004	5,999	653

26. **Approximately**, what per cent of the total exports were electronic goods in 2003 ?
 (A) 13% (B) 19%
 (C) 21% (D) 23%
 (E) None of these
27. The fall in electronic goods exports in 2004 from 2003 was **nearly**—
 (A) 20% (B) 15%
 (C) 9% (D) 12%
 (E) 16%
28. If the electronic goods are not exported in the year 2002, then what are the total exports of that year ?
 (A) 4770 (B) 4780
 (C) 4790 (D) 4760
 (E) None of these
29. Percentage growth of electronic goods exports in the period of 2002 to 2003 exceeded the percentage growth of the total exports over the same period **approximately** by—
 (A) 13.5 (B) 12.5
 (C) 15.5 (D) 11.5
 (E) 14.5
30. Over the 4 years period from 2001 to 2004, the electronic exports rose by **nearly**—
 (A) 16.3% (B) 15.3%
 (C) 14.3% (D) 18.3%
 (E) 20.3%
31. How much part of a day is 45 minutes ?
 (A) $\frac{1}{42}$ (B) $\frac{1}{24}$
 (C) $\frac{1}{32}$ (D) $\frac{1}{48}$
 (E) None of these
32. What is greater of two numbers whose product is 640, if the sum of the two numbers, exceeds their difference by 32 ?
 (A) 45 (B) 50
 (C) 55 (D) 40
 (E) None of these
33. Samir drove at the speed of 45 kms/hr from home to a resort. Returning over the same route, he got stuck in traffic and took an hour longer, also he could drive only at the speed of 40 kms/hr. How many kilometres did he drive each way ?
 (A) 250 kms. (B) 300 kms.
 (C) 310 kms. (D) 275 kms.
 (E) None of these
34. 20 boys and 25 girls form a group of social workers. During their membership drive, the same number of boys and girls joined the group (e.g. if 7 boys joined, 7 girls joined). How many members does the group have now, if the ratio of boys to girls is 7 : 8 ?
 (A) 75 (B) 65
 (C) 70 (D) 60
 (E) None of these

35. Vaishali spent Rs. 31,897 on the air conditioner for her home, Rs. 38,789 on buying plasma television and the remaining 23% of the total amount she had as cash with her. What was the total amount ?
 (A) Rs. 74,625 (B) Rs. 86,750
 (C) Rs. 91,800 (D) Cannot be determined
 (E) None of these
- Directions—**(Q. 36-40) Study the following information carefully to answer the questions.
 The teachers' colony has 2800 members, out of which 650 members read only English newspaper. 550 members read only Hindi newspaper and 450 members read only Marathi newspaper. The number of members reading all the 3 newspapers is 100. Members reading Hindi as well as English newspaper are 200. 400 members read Hindi as well as Marathi newspaper and 300 members read English as well as Marathi newspaper.
36. Find the difference between number of members reading English as well as Marathi newspaper and the number of members reading English as well as Hindi newspaper.
 (A) 300 (B) 200
 (C) 100 (D) 50
 (E) None of these
37. How many members read at least 2 newspapers ?
 (A) 600 (B) 800
 (C) 500 (D) 1000
 (E) None of these
38. Find the number of members reading Hindi newspaper—
 (A) 750 (B) 980
 (C) 1000 (D) 1020
 (E) None of these
39. How many members read only one newspaper?
 (A) 1560 (B) 1650
 (C) 1640 (D) 1540
 (E) None of these
40. Find the number of members reading no newspaper—
 (A) 150 (B) 460
 (C) 550 (D) 750
 (E) None of these
- Directions—**(Q. 41-45) What **approximate** value will come in place of the question mark (?) in the following questions ?
41. $(47\% \text{ of } 1442 - 36\% \text{ of } 1412) \div 63 = ?$
 (A) 4 (B) 5
 (C) 3 (D) 6
 (E) 1
42. $(\sqrt{7921} - \sqrt{2070 \cdot 25}) \times \frac{1}{4} = ?$
 (A) 11 (B) 14
 (C) 15 (D) 9
 (E) 13
43. $(341789 + 265108) \div (8936 - 3578) = ?$
 (A) 150 (B) 115
 (C) 135 (D) 100
 (E) 125
44. $29\% \text{ of } 725 = 60\% \text{ of } 315 + ?$
 (A) 28 (B) 30
 (C) 15 (D) 18
 (E) 22
45. $1595 \div 25 \times 36 \cdot 5 = ?$
 (A) 2459 (B) 2329
 (C) 2359 (D) 2429
 (E) 2349

