Q.7. What is the ratio of average production of company Q to the average production of company T in all the given years ?
(1) 24 : 25 (2) 23 : 29 (3) 26 : 27
(4) 21 : 25 (5) None of these

Q.8. The total production of company P and Q in the year 2006 is **approximately** what percent of the total production of all companies in the year 2007 ?
(1) 40 (2) 50 (3) 45 (4) 32 (5) 36

Q.9. What was the **approximate** percent decrease in production of company P from 2006 to 2007 ?
(1) 20 (2) 28 (3) 33
(4) 36 (5) 15

Q.10. What was the total production of all companies together in the year 2005 ? (in lakh tonnes)
(1) 240 (2) 245 (3) 235
(4) 255 (5) None of these

Q.11. The sum of a two-digit number and the number obtained by interchanging the digits is 110. The difference between the digits is 4. What is the number ?
(1) 73 (2) 37 (3) 65
(4) Can't be determined (5) None of these

Q.12. 2500 students appeared in an examination in which $\frac{1}{5}$ of the total students are girls and remaining are boys. 15% boys and 40% girls are failed. What is the percentage of passed students.
(1) 85 (2) 86 (3) 88
(4) 80 (5) None of these

Q.13. The area of a rectangle is 15 times of the sum of its length and breadth. If length is 40m, what is the perimeter of the rectangle ?
(1) 64m (2) 256m (3) 126m
(4) 128m (5) None of these

Q.14. Anshul purchased a chair at three-fourth of its cost price and sold it at 20% more than its purchasing price. What is the profit percent of Anshul ?
(1) 45 (2) 60 (3) 75
(4) 20 (5) None of these

Q.15. Manish is 15 years elder to Nikunj and after 5 years, the Nikunj's age will be 10 years. What is the present age of Manish ?
(1) 20 years (2) 25 years (3) 15 years
(4) 12 years (5) None of these

Q.16. If 25% of two-third of a number is 10, what is the number ?
(1) 40 (2) 20 (3) 60
(4) 30 (5) None of these

Q.17. .What value will come in place of question mark (?) in the following question ?

$$\sqrt{\frac{?}{196}} = \frac{32}{56}$$

(1) 84 (2) 64 (3) 74
(4) 94 (5) None of these

Q.18. Which of the following set of fractions is in descending order ?
(1) $\frac{11}{13}, \frac{7}{9}, \frac{6}{8}, \frac{5}{6}$ (2) $\frac{6}{8}, \frac{7}{9}, \frac{5}{6}, \frac{11}{13}$
(3) $\frac{11}{13}, \frac{5}{6}, \frac{7}{9}, \frac{6}{8}$ (4) $\frac{11}{13}, \frac{7}{9}, \frac{6}{8}, \frac{5}{6}$
(5) None of these

Q.19. The circumference of a circle is 132 m. What is the area of the circle ?
(1) 66 m^2 (2) 693 m^2 (3) 1268 m^2
(4) 1384 m^2 (5) None of these

Q.20. The population of a city at present is 80000. If it increase by 5% per year, what will be the population after 3 years ?
(1) 88200 (2) 84000 (3) 92610
(4) 86610 (5) None of these

Q.21-25. What value will come in place of question mark (?) in number-series given below-

Q.21. 276, ?, 414, 1242, 621, 1863
(1) 552 (2) 138 (3) 828
(4) 107 (5) None of these

Q.22. 204, 196, 223, 159, 284, ?
(1) 126 (2) 68 (3) 272
(4) 142 (5) None of these

Q.23. 125, 63, 64, 97.5, ?, 495
(1) 198 (2) 197 (3) 196
(4) 199 (5) None of these

Q.24. 16, 15, 26, 69, 260, ?
(1) 520 (2) 1300 (3) 1040
(4) 1275 (5) None of these

Q.25. 144, 73, 38.5, 22.25, ?, 12.5625
(1) 18.125 (2) 14.225 (3) 12.725
(4) 15.125 (5) None of these

Q.26-30. Read the following table carefully and answer the questions given below-
Production (in lakh tonnes)

Years	Wheat	Rice	Maize	Other	Total
2002	860	250	150	500	1760
2003	680	300	230	460	1670
2004	560	250	280	450	1540
2005	500	200	250	400	1350
2006	580	160	200	300	1240
Total	3180	1160	1110	2110	7560

Q.26. What is the **approximate** percent of wheat in the total production from the year 2002 to 2006 ?
(1) 46 (2) 35 (3) 52
(4) 58 (5) 42

Q.27. What was the **approximate** percent increase in production of maize in the year 2004 from previous year ?
(1) 26 (2) 18 (3) 30
(4) 15 (5) 22

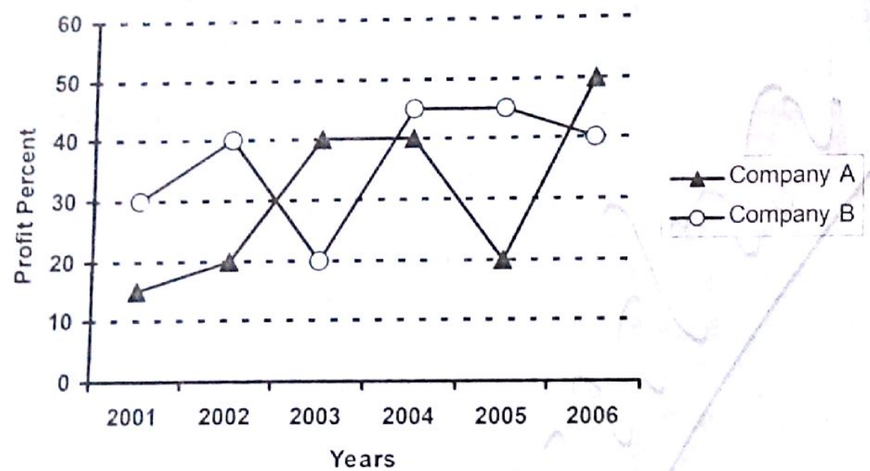
Q.28. What was the percentage decrease in production of rice from the year 2002 to 2006 ?
(1) 38 (2) 26 (3) 36
(4) 30 (5) None of these

Q.29. The total production of maize in the year 2003 and 2004 together is what percent of the total production of wheat in both the same years ? (upto two decimal places)
(1) 42.74 (2) 40.28 (3) 44.16
(4) 48.47 (5) None of these

Q.30. What is the average production of rice from 2003 to 2006 ? (in lakh tonnes)
(1) 180 (2) 177 (3) 193
(4) 186 (5) None of these

Q.31-35. Read the following graph carefully and answer the questions given below.

Profit percent earned by company A and B over the years



Q.31. If income of company A in the year 2002 was Rs. 20 cr. What is the **approximate** expenditure of the company in the same year ?

(1) Rs. 12 cr (2) Rs. 15 cr. (3) Rs. 18 cr.
(4) Rs. 16 cr. (5) Rs. 19 cr.

Q.32. If income of company B in the year 2006 is Rs. 28 cr. what is the profit of the company in the same year ?

(1) Rs. 6 cr. (2) Rs. 8 cr. (3) Rs. 8.4 cr.
(4) Rs. 10 cr. (5) None of these

Q.33. In which year the ratio of profit percent earned by company A to the profit percent earned by company B was maximum ?

(1) 2004 (2) 2005 (3) 2002
(4) 2003 (5) None of these

Q.34. In which year the average of the profit percent of the both companies was the maximum ?

(1) 2006 (2) 2005 (3) 2004
(4) 2003 (5) None of these

Q.35. If income of company A in the year 2004 and 2005 are equal, what is the respective ratio of expenditure of the same company in the same years ?

(1) 5 : 6 (2) 7 : 5 (3) 6 : 7 (4) 2 : 3 (5) None of these

Q.36-40. In each of the following questions, two equations are given. You have to solve them and

Give answer (1) If $x < y$
Give answer (2) If $x \leq y$
Give answer (3) If $x \geq y$
Give answer (4) If $x > y$
Give answer (5) $x = y$ or relationship can't be established.

Q.36. I. $x = \frac{5}{4}y$ II. $\frac{y}{2} = \frac{-9}{4}$

Q.37. I. $x^2 = 1849$ II. $y = \sqrt[3]{79507}$

Q.38. I. $2x + 3y = 7$ II. $4x+5y = 19$

Q.39. I. $x^2 + 16x + 48 = 0$ II. $y^2 + 14y + 33 = 0$

Q.40. I. $x^2 + 23x + 42 = 0$ II. $y^2 + 16y + 28 = 0$

Q.41-45. Read the following information carefully and answer the questions given below-

1000 students appeared in an examination. Out of which 275 students passed in physics, 320 students passed in chemistry and 350 students passed in mathematics. 84 students passed in both chemistry and mathematics, 60 students passed in both physics and mathematics, 50 students passed in both physics and chemistry and 34 students passed in all the three subjects.

Q.41. What is the percentage of students who did not pass ?

(1) 28.3 (2) 21.5 (3) 28.28
(4) 34.2 (5) None of these

Q.42. What is the percentage of students who passed in only one subject ?

(1) 52 (2) 66 (3) 69.3
(4) 65.9 (5) None of these

Q.43. What is the number of students who passed in at least two subjects ?

(1) 126 (2) 127 (3) 128
(4) 129 (5) None of these

Q.44. The number of students passed in all the three subjects is what percent of the number of students passed only in two subjects ?

(1) 36.95 (2) 26.98 (3) 32.14
(4) 34.26 (5) None of these

Q.45. What is the ratio of students passed in physics and mathematics to the number of students passed in physics and chemistry ?

(1) 5 : 6 (2) 2 : 3 (3) 6 : 5
(4) 3 : 2 (5) None of these

Q.46-50. The questions given below contain two statements giving certain data. You have to decide whether the data given in the statements are sufficient for answering the question ? Mark answer-

(1) If statement **I** alone is **sufficient** but statement II alone is not sufficient.
(2) If statement **II** alone is **sufficient** but statement I alone is not sufficient.
(3) If **each** statement **alone** (either I or II) is **sufficient**.
(4) If statement I and II together are **not sufficient**.
(5) If **both** statements together are **sufficient**, but neither statement alone is sufficient.

Q.46. What is the total number of students in a college ?

I. 75% of the total number of students are boys.
II. The ratio of number of girls to the number of boys is 1 : 3.

Q.47. What is the area of the square ?

I. The length of the diagonal of the square is 60 cm.
II. The perimeter of the square is equal to the circumference of the circle.

Q.48. In how many days can 4 women complete a work ?

I. 4 men and 4 women can complete the same work in 12 days.
II. 10 women can complete the same work in 16 days.

Q.49. What is the speed of boat in still water ?