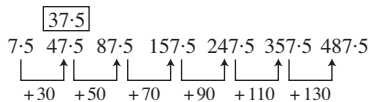
Directions—(Q. 46-50) Study the table carefully to answer the questions that follow—

Number of Students Appeared (App) and Qualified (Quld), for an Examination, in Six States Over the Years												
Years	States											
	A		B		C		D		E		F	
	App	Quld	App	Quld	App	Quld	App	Quld	App	Quld	App	Quld
2001	1567	124	1745	156	1684	150	1440	165	1564	162	1886	142
2002	1678	110	1897	178	1550	178	1390	172	1575	188	1764	186
2003	1785	156	1674	162	1754	210	1364	114	1510	214	1738	194
2004	1630	234	1986	154	1806	186	1478	138	1654	196	1644	182
2005	1805	256	2107	193	1666	198	1560	189	1690	180	1680	176
2006	1922	234	2080	245	1884	254	1672	193	1432	206	1572	222
2007	1790	198	2095	220	1728	202	1778	195	1864	216	1444	218

46. **Approximately** what is the percentage of candidates qualified over appeared from all the six states together in 2006 ?
 (A) 13 (B) 21
 (C) 27 (D) 32
 (E) 39
47. **Approximately** what is the average number of candidates qualified from State D over the given years ?
 (A) 132 (B) 116
 (C) 84 (D) 141
 (E) 167
48. Percentage of candidates qualified over appeared in 2004 is the highest for which of the following states ?
 (A) B (B) D
 (C) A (D) F
 (E) None of these
49. Percentage of candidates qualified over appeared from State B is the lowest during which of the following years ?
 (A) 2007 (B) 2004
 (C) 2001 (D) 2002
 (E) None of these
50. The number of candidates qualified from State C in 2002 and 2005 together is what per cent of the number of candidates appeared from state F in 2003 and 2004 together ?
 (Rounded off to two digits after decimal)
 (A) 10.65 (B) 12.44
 (C) 14.86 (D) 11.12
 (E) None of these

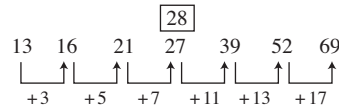
Answers with Hints

1. (D) $?$ = $\frac{1}{2} + \frac{1}{4} + \frac{3}{4} + \frac{2}{3}$
 $= \frac{6 + 3 + 9 + 8}{12} = \frac{26}{12} = 2\frac{1}{6}$
2. (E) $\therefore (4)^? = 1024 = (4)^5$
 $\therefore ? = 5$
3. (B) $?$ = $22.5 \times 0.05 = 1.125$
4. (C) $?$ = $999 + 111 \times 0.5 = 1054.5$
5. (A) $\therefore \frac{50}{100}$ of $?$ = $\frac{40}{100}$ of 250
 $\therefore ? = \frac{40 \times 250}{100} \times \frac{100}{50} = 200$
6. (E)



- \therefore Correct number = $7.5 + 30 = 37.5$
 \therefore Wrong number = 47.5

7. (C)



(Each is prime number)

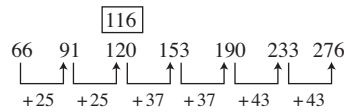
- \therefore Correct number = $21 + 7 = 28$
 \therefore Wrong number = 27

8. (C)

- $1400 + (10)^2 = 1500$
 $1500 + (9)^2 = 1581$
 $1600 + (8)^2 = 1664$
 $1700 + (7)^2 = 1749$
 $1800 + (6)^2 = 1836$ 1833
 $1900 + (5)^2 = 1925$
 $2000 + (4)^2 = 2016$

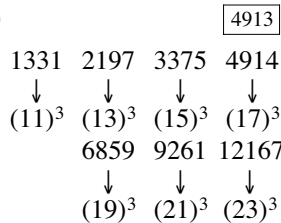
- \therefore Correct number = 1836
 \therefore Wrong number = 1833

9. (A)



- \therefore Correct number = $91 + 25 = 116$
 \therefore Wrong number = 120

10. (A)



- \therefore Wrong number = 4914.

11. (D) Data is not sufficient.

12. (E) From II the age of Rani
 $= \frac{1 \times 72}{1 + 2} = 24$ years

From I and II the age of Nidhi
 $= 24 \times \frac{1}{3} = 8$ years

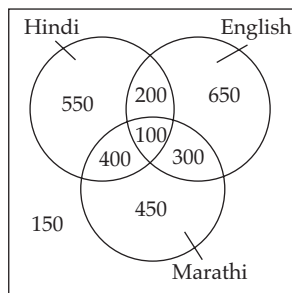
13. (B) From II, number of boys
 $= \frac{60}{100} \times 3500 = 2100$

From II, number of girls
 $= 3500 - 2100 = 1400$

- ∴ Reqd. ratio
 $= 1400 : 2100 = 2 : 3$
14. (E) From I and II Mehta's present income
 $= \frac{100 \times 2500}{10} = \text{Rs. } 25000$
15. (C) From I, speed of bus $= \frac{80}{5}$
 $= 16 \text{ km/hr.}$
 From II, speed of bus $= \frac{160}{10} = 16 \text{ km/hr.}$
16. (D) Reqd. ratio $= \frac{(10 + 7.5)}{7.5 + 5} = 7 : 5$
17. (C) Reqd. difference
 $= \frac{(10 + 15 + 7.5 + 22.5 + 30)}{5}$
 $- \frac{(7.5 + 12.5 + 5 + 17.5 + 25)}{5}$
 $= \frac{85}{5} - \frac{67.5}{5}$
 $= 17 - 13.5 = 3.5 \text{ lakh.}$
18. (A) Reqd. % $= \frac{12.5}{15} \times 100\% = 83.33\%$
19. (E) Reqd. % $= \frac{22.5}{30} \times 100\% = 75\%$
20. (B) Reqd. % $= \frac{15}{85} \times 100\% = 17.64\%$
 $\approx 18\% \text{ (App.)}$
21. (C) Reqd. number
 $= \frac{58 \times 150}{100} + \frac{60 \times 150}{100} + \frac{64 \times 150}{100}$
 $+ \frac{54 \times 125}{100} + \frac{70 \times 75}{100} + \frac{60 \times 75}{100}$
 $+ \frac{72 \times 75}{100} + \frac{66 \times 50}{100}$
 $= 87 + 90 + 96 + 67.5 + 52.5 + 45 + 54 + 33$
 $= 525$
22. (B) Reqd. average marks obtained
 $= 452 \times \frac{75}{100} \times \frac{1}{6}$
 $= 56.5$
23. (A) Three students (Bakul, Chaitanya and Gauri).
24. (D) Reqd. percentage
 $\frac{70 \times 100}{64}\% = 109.38\%$
25. (E) Total marks obtained by Ankita
 $= 90 + 96 + 100.5 + 73.75 + 52.5$
 $+ 48.75 + 51 + 35$
 $= 547.5$
 Total obtained by Bakul
 $= 112.5 + 142.5 + 138 + 108.75 + 63$
 $+ 55.5 + 67.5 + 38.5$
 $= \boxed{726.25}$
 Total marks obtained by Chaitanya
 $= 139.5 + 106.5 + 114 + 92.5$
 $+ 59.25 + 46.5 + 48 + 41$
 $= 647.25$
 Total marks obtained by Deepali
 $= 99 + 84 + 105 + 82.5 + 53.25$
 $+ 48 + 54 + 29$
 $= 554.75$
 Total marks obtained by Gauri
 $= 93 + 112.5 + 93 + 110 + 58.5$
 $+ 60.00 + 55.5 + 32$
 $= 614.5$
 Total Marks obtained by Himani
 $= 87 + 90 + 96 + 67.5 + 52.5 + 45 + 54 + 33$
 $= 525.00$
 Hence, the highest marks are scored by Bakul.
26. (A) Reqd. % $= \frac{717 \times 100}{5426}\% = 13.2\%$
 $= 13\% \text{ (App.)}$
27. (C) Reqd. % $= \frac{717 - 653}{717} \times 100\% = 8.93\%$
 $= 9 \text{ (App.)}$
28. (B) Reqd. Export $= 5404 - 624$
 $= \text{Rs. } 4780 \text{ (crore)}$
29. (E) Reqd. % growth $= \left(\frac{717 - 624}{624} \times 100\% \right)$
 $- \left(\frac{5426 - 5404}{5404} \times 100\% \right)$
 $= 14.9\% - 0.4\% = 14.5\%$
30. (D) Reqd. % increase
 $= \frac{653 - 552}{552} \times 100\% = 18.3\%$
31. (C) Reqd. part $= \frac{45}{24 \times 60} = \frac{1}{32}$