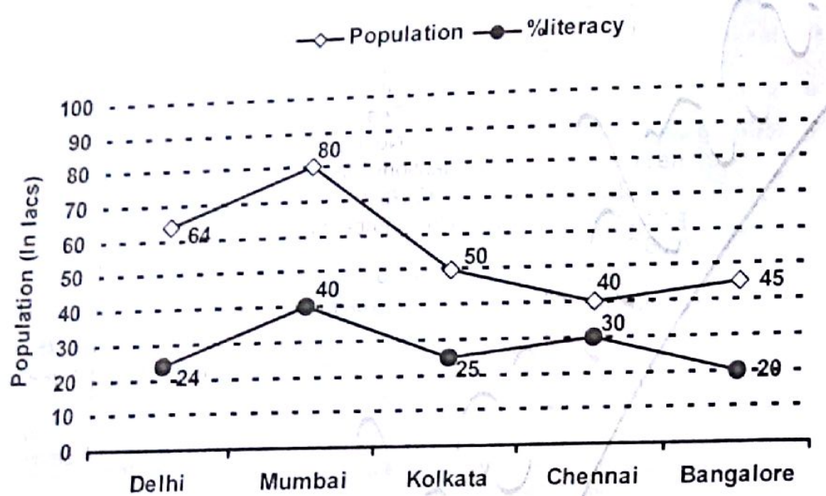
I. The boat covers downstream a distance of 24 km in 4 hrs.
II. The boat takes 6 hrs to cover the 24 km upstream.

Q.50. What is the rate of compound interest ?

I. The amount is invested for 3 years.
II. The interest earned is Rs. 1369.

TEST - 2
QUANTITATIVE APTITUDE

Q.1-5. Read the following graph carefully and answer the questions given below :
Total population of different cities and % litracy among them



Q.1. What is the total number of illiterate people in Delhi and Kolkata ?
(1) 82.36 lacs (2) 81.48 lacs (3) 86.14 lacs
(4) 80.24 lacs (5) None of these

Q.2. What is the respective ratio of number of literate people in Kolkata and Chennai ?
(1) 25 : 18 (2) 23 : 16 (3) 25 : 24 (4) 27 : 17 (5) None of these

Q.3. What is the number of literate people in Bangalore ?
(1) 12 lacs (2) 32 lacs (3) 12.5 lacs (4) 28 lacs (5) None of these

Q.4. The number of illiterate people in Chennai is what percent less than that of illiterate people in Kolkata ?
(1) 30 (2) 34 (3) 25 (4) 39 (5) 46

Q.5. What is the total number of literate people in Mumbai and that of illiterate people in Bangalore ?
(1) 60 lacs (2) 62 lacs (3) 65.8 lacs (4) 68 lacs (5) None of these

Q.6-10. What value will come in place of question mark (?) in the questions given below ?

Q.6. $\sqrt{23409} + \frac{2}{3}$ of 234 = ?
(1) 307 (2) 311 (3) 302 (4) 300 (5) 309

Q.7. 4343 ÷ 202 +201 = ?
(1) 222.5 (2) 221.5 (3) 225.2 (4) 223.6 (5) None of these

Q.8. $\frac{2}{3} \times \frac{4}{6}$ of $\frac{9}{16} \times \frac{5}{8} = \frac{5}{?}$
(1) 32 (2) 8 (3) 5 (4) 0 (5) None of these

Q.9. 637.123+1413.241–373.181+6342.2316=?
(1) 7992.8046 (2) 8010.0243 (3) 8019.4146
(4) 8310.1819 (5) None of these

Q.10. 25% of 640 + ? % of 200 = 225
(1) 30.5 (2) 32.5 (3) 48 (4) 65 (5) None of these

Q.11-15. Read the following table carefully and answer the questions given below :
Number of questions asked in different subjects during different years in an examination of Bank.

Subjects / Years	Quantitative Aptitude	Reasoning	General Studies	English	Marketing
2003	45	50	48	46	49
2004	40	45	50	47	48
2005	32	42	42	50	45
2006	28	36	32	50	39
2007	44	35	50	43	38
2008	50	30	35	41	44

Q.11. The average number of questions asked from which subject is the minimum ?
(1) Quantitative Aptitude (2) Reasoning (3) General Studies
(4) Marketing (5) None of these

Q.12. In which year the percentage of the questions asked from Reasoning is maximum ?
(1) 2004 (2) 2005 (3) 2006 (4) 2003 (5) None of these

Q.13. What was the percentage decrease in the number of questions asked from General Studies from year 2005 to 2006 ?
(1) 24 (2) 30 (3) 19 (4) 34 (5) 50

Q.14. What is the average number of questions asked from Marketing ?
(1) 42 (2) 48 (3) 39 (4) 53 (5) 44

Q.15. The total number of questions asked from Reasoning and English in the year 2006 is what percent that from General studies and Marketing in the year 2008 ?
(1) 102 (2) 113 (3) 109 (4) 105 (5) 118

Q.16-20. What value will come in place of question mark (?) in the questions given below ?

Q.16. 4, 9, 15, 27.5, 59, ?
(1) 150.5 (2) 150 (3) 148.5 (4) 140 (5) None of these

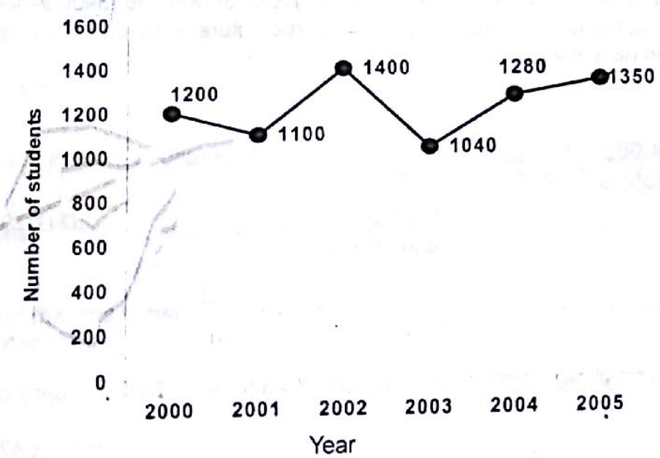
Q.17. 3, 10, 32, 111, 460, 2315, ?
(1) 13903 (2) 13904 (3) 13902 (4) 13908 (5) None of these

Q.18. 8, 12, 30, 105, ?, 2598.75
(1) 471.5 (2) 472.5 (3) 473.5 (4) 470.5 (5) None of these

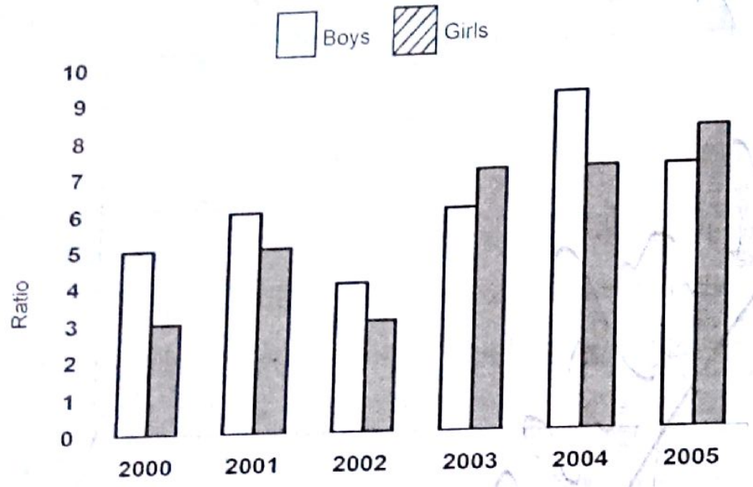
Q.19. 17, 27, 49, 83, 129, ?
(1) 186 (2) 185 (3) 180 (4) 182 (5) None of these

Q.20. 573, 357, 232, 168, 141, ?
(1) 135 (2) 132 (3) 134 (4) 133 (5) None of these

Q.21-25. Read the following graph carefully and answer the questions given below :
Number of students in a college in different years



Ratio of boys and girls in the college



Q.21. What is the respective ratio of number of boys in the year 2003 and that of girls in the year 2005 ?
(1) 12 : 13 (2) 13 : 14 (3) 11 : 12
(4) 11 : 13 (5) None of these

Q.22. What is the average number of girls in all the years ?
(1) 562 (2) 568 (3) 560
(4) 565 (5) None of these

Q.23. What is the difference between the number of boys and girls in the year 2004 ?
(1) 200 (2) 160 (3) 180
(4) 210 (5) None of these

Q.24. What is the total number of boys in the year 2001, 2002, 2004 and 2005 ?
(1) 2520 (2) 2680 (3) 2810
(4) 2720 (5) None of these

Q.25. In which two years the number of girls is equal ?
(1) 2000 and 2001 (2) 2000 and 2002 (3) 2003 and 2004
(4) 2001 and 2002 (5) None of these

Q.26. The monthly income and monthly expenditure of a person is ₹ 13500/- and ₹ 9000/- respectively. In the next year, his income is increased by 14% and expenditure is increased by 7%. What is percentage increase in his saving ?
(1) 7% (2) 21% (3) 28%
(4) 35% (5) None of these

Q.27. A, B and C invest ₹ 24,000/-, ₹ 32,000/-, and ₹ 48,000/-, for 4 months, 5 months and 6 months respectively. If total profit is ₹ 7,650/-, what is B's share ?
(1) ₹ 2400/- (2) ₹ 2250/- (3) ₹ 2960/-
(4) ₹ 1890/- (5) None of these

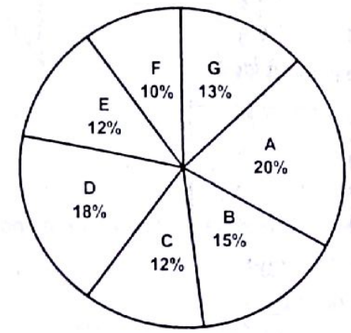
Q.28. ₹ 12,540/- is divided among A, B and C in such a way that A gets $\frac{3}{7}$ part of total amount of B and C and B gets $\frac{2}{9}$ part of total amount of A and C. What is the difference between parts of A and B?
(1) ₹ 1482/- (2) ₹ 2736/- (3) ₹ 4218/-
(4) ₹ 4320/- (5) None of these

Q.29. The perimeters of two squares are 24 cm and 32 cm. respectively. What is the perimeter of a third square whose area is equal to the sum of area of these two squares ?
(1) 45 cm. (2) 40 cm. (3) 32 cm. (4) 48 cm. (5) None of these

Q.30. In how many different ways can the letters of the word 'ASSISTANCE' be arranged ?
(1) 604800 (2) 1814400 (3) 1209600 (4) 151200 (5) None of these

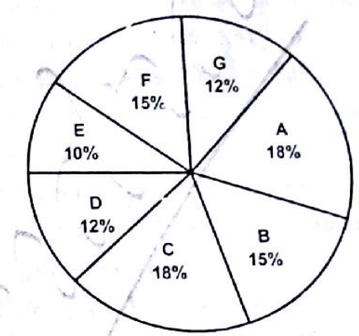
Q.31-35. Read the following pie-chart carefully and answer the questions given below :
Number of employees of different grade in a cotton mill in the year 2007 and 2008

Year 2007



Total number of employees = 7300

Year 2008



Total number of employees = 7900

Q.31. What is the respective ratio of number of employees of grade E in the year 2007 and that of grade G in the year 2008 ?
(1) 70 : 73 (2) 75 : 79 (3) 73 : 79
(4) 71 : 73 (5) None of these

Q.32. What was percentage increase in number of employees of grade C from the year 2007 to 2008?
(1) 57 (2) 68 (3) 50
(4) 54 (5) 62

Q.33. What is the sum of total number of employees of grade B and grade D in the year 2007 and that of grade E and grade F in the year 2008 ?
(1) 4384 (2) 4245 (3) 4246
(4) 4422 (5) None of these

Q.34. The total number of employees of grade C and grade D in the year 2008 is what percent that of grade A and grade F in the year 2007 ?
(1) 88 (2) 108 (3) 96
(4) 85 (5) 80

Q.35. What is the difference between the number of employees of grade F in the year 2007 and 2008 ?
(1) 450 (2) 452 (3) 458
(4) 455 (5) None of these

Q.36-40. The question given below contain two statements giving certain data. You have to decide whether the data given in the statements are sufficient for answering the question ? Mark answer-
(1) If statement **I** alone is **sufficient** but statement II alone is not sufficient.
(2) If statement **II** alone is **sufficient** but statement I alone is not sufficient.
(3) If **each** statement **alone** (either I or II) is **sufficient**.
(4) If statement I and II together are **not sufficient**.
(5) If **both** statement together are **sufficient**, but neither statement alone is sufficient.

Q.36. What is the speed of Train X in km/hr. ?
(I) The length of train X is twice that of train Y and speed of train Y is 100 m/sec.
(II) Train X crosses train Y in 10 seconds. The length of train X is 100 m.

Q.37. What was the total income of A in the year 2001 ?

(I) The total income of A in the year 1998, 1999, 2000 and 2001 was ₹ 1 crore.

(II) Income of A is increased by 25% in successive year.

Q.38. A student got 430 marks in five subjects. How many marks did he get in English ?

(I) His average marks in other four subjects is 84.

(II) His marks in English is 8 more than his average marks in five subject.

Q.39. What will be mother's age after 15 years ?

(I) The ratio of ages of mother and daughter is 5 : 1

(II) After 10 years daughter's age will be 10 years less mother's age.

Q.40. ₹ 1521/- is divided among three persons A, B and C. What is B's share ?

(I) B gets ₹ 54 more than the average share.

(II) A and C gets ₹ 399 more than what B gets.

Q.41-45. In each of the following questions, two equations are given. You have to solve them and

Give answer (1) If x>y **Give answer (2)** If x≥y

Give answer (3) If x<y **Give answer (4)** If x≤y

Give answer (5) If x=y or relationship can not be established

Q.41. I. $34x^2 + 11x = 3$ II. $51y^2 - 77y + 12 = 0$

Q.42. I. $2x^5 (x^{-2}) = 128$ II. $\frac{1}{3}y^9 = \frac{1}{24}y^{11}$

Q.43. I. $7x + 10y = 34$ II. $11x + 13y = 48$

Q.44. I. $x + \frac{1}{2} = 3$ II. $y + 13 \div 2 = 6(y - 1)$

Q.45. I. $3x^2 - 16x + 21 = 0$ II. $6y^2 + 25y + 21 = 0$

Q.46-50. What **approximate** value will come in place of question mark (?) in the questions given below ?

Q.46. 404.24÷4.04+123.78–?=99.84

(1) 110 (2) 130 (3) 120 (4) 115 (5) 125

Q.47. 12.34×14.45+123.78+?=699.89

(1) 450 (2) 400 (3) 300 (4) 325 (5) 490

Q.48. $\sqrt{1156.04} \times 17.97 + ? \div 23 = 630.97$

(1) 300 (2) 380 (3) 350 (4) 440 (5) 450

Q.49. 4168+3721×37=?

(1) 18000 (2) 141850 (3) 17800 (4) 17750 (5) 17850

Q.50. 12345÷42+?=145÷0.14

(1) 735 (2) 725 (3) 740 (4) 745 (5) 750

TEST-3
QUANTITATIVE APTITUDE

Q.1-5. Find the value of question mark (?) in the following questions given below:-

Q.1. $66\frac{2}{3}\%$ of 54 + $33\frac{1}{3}\%$ of 210 = ?

(1) 104 (2) 106 (3) 108 (4) 110 (5) None of these

Q.2. $\frac{1}{164} \div \frac{84}{?} = \frac{1}{16} \times \frac{1}{287}$

(1) 3 (2) 4 (3) 5 (4) 6 (5) None of these

Q.3. $\frac{19}{23} \div \frac{361}{529} = 2\frac{3}{19} - ?$

(1) $\frac{15}{19}$ (2) $\frac{16}{19}$ (3) $\frac{17}{19}$ (4) $\frac{18}{19}$ (5) None of these

Q.4. 35% of 70 + $\sqrt{256}$ = 2268 ÷ ?

(1) 56 (2) 58 (3) 46 (4) 48 (5) None of these

Q.5. 3864 + 1278 +4086 = ? + 3114

(1) 6418 (2) 6218 (3) 6154 (4) 6114 (5) None of these

Q.6-10. What **approximate** value will come in place of question mark (?) in the following questions?

Q.6. 39.86 ÷ 0.04 = ? – 398.68

(1) 1400 (2) 1500 (3) 1450 (4) 1350 (5) 1300

Q.7. $\sqrt{21035}$ × ? = 3624 × 25.04

(1) 675 (2) 650 (3) 575 (4) 600 (5) 625

Q.8. 64% of 99.08 + 18.96 = $\frac{839.6 \times 101}{?}$

(1) 1100 (2) 900 (3) 1000 (4) 1200 (5) 1300

Q.9. 295.06 + 868.55 + 428.04 – 186.72 = ?

(1) 1250 (2) 1300 (3) 1365 (4) 1405 (5) 1465

Q.10. $\frac{5}{7} \times \frac{42}{201} \times \frac{?}{4} = 7$

(1) 216 (2) 188 (3) 166 (4) 140 (5) 256

Q.11-15. What will come in place of question mark (?) in the following number series?

Q.11. 7 48 286 1427 ? 17107

(1) 5504 (2) 5604 (3) 5704 (4) 5804 (5) None of these

Q.12. 4 9 20 43 90 ?

(1) 185 (2) 195 (3) 190 (4) 186 (5) None of these

Q.13. 48 60 90 157.5 ? 708.75

(1) 315.50 (2) 305 (3) 300 (4) 315 (5) None of these

Q.14. 3 6 19 ? 393 2362

(1) 76 (2) 78 (3) 77 (4) 74 (5) None of these

Q.15. 8 9 22 75 ? 1605

(1) 316 (2) 318 (3) 306
(4) 320 (5) None of these

Q.16-20. In each of the following questions, two equations are given. You have to solve them and

Give answer (1) If x>y **Give answer (2)** If x≥y
Give answer (3) If x<y **Give answer (4)** If x≤y
Give answer (5) If x=y or relationship can not be established

Q.16. I. $x^2 - \frac{1}{4} = 0$ II. $2y^2 + 7y + 3 = 0$

Q.17. I. $3x + \frac{y}{8} = 3$ II. $6x + y = 9$

Q.18. I. $x(x^{-1}) = (x^{-1})$ II. $y^2 = 4(y^4)$

Q.19. I. $2x^2 = 23x - 63$ II. $2y(y - 4) = y$

Q.20. I. $\frac{8}{21}x - \frac{2}{7} = 0$ II. $16y^2 - 24y + 9 = 0$

Q.21. The sum of four numbers is 64. If you add 3 to the first number, 3 is subtracted from the second number, the third is multiplied by 3 and the fourth is divided by 3, then all the results are equal. What is the difference between the largest and the smallest number?

(1) 32 (2) 27 (3) 21
(4) Can't be determined (5) None of these

Q.22. Sumitra has an average of 56% on her first 7 examinations. How much marks should she make on her eighth examination to obtain an average of 60% ?

(1) 85% (2) 80% (3) 90%
(4) Can't be determined (5) None of these

Q.23. The Difference between the digits of a two-digit number is one-ninth of the difference between the original number and the number obtained by interchanging the positions of the digits. What is the sum of the digits of the number?

(1) 5 (2) 14 (3) 12
(4) Data Inadequate (5) None of these

Q.24. The denominator of a fraction is 2 more than thrice its numerator. If the numerator as well as denominator is increased by one, the fraction becomes $\frac{1}{3}$, what was the original fraction?

(1) $\frac{4}{13}$ (2) $\frac{3}{11}$ (3) $\frac{5}{13}$
(4) $\frac{5}{11}$ (5) Can't be determined

Q.25. What would be the length of the diagonal of a square plot whose area is equal to the area of a rectangular plot of 50 m length and 40.5 m width?

(1) $45\sqrt{2}$ cm. (2) 45 cm. (3) 50 cm.
(4) $50\sqrt{2}$ cm. (5) None of these

Q.26. Ajay invested an amount of Rs. 12000 at the simple interest rate of 10 p.c.p.a. and another amount at the simple interest rate of 20 p.c.p.a. The total interest earned at the end of one year on the total amount invested became 14 p.c.p.a. Find the total amount invested?

(1) Rs. 22000 (2) Rs. 24000 (3) Rs. 18000
(4) Rs. 20000 (5) None of these

Q.27. Amitabh gave 40 percent of the amount he had to Subhash. Subhash in turn gave one-fourth of what he received from Amitabh to Pooja. After paying Rs. 200 to the entertainment out of the amount she got from Amitabh, Pooja now has Rs. 600 left with her. How much amount did Amitabh have?

(1) Rs. 6000 (2) Rs. 8000 (3) Rs. 10,000
(4) Rs. 12000 (5) None of these

Q.28. Train A leaves Mumbai Central for Lucknow at 11 am. running at a speed of 60 km/hr. Train B leaves Mumbai Central for Lucknow by tha same route at 2 pm. on the same day, running at the speed of 72 km/hr. At what time will the two Trains meet each other?

(1) 2 am on the next day (2) 5 am on the next day
(3) 5 pm on the next day (4) 2 pm on the next day
(5) None of these

Q.29. 765 chairs are to be arranged in the columns in such a way that the number of chairs in each column should be equal to the total number of columns. How many chairs will be excluded to make this arrangement possible?

(1) 12 (2) 24 (3) 36
(4) 48 (5) None of these

Q.30. Suresh can complete a job in 15 hours, Ashutosh alone can complete the same job in 10 hours. Suresh works for 9 hours and then the remaining job is completed by Ashutosh. How many hours will it take Ashutosh to complete the remaining job alone?

(1) 4 (2) 5 (3) 6
(4) 12 (5) None of these

Q.31-35. Each of these questions consists of a question followed by informations in three statements. You have to study the question and the statements and decide that information in which of the statement(s) is/are necessary to answer the question.

Q.31. What was the profit earned on the cost price by Mohit on selling an article?