32. (D) Let the numbers be x and y
 $\therefore xy = 640$
 and $x + y = (x - y) + 32$
 $\therefore y = 16$
 and $x = 40$
 \therefore Greater number is 40.
33. (E) Let the distance each way be x km.
 $\therefore \frac{x}{40} - \frac{x}{45} = 1$
 $\Rightarrow \frac{45x - 40x}{1800} = 1$
 $\therefore x = \frac{1 \times 1800}{5} = 360$ km.
34. (A) Let the no. of increased boys and increased girls be x each
 $\therefore \frac{(20 + x)}{(25 + x)} = \frac{7}{8}$
 $\Rightarrow 160 + 8x = 175 + 7x$
 $\Rightarrow 8x - 7x = 175 - 160$
 $\therefore x = 15$
 \therefore No. of members in the group
 $= (20 + 15) + (25 + 15) = 75$
35. (C) Total amount = $\frac{100}{100 - 23} \times (31897 + 38789)$
 $= \frac{100 \times 70686}{77}$
 $= \text{Rs. } 91800$

For Q. 36 to 40 :



36. (C) Reqd. difference = $300 - 200 = 100$
37. (D) No. of members read atleast newspapers
 $= 400 + 200 + 300 + 100 = 1000$
38. (E) No. of members reading Hindi newspaper
 $= 550 + 200 + 100 + 400 = 1250$
39. (B) No. of members read only one newspaper
 $= 550 + 650 + 450 = 1650$