(A) He got 15% concession on labelled price in buying that article.
(B) He sold it for Rs. 3060.
(C) He earned a profit of 2% on labelled price.

(1) Only A and B (2) Only B and C
(3) Only either A or C and B (4) Only A and C
(5) None of these

Q.32. What is the area of right angled trangle?

(A) The perimeter of a triangle is 30 cm.
(B) The ratio between the base and the height of the triangle is 5:12.
(C) The area of the triangle is equal to the area of a rectangle of length 10 cm.

(1) Only B and C (2) Only A and B
(3) Only either A or B and C (4) Only A and C
(5) None of these

Q.33. What is the difference between two numbers X and Y?

(A) X is 20 percent more than another number Z.
(B) Y is 20 percent less than Z.
(C) The sum of Y and Z is 72.

(1) Only A and B (2) Only A and C (3) All A, B and C
(4) Any two (5) None of these

.34. At what time will the train reach city A from city B?

(A) The train crosses another train of length of 200 meters and running in opposite direction in 15 sec.

(B) The train leaves city B at 18:15 pm for city A, situated at a distance of 560 kms.

(C) The 300 m long train crosses a signal pole in 10 secs.

(1) Only A (2) Only B (3) Only C
(4) Only B and C (5) All A, B and C

Q.35. What is the total compound interest earned at the end of three years?

(A) Simple Interest earned on that amount at the same rate and for the same period is Rs. 4500.

(B) The rate of interest is 10 p.c.p.a.

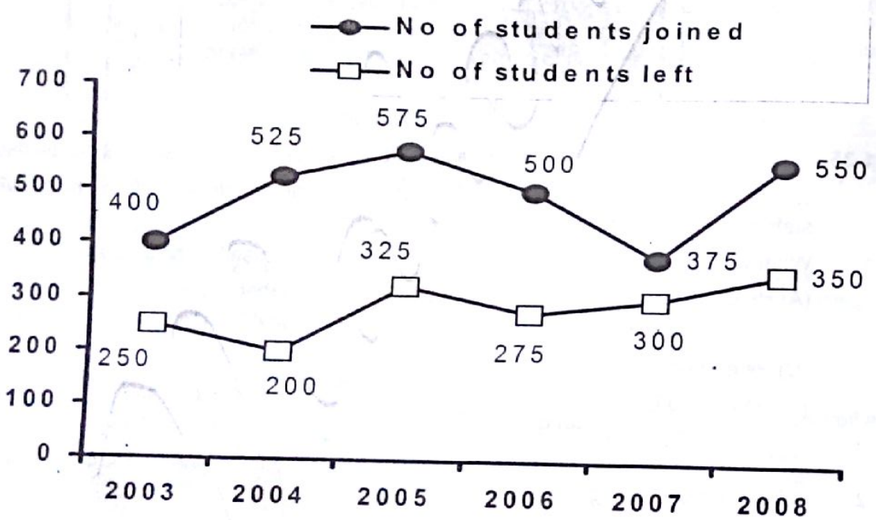
(C) Compound Interest for three years is more than the simple interest for that period by Rs. 465

(1) Only A and B (2) Only B and C (3) Only A and C
(4) Either A or C and B (5) Either A or C only

Q.36-40. Study the following graph carefully and answer the questions given below:-

The number of students who joined and left the school in the beginning of year for six years from 2003 to 2008.

Initial Strength of the school is 2000.



Q.36. What was the increase in strength of the school from 2004 to 2005?

(1) 225 (2) 250 (3) 275
(4) 200 (5) None of these

Q.37. For which of the following year, the percentage rise/fall in the number of students left from the previous year is the hightest?

(1) 2003 (2) 2004 (3) 2006
(4) 2005 (5) None of these

Q.38. How many students were there in the school during the year 2006?

(1) 2950 (2) 2900 (3) 2800
(4) 2850 (5) None of these

Q.39. During which of the following pairs of years, the strength of the school is equal?

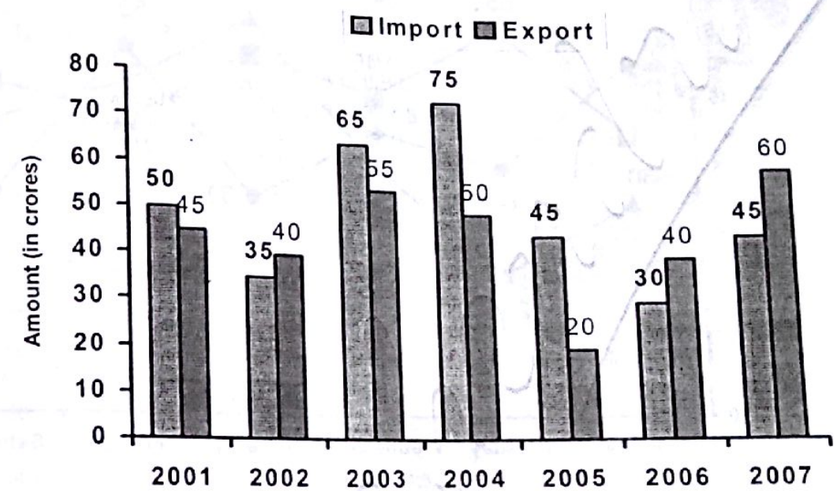
(1) 2004-05 (2) 2003-04 (3) 2005-06
(4) 2006-07 (5) None

Q.40. The number of students in 2006 is **approximately** what percent of the number of student in 2004?

(1) 91% (2) 100% (3) 108%
(4) 115% (5) 125%

Q.41-45. Study the following graph carefully to answer the questions given below it.

Import and Export of spare parts by an automobile company over the given years.



Q.41. During which year the percentage rise/fall in imports from the previous year is the highest ?

(1) 2001 (2) 2004 (3) 2005
(4) 2007 (5) None of these

Q.42. What is the ratio of total imports to total exports for all the given years together?

(1) 61:57 (2) 61:69 (3) 69:62
(4) 67:63 (5) None of these

Q.43. The total exports in the year 2003, 2004 and 2005 together are what percent of the total imports during the same period? (Rounded upto two digits after decimal)

(1) 67.56% (2) 62.86% (3) 63.42%
(4) 68.12% (5) None of these

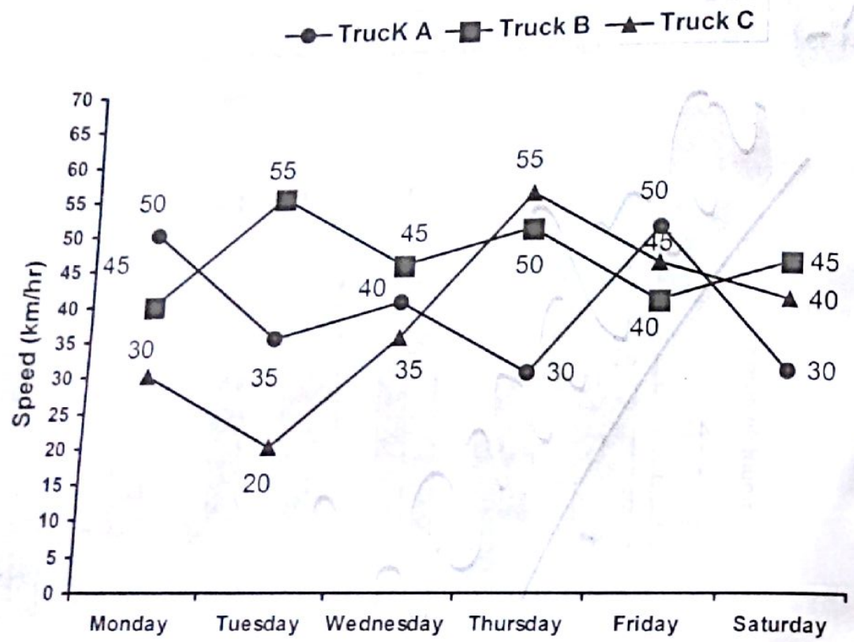
Q.44. Which of the following pairs of years and the percent increase in the export over the previous year is correctly matched?

(1) 2005-06, 75% (2) 2002-03, 35% (3) 2006-07, 40%
(4) 2005-06, 100% (5) None of these

Q.45. During which year the percentage rise/fall in exports from the previous year is the highest?

(1) 2001 (2) 2002 (3) 2004
(4) 2006 (5) 2005

Speed (in km/hr) of three trucks on different routes on different days of the week.



Q.46. If the distance travelled by Truck A and Truck B on friday were the same, what was the ratio of the time taken by Truck A to that by Truck B to travel that distance?

(1) 5:4 (2) 4:5 (3) 6:5
(4) 5:6 (5) None of these

Q.47. If the distance travelled by Truck C on Wednesday was 986 km, what was the time taken by it to travel that distance?

(1) $26\frac{6}{35}$ hrs (2) $25\frac{4}{35}$ hrs (3) $22\frac{3}{35}$ hrs
(4) $23\frac{3}{35}$ hrs (5) None of these

Q.48. What is the average speed of Truck A in metre/second for all the days together?

(1) 18 m/sec (2) 20 m/sec (3) 5 m/sec
(4) 10 m/sec (5) 15 m/sec

Q.49. Average speed of Truck C is **approximately** what percent of average speed of Truck B over the days?

(1) 70% (2) 80% (3) 60%
(4) 90% (5) 50%

Q.50. What is the percent increase in the speed of Truck C on Wednesday from the previous day?

(1) 25% (2) 50% (3) 75%
(4) 100% (5) None of these

TEST - 4
QUANTITATIVE APTITUDE

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

Q.1. 9067+2065–8500+2048 = ?

(1) 4860 (2) 4680 (3) 6480
(4) 6840 (5) None of these

Q.2. 15×4.25+40.5÷15= ?

(1) 67.45 (2) 68.54 (3) 66.45
(4) 66.54 (5) None of these

Q.3. 450 % of ? ÷ 45–428 = 195

(1) 6230 (2) 6320 (3) 6023
(4) 2306 (5) None of these

Q.4. $\frac{1}{8}$ of 8432 + 25% of ? = 4429

(1) 15300 (2) 14400 (3) 16500
(4) 13500 (5) None of these

Q.5. (732.56–148.46) ÷ 11 = ?

(1) 53.1 (2) 35.1 (3) 54.1
(4) 45.1 (5) None of these

Q.6-10. What should come in place of the question mark (?) in the following number series ?

Q.6. 583 572 546 505 449 ?

(1) 387 (2) 478 (3) 487 (4) 378 (5) None of these

Q.7. 25 26 40 81 ? 611.5

(1) 302.5 (2) 103.5 (3) 203.5 (4) 303.5 (5) None of these

Q.8. 820 832 808 844 796 ?

(1) 866 (2) 856 (3) 586 (4) 685 (5) None of these

Q.9. 20 15 20 45 160 ?

(1) 775 (2) 800 (3) 575 (4) 885 (5) None of these

Q.10. 110 300 ? 1962.5 4931.25

(1) 800 (2) 575 (3) 775 (4) 885 (5) None of these

Q.11. Radhika invested an amount of ₹ 6000 for 2 years. At what rate of compound interest will she get compound interest of ₹ 615 at the end of two year ?

(1) 3 p.c.p.a (2) 4 p.c.p.a (3) 6 p.c.p.a (4) 5 p.c.p.a (5) None of these

Q.12. If the numerator of a fraction is increased by 250% and the denominator of the fraction is increased by 450% the resultant fraction is $\frac{15}{11}$, what is the original fraction ?

(1) $\frac{13}{15}$ (2) $\frac{15}{7}$ (3) $\frac{7}{15}$ (4) $\frac{15}{13}$ (5) None of these

Q.13. In how many different ways can the letters of the word 'COOKING' be arranged ?

(1) 2520 (2) 2025 (3) 5040 (4) 4050 (5) None of these

Q.14. Minakshi purchased a Car for ₹ 1,50,000 and sold it for ₹ 2,10,000. What is the percent profit she made on the Car ?

(1) 40 (2) 30 (3) 38.4 (4) 37.2 (5) None of these

Q.15. There are some 'crow' and some elephants in a zoo. If the total number of animal heads in the zoo is 648 and total number of animals legs is 1426. What is that number of 'crow' in the zoo. ?

(1) 56 (2) 65 (3) 835 (4) 583 (5) None of these

Q.16-20. Study the following table carefully and answer the questions given below it.

Number of T.V. channels telecast in various cities in a year (Number in thousands).

	T.V. Channels				
Cities	MTv	ESPN	AajTak	CNBC	Sahara
A	14	23	27	0.7	0.5
B	10.2	12	26	2	0.3
C	7.5	7	10	1.8	0.6
D	13.1	8	20	2	3.5
E	19	15.6	13	5	2.1
F	13	10.0	10.8	2.7	6.2

Q.16. The Sahara channel telecast in City A is what percent of the channel Aajtak telecast in city C?
(1) 5 (2) 7 (3) 8 (4) 10 (5) None of these

Q.17. What is the average number of entertainment channels telecast in city 'F' ?
(1) 4480 (2) 8404 (3) 8540
(4) 4840 (5) None of these

Q.18. If the number of MTv channel telecast in city B and E is increased by 8%. What will be the total number of MTv channels telecast in both the cities together ?
(1) 43436 (2) 34536 (3) 35136
(4) 31536 (5) None of these

Q.19. What is the respective ratio of the number of CNBC channel telecast in city 'D' to the number of ESPN channels telecast in the city F ?
(1) 5 : 1 (2) 1 : 5 (3) 2 : 3
(4) 1 : 6 (5) None of these

Q.20. What is the total number of Sahara channels telecast in all the cities together ?
(1) 13200 (2) 13100 (3) 12300
(4) 13400 (5) None of these

Q.21. By how much is $\frac{2}{3}$rd of 837 less than $\frac{6}{5}$th of 1200 ?
(1) 872 (2) 782 (3) 882
(4) 282 (5) None of these

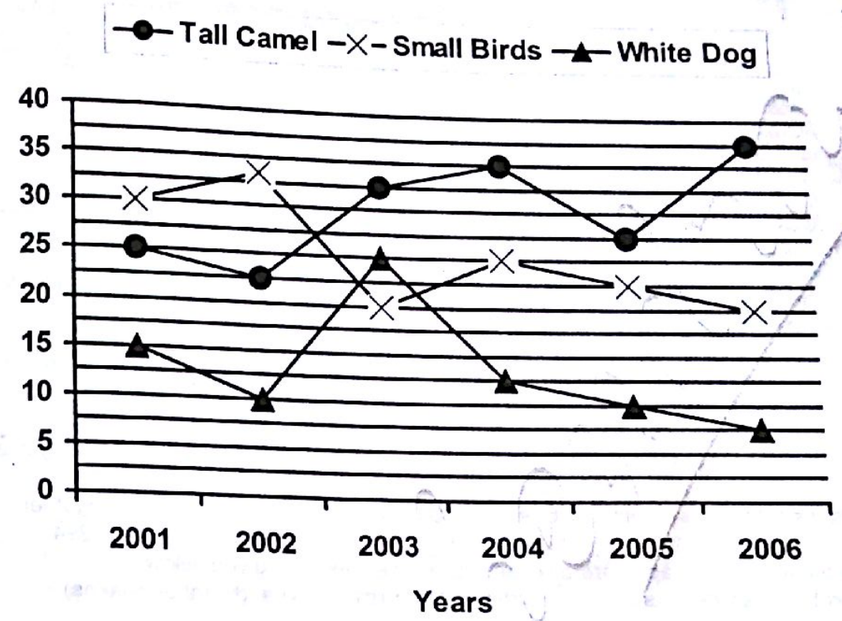
Q.22. There are two numbers such that the sum of twice the first number and thrice the second number is 150 and the sum of thrice of first number and twice the second number is 170. What is the greater number ?
(1) 42 (2) 22 (3) 32
(4) 52 (5) None of these

Q.23. When all teachers in a school are made in rows of 64, 34 such rows are formed. If the teachers are made to stand in the rows of 32, how many such rows can be formed ?
(1) 38 (2) 58 (3) 48
(4) 68 (5) None of these

Q.24. The ratio of the present age of Raju and Rajni is 14 : 20 respectively. Six years ago the respective ratio of their ages was 11 : 17, what will be the respective ratio of their ages four years hence ?
(1) 4 : 5 (2) 11 : 8 (3) 8 : 11
(4) 5 : 4 (5) None of these

Q.25. The average weight of 90 girls in a class is 20. The average weight of a group of 16 girls in the class is 12 kg. and the average weight of another 34 girls in the class is 16. What is the average weight of the remaining girls in the class ?
(1) 15.25 (2) 26.6 (3) 25.15
(4) Can't be determined (5) None of these

Q.26-30. Study the following graph and table carefully and answer the question given below it.
Percentage of Tall Camels, Small Birds and White Dogs in a State in various years.



Total Number of Camels, Birds and Dogs in the country over the years

Years	Tall Camels	Small Birds	White Dogs
2001	44000	36000	12000
2002	70000	62000	24000
2003	62000	64000	15000
2004	64000	56000	13000
2005	75000	60000	25000
2006	78000	80000	40000

Q.26. What was the **approximate** average of tall camels, small birds and white dogs in the year 2006?
(1) 16783 (2) 18783 (3) 16083
(4) 17000 (5) 17083

Q.27. The number of tall camels in the year 2004 was what percent of the small birds in the same year?
(1) 62.5 (2) 64.5 (3) 74
(4) 160 (5) None of these

Q.28. What was the respective ratio of the small birds in the year 2005 to the tall camels in the year 2001?
(1) 4 : 5 (2) 27 : 22 (3) 22 : 27
(4) 6 : 7 (5) None of these

Q.29. What is the difference between the number of small birds and white dogs together in the year 2005 and the number of tall camels in the same year ?
(1) 4652 (2) 4562 (3) 4265
(4) 4625 (5) None of these

Q.30. What was the total number of white dog in the year 2001, 2003 and 2005 together ?
(1) 8000 (2) 8500 (3) 8050 (4) 5080 (5) None of these

Q.31-35. Study the following information carefully and answer the questions given below it.

Percentage marks obtained by 6 students in various subjects

Students	Subjects					
	Maths (Out of 100)	Science (Out of 100)	Hindi (Out of 150)	Geography (Out of 60)	Physics (Out of 150)	Sanskrit (Out of 40)
P	85	70	90	70	74	70
Q	72	60	68	74	68	75
R	70	66	80	80	72	60
S	48	56	72	75	75	80
T	88	73	85	65	88	60
U	68	75	82	60	96	55

Q.31. What is **approximate** percentage marks obtained by students R in all the subjects together ?
(1) 72 (2) 69 (3) 78 (4) 75 (5) 65

Q.32. What is the difference between the marks obtained by students P in Hindi and Geography together and that of by students T in Physics and Sanskrit together ?
(1) 22 (2) 24 (3) 19 (4) 20 (5) None of these

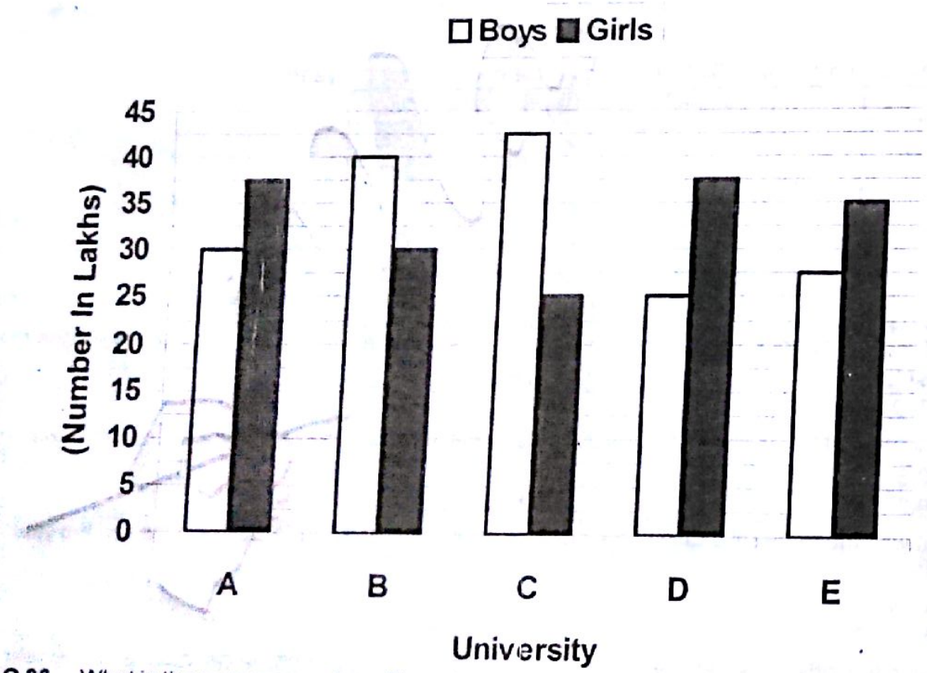
Q.33. The marks obtained by student Q in Sanskrit is approximately what percent of the marks obtained by student S in Physics ?
(1) 20 (2) 26 (3) 30 (4) 34 (5) 17

Q.34. What is the approximate average marks obtained by student T in all the subjects together ?
(1) 86 (2) 76 (3) 80 (4) 72 (5) 90

Q.35. What is the total marks obtained by student U in Hindi, Physics and Sanskrit together ?
(1) 292 (2) 289 (3) 286 (4) 280 (5) 294

Q.36-40. Study the following graph carefully and answer the questions given below :

Number of students studying in different University in a year (Number in lakhs)



Q.36. What is the average number of boys in all university together ?
(1) 3,20,000 (2) 33,00,000 (3) 33,000
(4) 34,00,000 (5) None of these

Q.37. What is the total number of students (Boys & Girls) in university A and C together ?
(1) 1300000 (2) 14,00,000 (3) 13,50,000
(4) 14,40,000 (5) None of these

Q.38. What is the respective ratio of the number of boys from university A and B together to the number of girls in the university C and E together ?
(1) 6 : 7 (2) 17 : 16 (3) 16 : 17
(4) 7 : 6 (5) None of these

Q.39. The number of girls in university B is what percent of the total number of students (Boys & Girls together) in university D ?
(1) 38% (2) 48% (3) 58%
(4) 68% (5) None of these

Q.40. If the total number of girls in university E increases by 50%, what would be the total number of students (Boys & Girls together) in that university ?
(1) 80 lakh (2) 76.5 lakh (3) 85 lakh
(4) 80.5 lakh (5) None of these

Q.41-45. What **approximate** value should come in place of the question mark (?) in the following questions ? (You are not expected to calculate the exact value) ?