40. (A) No. of members reading no newspaper
 $= 2800 - (550 + 200 + 650 + 400 + 100 + 300 + 450)$
 $= 2800 - 2650 = 150$
41. (C) ? = $\left(\frac{47}{100} \text{ of } 1442 - \frac{36}{100} \text{ of } 1412\right) \div 63$
 $= (677.74 - 508.32) \div 63 = \frac{169.42}{63}$
 $= 2.689 \approx 3.$
42. (A) ? = $\left(\sqrt{7921} - \sqrt{2070.25}\right) \times \frac{1}{4}$
 $= \frac{89 - 45.5}{4} = \frac{43.5}{4} \approx 11$
43. (B) ? = $(341789 + 265108) \div (8936 - 3578)$
 $= 606897 \div 5358 = 113.27 \approx 115$
44. (E) $\therefore \frac{29}{100} \text{ of } 725 = \frac{60}{100} \text{ of } 315 + ?$
 $\Rightarrow 210.25 = 189 + ?$
 $\therefore ? = 210.25 - 189 = 21.25 \approx 22$
45. (B) ? = $1595 \div 25 \times 36.5$
 $= \frac{1595}{25} \times 36.5 = 2328.7 \approx 2329$
46. (A) Reqd. %
 $= \frac{(234 + 245 + 254 + 193 + 206 + 222)}{(1922 + 2080 + 1884 + 1672 + 1432 + 1572)} \times 100\%$
 $= \frac{1354}{10562} \times 100\%$
 $= 12.82\% \approx 13\%$
47. (E) Average
 $= \frac{(165 + 172 + 114 + 138 + 189 + 193 + 195)}{7}$
 $= \frac{1166}{7} = 166.57 \approx 167$ (App.)
48. (C) In 2004, % of candidates qualified in B
 $= \frac{154}{1986} \times 100\% = 7.75\%$
 In 2004, % of candidates qualified in D
 $= \frac{138}{1478} \times 100\% = 9.34\%$

In 2004, % of candidates qualified in A

$$= \frac{234}{1630} \times 100\% = \boxed{14.36\%}$$

In 2004, % of candidates qualified in F

$$= \frac{182}{1644} \times 100\% = 11.07\%$$

In 2004, % of candidates qualified in E

$$= \frac{196}{1654} \times 100\% = 11.85\%$$

In 2004, % of candidates qualified in C

$$= \frac{186}{1806} \times 100\% = 10.29\%$$

$$\approx 10.3\%$$

∴ It is the highest in A

49. (C) In B, % of qualified candidate in 2007

$$= \frac{220 \times 100}{2095}\% = 10.50\%$$

In B, % of qualified candidate in 2004

$$= \frac{154 \times 100}{1986}\% = 9.34\%$$

In B, % of qualified candidate in 2001

$$= \frac{156 \times 100}{1745}\% = 8.94\%$$

In B, % of qualified candidate in 2002

$$= \frac{178 \times 100}{1897}\% = 9.38\%$$

In B, % of qualified candidate in 2003

$$= \frac{162 \times 100}{1674}\% = 9.68\%$$

In B, % of qualified candidate in 2005

$$= \frac{193 \times 100}{2107}\% = 9.1599\%$$

$$= 9.16\%$$

In B, % of qualified candidate in 2006

$$= \frac{245 \times 100}{2080}\%$$

$$= 11.78\%$$

∴ It is lowest in 2001.

$$50. (D) \text{Reqd. } \% = \frac{(178 + 198)}{(1738 + 1644)} \times 100\%$$

$$= \frac{376 \times 100}{3382}\% \approx 11.12\%$$

$$= 11.18\%$$

General Socio-Economic & Banking Awareness

- RBI's open market operation transactions are carried out with a view to regulate—
 - Liquidity in the economy
 - Prices of essential commodities
 - Inflation
 - Borrowing power of the banks
 - All the above
- When more than one banks are allowing credit facilities to one party in coordination with each other under a formal arrangement, the arrangement is generally known as—
 - Participation
 - Consortium
 - Syndication
 - Multiple banking
 - None of these
- Open market operations, one of the measures taken by RBI in order to control credit expansion in the economy means —
 - Sale or purchase of Govt. securities
 - Issuance of different types of bonds
 - Auction of gold
 - To make available direct finance to borrowers
 - None of these
- The bank rate means—
 - Rate of interest charged by commercial banks from borrowers
 - Rate of interest at which commercial banks discounted bills of their borrowers
 - Rate of interest allowed by commercial banks on their deposits
 - Rate at which RBI purchases or rediscounts bills of exchange of commercial banks
 - None of these
- What is an Indian Depository Receipt ?
 - A deposit account with a Public Sector Bank
 - A depository account with any of Depositories in India
 - An instrument in the form of depository receipt created by an Indian depository against underlying equity shares of the issuing company
 - An instrument in the form of deposit receipt issued by Indian depositories
 - None of these