Q.41. 58% of 494 – 3.5% of 896 = ?
(1) 350 (2) 300 (3) 315 (4) 255 (5) 400

Q.42. 98.998×9.889+0.89 = ?
(1) 960 (2) 991 (3) 980 (4) 985 (5) 1000

Q.43. $\frac{4}{5} \times \frac{1225}{1428} \times 9 = ?$
(1) 6 (2) 8 (3) 9 (4) 3 (5) 10

Q.44. $\left(\sqrt{240} \times 16\right) \div 20 = ?$
(1) 10 (2) 14 (3) 13 (4) 11 (5) 15

Q.45. (634+9708–215)÷25 = ?
(1) 350 (2) 425 (3) 415 (4) 420 (5) 400

Q.46-50. Study the following information carefully and answer questions given below it.

Out of the 20,000 candidates are eligible for election post. 500 candidates are eligible for MP post. 20% of the total number of candidates are eligible for PM post. 15% of the total number of candidates eligible for CM post. 25% of the total number of candidates eligible for Chief post. 3500 Candidates have worked experience in rural areas are eligible for MLA post. 10% of the total number of candidates are eligible for secreatry of PM and remaining candidates are eligible for the post of Election Commission Member.

Q.46. The candidates who have experience of working in rural areas is what percent of Chief posts ?
(1) 70 (2) 75 (3) 80 (4) 60 (5) None of these

Q.47. What is the difference between the candidates of PM and election commission member ?
(1) 3500 (2) 3000 (3) 2000 (4) 2500 (5) None of these

Q.48. What is the respective ratio of the candidates who are eligible for the post of MP to secreatry of PM ?
(1) 3 : 4 (2) 2 : 3 (3) 4 : 1 (4) 1 : 4 (5) None of these

Q.49. What is the total number of candidates who are eligible for the post of CM, Chief post and MLA together ?
(1) 13,500 (2) 11,500 (3) 12,000 (4) 12,500 (5) None of these

Q.50. What is the percentage of MLA to the total number of candidates ? (**Approximate**).
(1) 15% (2) 16% (3) 20% (4) 19% (5) 17%

TEST - 5
QUANTITATIVE APTITUDE

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

Q.1. 48 × 16 - 36 × 84 ÷ 112 = ?
(1) 1020 (2) 561 (3) 1200 (4) 516 (5) None of these

Q.2. 36.213 - 39.487 + 123.829 = ? + 37.124
(1) 38.341 (2) 83.431 (3) 86.432 (4) 37.413 (5) None of these

Q.3. $\frac{5}{6}$ of $2\frac{1}{3}$ of 90% of 420 = ?
(1) 735 (2) 756 (3) 635 (4) 376 (5) None of these

Q.4. 26% of 520 - 48% of 450 = ? - 84
(1) 4.3 (2) 3.4 (3) 2.4 (4) 3.9 (5) None of these

Q.5. $(\sqrt{4})^3 \times (\sqrt{16})^5 \div (64) = (2)^?$
(1) 4 (2) 6 (3) 7 (4) 5 (5) None of these

Q.6-10. What **approximate** value will come in place of question mark (?) in the following questions ?

Q.6. 1699 × 199 ÷ 49 - 3299 + 4869 = ?
(1) 8370 (2) 8460 (3) 8740 (4) 8480 (5) 8450

Q.7. $\frac{787}{32} \div \frac{55}{869} \times \frac{415}{207} = ?$
(1) 800 (2) 760 (3) 780 (4) 750 (5) 790

Q.8. $(23.13)^2 + (32.11)^2 - (16.21)^2 = ?$
(1) 1400 (2) 1200 (3) 1250 (4) 1350 (5) 1300

Q.9. $\sqrt{3949} \times \sqrt{1220} \div \sqrt{280} = ?$
(1) 120 (2) 130 (3) 140 (4) 150 (5) 110

Q.10. 65% of 701 - 231.17 = ? - 33% of 689
(1) 430 (2) 450 (3) 460 (4) 470 (5) 420

Q.11-15. What will come in place of question mark (?) in the following number series ?

Q.11. 18 34 66 114 178 ?
(1) 252 (2) 258 (3) 242 (4) 285 (5) None of these

Q.12. 24 51 99 201 399 ?
(1) 789 (2) 810 (3) 798 (4) 801 (5) None of these

Q.13. 22 26 35 60 109 ?
(1) 320 (2) 137 (3) 173 (4) 203 (5) 230

Q.14. 48 66 132 150 300 318 ?
(1) 363 (2) 336 (3) 636 (4) 663 (5) None of these

Q.15. 656 344 188 110 ?
(1) 76 (2) 79 (3) 71 (4) 73 (5) None of these

Q.16-20. In the following questions two equations numbered I and II are given. You have to solve both the equations and —

Give answer if (1) x > y
Give answer (2) x ≥ y
Give answer (3) x < y
Give answer (4) x ≤ y
Give answer (5) x = y or the relationship cannot be established

Q.16. I. $x^2 - 14x + 48 = 0$ II. $y^2 - 23y + 132 = 0$

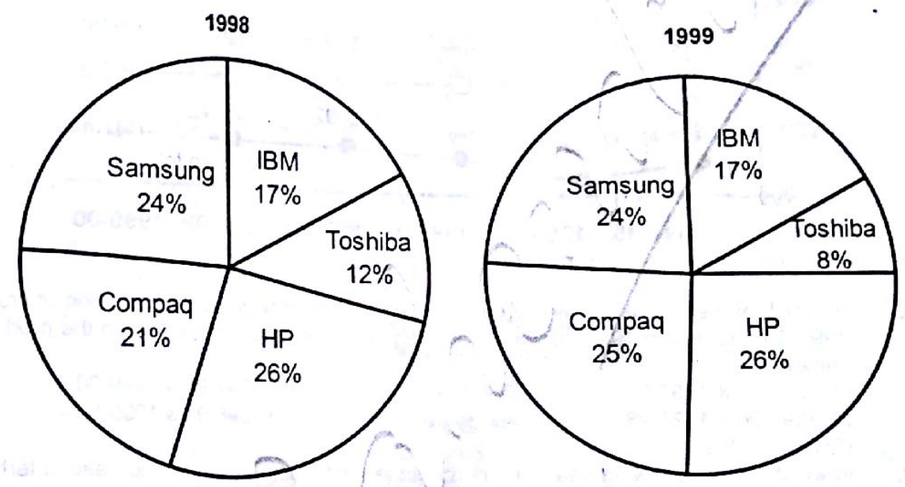
Q.17. I. $\frac{6}{\sqrt{x}} + \frac{16}{\sqrt{x}} = \sqrt{x}$ II. $y^5 - \frac{(11 \times 2)^{1/2}}{\sqrt{y}} = 0$

Q.18. I. $\sqrt{484}x + 1234 = 5678$ II. $\sqrt{1024}y + 4304 = 7568$

Q.19. I. $\frac{32}{\sqrt{x}} - \frac{45}{\sqrt{x}} = 5\sqrt{x}$ II. $\frac{\sqrt{y}}{13} - \frac{7\sqrt{y}}{13} = \frac{1}{\sqrt{y}}$

Q.20. I. $x^2 - 629 = -4$
II. $y^2 = 1681 - 81$

Q.21-25. Study the following Pie-Chart carefully to answer the questions given below.



Total Sales = 7890 crore **% Increase = 16.5**

Percentage Sales of different brands of computers in Allahabad in two different years

Q.21. The percentage increase/decrease in the sales of Toshiba in 1999 is **approximately**—
(1) 16% (2) 61% (3) 22%
(4) 68% (5) 21%

Q.22. Which brand of computers among those shown exhibited the highest rate of growth in the two years ?
(1) HP (2) Compaq (3) Samsung
(4) All of these (5) None of these

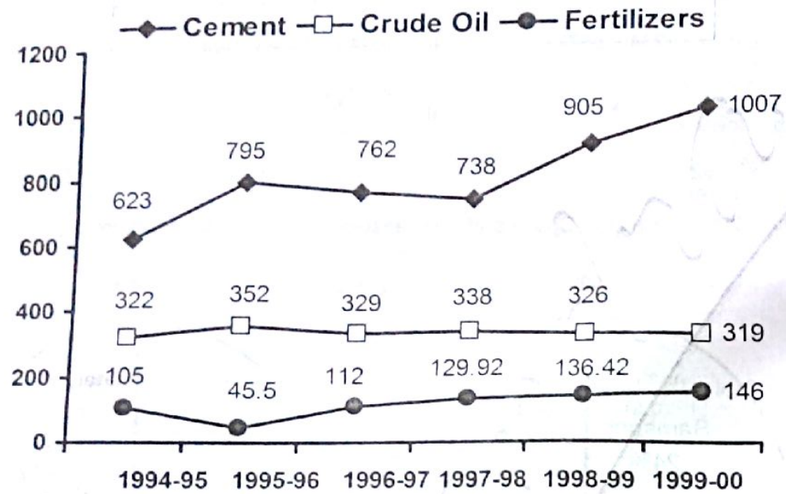
Q.23. What is the ratio between the Compaq sales in 1998 and that of IBM in 1999 ?
(1) 0.94 (2) 1.06 (3) 1.13
(4) 0.89 (5) 0.49

Q.24. For which brand of computers the sales difference is minimum in terms of absolute value between the two years ?
(1) IBM (2) Samsung (3) HP
(4) Compaq (5) Toshiba

Q.25. IBM's sales in 1998 is what percentage of the sales of Samsung in 1999 ?
(1) 46.34% (2) 52.34% (3) 57%
(4) 60.8% (5) 64.43%

Q.26-30. Study the following graph carefully to answer the questions given below.

Production by Industries (In Lakh Tonnes)



Q.26. In which of the following pairs of years the difference between the production of crude oil in 1995-96 and that in 1999-00 was exactly equal to the difference between the production of cement ?

(1) 1994-95 & 1997-98 (2) 1994-95 & 1999-00
(3) 1995-96 & 1997-98 (4) 1998-99 & 1999-00
(5) None of these

Q.27. In which of the following years the percentage fluctuation increase/decrease in fertilizers is minimum from the previous year ?

(1) 1994-95 (2) 1996-97 (3) 1999-00 (4) 1997-98 (5) 1998-99

Q.28. What is the difference between the average cement production and the average crude oil production during the given years (in lakh tonnes) ?

(1) 474 (2) 460 (3) 560 (4) 469 (5) 559

Q.29. If there is 15% increase in the fertilizers production from 1998-99 to 2000-01, what would be difference between the Cement and Fertilizers production in 2000-01 (in lakh tonnes) ?

(1) 839.10 (2) 990.15 (3) 1012.05
(4) Can't be determined (5) None of these

Q.30. Find the approximate percentage increase in Cement production from 1994-95 to 1999-00 ?

(1) 55% (2) 60% (3) 65% (4) 69% (5) 58%

Q.31-35. Read the following table carefully and answer the questions given below.

Number of Cars (In thousands) of different models and colours sold in two Metro Cities in a year

	Metro–M					Metro–H				
Type	Black	Red	Blue	White	Silver	Black	Red	Blue	White	Silver
A	40	25	55	75	15	45	32	40	60	20
B	20	35	60	80	20	30	37	39	81	35
C	35	30	50	90	35	40	42	41	6	37
D	45	40	45	85	40	35	39	37	90	42
E	50	35	35	60	30	50	44	43	77	22
F	55	42	40	65	52	47	34	45	87	17

Q.31. The difference between the white-coloured cars sold in the two metros of which of the following models is the minimum ?

(1) A (2) C (3) D
(4) F (5) None of these

Q.32. The total number of blue-coloured cars of Model E and D sold in Metro H is exactly equal to the number of white-coloured cars of which model in Metro M ?

(1) B (2) F (3) C
(4) A (5) None of these

Q.33. What is the difference between the number of blue-colour cars of model 'C' sold in Metro M and number of red-colour cars of model F sold in Metro H ?

(1) 8,000 (2) 10,000 (3) 12,000
(4) 15,000 (5) None of these

Q.34. In metro M the number of cars sold is minimum for which of the colour model combinations ?

(1) White-C (2) Blue-B (3) Silver-B
(4) White-D (5) None of these

Q.35. The total number of silver-coloured cars sold in Metro H is **approximately** what percentage of that in Metro M ?

(1) 130 (2) 140 (3) 90
(4) 100 (5) 110

Q.36-40. The question given below contain two statements giving certain data. You have to decide whether the data given in the statements are sufficient for answering the question ? Mark answer-

(1) If statement **I** alone is **sufficient** but statement II alone is not sufficient.
(2) If statement **II** alone is **sufficient** but statement I alone is not sufficient.
(3) If **each** statement **alone** (either I or II) is **sufficient**.
(4) If statement I and II together are **not sufficient**.
(5) If **both** statement together are **sufficient**, but neither statement alone is sufficient.

Q.36. What is the average monthly income of per member of a family ?

I. Each male earns Rs. 1,250 a month and each female earns Rs. 1,050 a month.
II. Ratio of males to females in the family is 2 : 1.

Q.37. 15 men and 18 women together can complete a work in 10 days. How many days will it take 9 men and 14 women together to complete the same work ?

I. 30 men can complete the work in 13 days.
II. The amount of work done by a man in one day is 3/4 of the work done by a woman in one day.

Q.38. What is the age of Sonali ?

I. The ratio of the ages of Sonali and Meenu is 1 : 5.
II. After 7 years the ratio becomes 3 : 8.

Q.39. How much water does a man mix in one litre of milk ?

I. He mixes some water and sells the mixture at the cost price.
II. He makes a profit of 10%

Q.40. Find the number of males and females in a party.

I. The ratio of males and females is 3 : 2.
II. The number of males is 50% more than the number of females.

Q.41. The circumference of two circles is 44 metres and 440 metres respectively. What is the difference between the area of the larger circle and the smaller circle ?

(1) 16245 sq. mt (2) 15246 sq.mt (3) 12546 sq.mt
(4) 12645 sq.mt (5) None of these

Q.42. 25% of a number is 258 less than the square of 25. What is the value of three-fourth of 43 percent of that number ?

(1) 437.44 (2) 477.33 (3) 437.34
(4) 473.43 (5) None of these

Q.43. The ratio between the speed of a cycle and Rickshaw is 15 : 30 respectively and a car covered a distance of 360 km in 9 hours. The speed of the cycle is three-fourth of the speed of the car. How much distance will the Rickshaw cover in 6 hours ?

(1) 630 km (2) 720 km (3) 360 km
(4) Can't be determined (5) None of these

Q.44. Ravi purchased an item for Rs. 23,000 and sold it at a loss of 8 percent. With that amount he purchased another item and sold it at a gain of 8 percent. What was his overall gain/loss ?

(1) Loss Rs. 147.2 (2) Gain Rs. 147.2
(3) Loss Rs. 72.4 (4) Gain Rs. 172.4
(5) None of these

Q.45. The ratio of the ages of father and son at present is 6 : 1. After 5 years, the ratio will become 7 : 2. The present age of son is—

(1) 5 years (2) 6 years (3) 9 years
(4) 10 years (5) None of these

Q.46. In an examination 52% of the candidate failed in English, 42% in mathematics and 17% in both. Find the percentage of those who passed in both subjects ?

(1) 83% (2) 23% (3) 64%
(4) 55.5% (5) None of these

Q.47. What will be the probability that an ordinary year has 53 Sunday ?

(1) $\frac{53}{365}$ (2) $\frac{1}{7}$ (3) $\frac{2}{7}$
(4) $\frac{53}{48}$ (5) None of these

Q.48. 15 litres of a mixture contains 20% alcohol and the rest is water. If 3 litres of water is mixed in it find the percentage of alcohol in the new mixture ?

(1) 17% (2) $18\frac{1}{2}\%$ (3) $16\frac{2}{3}\%$
(4) 15% (5) None of these

Q.49. A is thrice as good workman as B and takes 10 days less to do a piece of work than B takes. Find the number of days taken by B to finish the work ?

(1) 12 (2) 15 (3) 20
(4) 30 (5) None of these

Q.50. If a rectangle and a parallelogram are equal in area and have the same base and are situated on the same side, then the quotient : $\frac{\text{Perimeter of rectangle}}{\text{Perimeter of parallelogram}}$ is-

(1) Equal to 1 (2) Greater to 1 (3) Less than 1
(4) Indefinite (5) None of these

TEST - 6
QUANTITATIVE APTITUDE

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

Q.1. $(762-9025\div19)^2 = ?\times2$

(1) 40754 (2) 41184.5 (3) 82369 (4) 287 (5) None of these

Q.2. $1\frac{3}{7}-1\frac{1}{5} = ?-4\frac{1}{8}+1\frac{1}{8}$

(1) $3\frac{7}{72}$ (2) $3\frac{4}{72}$ (3) $3\frac{8}{35}$ (4) $3\frac{12}{35}$ (5) None of these

Q.3. $(81)^2 \times (9)^8 \times (729)^2 = (9)^?$

(1) 11 (2) 13 (3) 14 (4) 12 (5) None of these

Q.4. 37% of 8890 + 64% of 7284 = ? –325

(1) 8276.60 (2) 8256.76 (3) 8516.02 (4) 8276.06 (5) None of these

Q.5. 355×2.4×1.7=?+540

(1) 981.5 (2) 908.4 (3) 991.2 (4) 952.4 (5) None of these

Q.6-10. What **approximate** value will come in place of the question mark (?) in the following questions ?

Q.6. 876.902×518.099÷13.091=?×8.762

(1) 3500 (2) 4800 (3) 4000 (4) 3200 (5) 3000

Q.7. $\frac{985}{32}\div\frac{68}{982}\times4\frac{11}{14} = ?$

(1) 2800 (2) 1850 (3) 2200 (4) 2600 (5) 3000

Q.8. $(47.23)^2 + (27.95)^2 - (18.99)^2 = ?+50.99$

(1) 2000 (2) 2350 (3) 2400 (4) 2250 (5) 2580

Q.9. 34.99% of 899.85 –541.99 = ?–24% of 8790

(1) 1600 (2) 1880 (3) 1480 (4) 1580 (5) 2080

Q.10. $\sqrt{6889}\times\sqrt{4444}\div\sqrt{260} = ?$

(1) 295 (2) 450 (3) 345 (4) 480 (5) 520

Q.11-15. What will come in place of the question mark(?) in the following number series ?

Q.11. 256, 1841, 11082, ?, 221756

(1) 50280 (2) 55435 (3) 54632 (4) 45680 (5) None of these

Q.12. 1152, 576, 1728, 864, ?

(1) 1800 (2) 3032 (3) 4250 (4) 2592 (5) None of these

Q.13. 56, 232, 944, ?, 15232

(1) 4200 (2) 3600 (3) 3800 (4) 3700 (5) None of these

Q.14. 1876, ? 1648, 1363, 964

(1) 1729 (2) 1863 (3) 1849 (4) 1819 (5) None of these

Q.15. 40320, 20160, 6720, ?, 336

(1) 1680 (2) 1580 (3) 1780 (4) 1820 (5) None of these

Q.16-20. In each of the following questions, two equations are given. You have to solve them and

Give answer (1) If x>y
Give answer (2) If x≥y
Give answer (3) If x<y
Give answer (4) If x≤y
Give answer (5) If x=y or relationship can not be established

Q.16. I. $x^3 - 2314 = 2599$ II. $y^2-1733+1564=0$

Q.17. I. $\sqrt{961}\,x+1234 = 1486$ II. $\sqrt{1024}\,y - 1196 = 1001$

Q.18. I. $x^2 - 6x+9 = 0$ II. $y^2 +2y- 3 = 0$

Q.19. I. $10x^2 - 7x + 1 = 0$ II. $35y^2 - 12y + 1 = 0$

Q.20. I. $3x + 2y = 14$ II. $x+4y-13=0$

Q.21. A vessel contains 140 litres mixture of milk and water, 60% of milk and 25% of water is taken out of the vessel. It is found that the vessel is emptied by 40%. Find the difference between the initial quantities of milk and water ?
(1) 30 litres (2) 15 litres (3) 20 litres (4) 25 litres (5) None of these

Q.22. A train is moving at the speed of 108 km/hr. and crosses a 250 metre long platform in 13 seconds. What is the length of train ?
(1) 240 m. (2) 250 m. (3) 180 m. (4) 140 m. (5) None of these

Q.23. The respective ratio of students studying in school P, Q and R is 8 : 6 : 7. What would be the respective ratio of students if the ratio increases by 15%, 20% and 25% respectively ?
(1) 189 : 140 : 175 (2) 149 : 125 : 165 (3) 1 : 2 : 3
(4) 184 : 144 : 175 (5) None of these

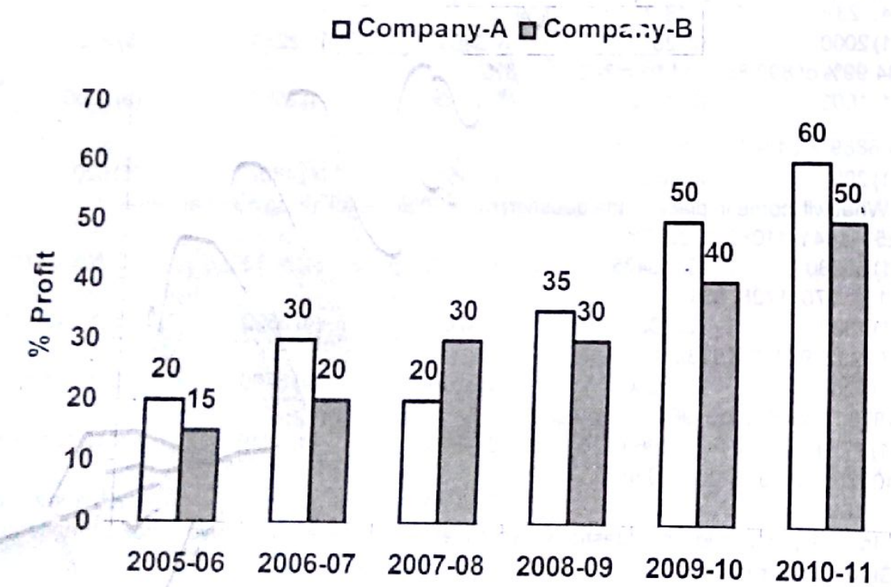
Q.24-25. Study the following information carefully to answer the questions that follows
A committee of few members to be formed out of 7 males and 5 females.

Q.24. In how many ways a committee can be formed of 6 members having 3 males and 3 females.
(1) 250 (2) 300 (3) 350 (4) 400 (5) None of these

Q.25. If the committee of 3 members having atleast 1 female.
(1) 105 (2) 195 (3) 240 (4) 185 (5) None of these

Q.26-30. Study the following graph carefully to answer the questions that follows
In the given years total earned profit by two companies

$$\%\text{profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100\%$$



Q.26. If the income of company A in 2006-07 was equal to expenditure of company B in 2010-11 then what was the respective ratio of income of company A in 2006-07 and that of company B in 2010-11 ?
(1) 1 : 2 (2) 3 : 5 (3) 13 : 15
(4) Can't be determined (5) None of these

Q.27. If income of company B in 2009-10 was ₹ 175 crore then what was the expenditure of company B in 2010-11 ?
(1) 2 : 3 (2) 1 : 2 (3) 3 : 4
(4) Can't be determined (5) None of these

Q.28. In 2010-11 the income of company B was ₹ 144 crore. What was the expenditure in that year ?
(1) ₹ 80 crore (2) ₹ 90 crore (3) ₹ 100 crore
(4) Can't be determined (5) None of these

Q.29. What was the difference between the expenditure of two companies in 2007-08 ?
(1) ₹ 45 crore (2) ₹ 80 crore (3) ₹ 120 crore
(4) Can't be determined (5) None of these

Q.30. In 2005-06 the expenditure of company A was ₹ 40 crore. What was income in that year ?
(1) ₹ 59 crore (2) ₹ 56 crore (3) ₹ 48 crore (4) ₹ 68 crore (5) None of these

Q.31-35. Study the following table carefully to answer the questions that follows
Distribution of marks obtained by 200 students in science, Arts and commerce out of 50.

	No. of students obtained marks				
	40 and above	30 and above but less than40	20 and above but less than 30	10 and above but less than 20	Less than 10
Science	24	36	84	40	16
Arts	32	38	76	34	20
Commerce	22	48	88	30	12
Average of Sc., Art. & com.	28	40	86	32	14

Q.31. Minimum how many students will pass if they are required to obtain minimum 40 marks either in Science or in Commerce ?
(1) 187 (2) 140 (3) 135 (4) 154 (5) None of these

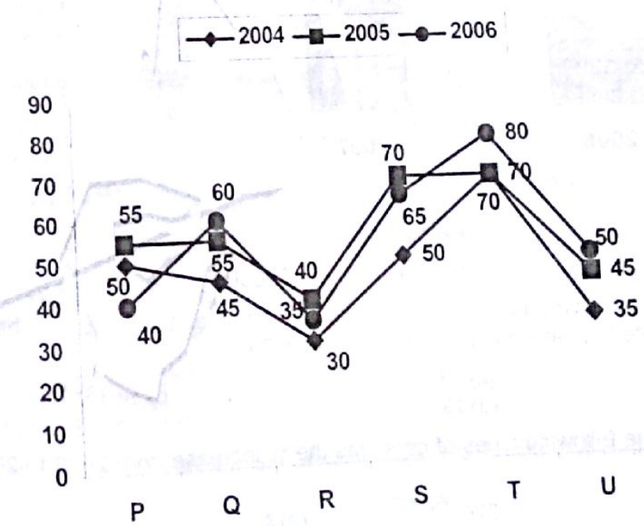
Q.32. How many students will pass if it is compulsory to pass only in Arts with minimum 40% marks ?
(1) 120 (2) 110 (3) 146 (4) 90 (5) None of these

Q.33. How many students have scored less than 30 marks in Arts ?
(1) 154 (2) 130 (3) 112 (4) 85 (5) None of these

Q.34. How many students will pass if they are required to obtain minimum 60% only as average marks of Science, Arts & Commerce ?
(1) 78 (2) 68 (3) 75 (4) 49 (5) None of these

Q.35. How many students will definitely pass if it is compulsory to obtain minimum 20% marks in Art subject ?
(1) 190 (2) 160 (3) 178 (4) 180 (5) None of these

Q.36-40. Study the following graph carefully to answer the questions that follows
Production of Alluminium by different companies in three consecutive years (in lakh tonne).



Q.36. Which of the following companies recorded the minimum percentage growth from 2004 to 2005 ?
(1) P (2) Q (3) R (4) S (5) T

Q.37. Production of company R in 2005 and production of company U in 2004 together is what percent of production of company Q in 2006 ?
(1) 155 (2) 125 (3) 145
(4) 162 (5) None of these

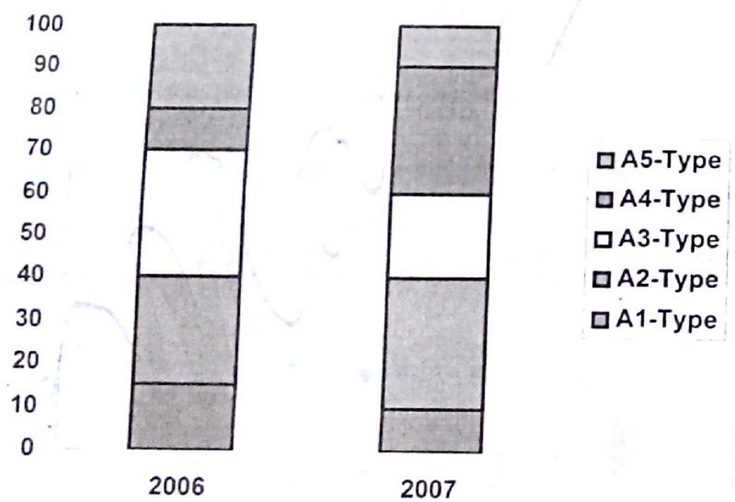
Q.38. In which of the following pairs of comapanies the difference between average production for the three years in maximum ?
(1) R and U (2) S and R (3) T and R
(4) P and T (5) None of these

Q.39. What is the difference between average production of the six companies in 2005 and average production of the same companies in 2004 ?
(1) 840000 (2) 500000 (3) 850000
(4) 916666 (5) None of these

Q.40. What is the percentage decline in production of company R from 2005 to 2006 ?
(1) 16.6% (2) 14.8% (3) 12.5%
(4) 15.4% (5) None of these

Q.41-45. Study the following graph carefully to answer the questions that follows

The % of five different types of cars produced by a company during two years is given below:



Total no. of cars produced in 2006 = 450000 Total no. of cars produced in 2007 = 520000

Q.41. If the number of A_1 type cars manufactured in 2007 was the same as that in 2006, what would have seen its approximate % share in the total production of 2007 ?
(1) 11 (2) 13 (3) 15
(4) 9 (5) 18

Q.42. In the case of which of the following types of cars was the % increase from 2006 to 2007 the maximum ?
(1) A_1 (2) A_2 (3) A_3 (4) A_4 (5) A_5

Q.43. If the percentage production of A_2 type cars in 2007 was the same as that in 2006 what would have been the number of cars produced in 2007 ?
(1) 120000 (2) 130000 (3) 115000
(4) 145000 (5) None of these

Q.44. What was the difference in the production of A_3 type cars between 2006 and 2007 ?
(1) 40000 (2) 45000 (3) 55000
(4) 50000 (5) None of these

Q.45. If 85% of A_5 type cars produced during 2006 and 2007 are being sold by the company, then how many A_5 type cars left unsold by the company ?
(1) 21000 (2) 22500 (3) 21300
(4) 24200 (5) None of these

Q.46-50. Study the table graph carefully to answer the questions that follows

Production of main crops in India (In million tonnes)

Crops	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Pulses	25.5	27.4	29.6	28.5	32.8	33.2
Oil seeds	34.4	36.6	42.8	44.4	48.8	54.5
Rice	84.5	90.4	92.2	96.2	98.2	94.8
Sugarcane	150.8	160.2	162.2	170.2	166.4	182.5
Wheat	135.2	143.4	151.8	146.6	158.2	163.4
Coarse grain	47.6	54.8	62.4	64.4	60.2	64.8
Total	478	512.8	541	550.3	564.6	593.2

Q.46. Production of rice was what percentage of the total crops produced in the year 2001-02 ?
(1) 18.5 (2) 19.2 (3) 21.7
(4) 17.6 (5) None of these

Q.47. Production of what type of crops was going to increase in each year in the given years ?
(1) Pulse (2) Rice (3) Sugarcane
(4) oilseeds (5) None of these

Q.48. Production of wheat in 2003-04 was approximately what % of production of sugarcane in 2006-07 ?
(1) 93 (2) 83 (3) 78
(4) 100 (5) 105

Q.49. What was the average production of rice in the given years ?
(1) 98 Million tonnes
(2) 95 Million tonnes
(3) 93 Million tonnes
(4) 100 Million tonnes
(5) 89 Million tonnes

Q.50. What is the difference of average production of Pulses and Sugarcane ?
(1) 100 (2) 150 (3) 165
(4) 135 (5) 130

TEST - 7

QUANTITATIVE APTITUDE

Q.1-15. What will come in the place of question mark (?) in following questions?

Q.1. $(55)^2 + (18)^2 - (42)^2 = ?$

(1) 1675 (2) 1585 (3) 1855 (4) 1558 (5) None of these

Q.2. $\frac{(8)^2}{36} \times \frac{144}{512} \times 3\frac{2}{6} = ?$

(1) $\frac{2}{5}$ (2) $\frac{1}{5}$ (3) $\frac{3}{5}$ (4) $\frac{5}{3}$ (5) None of these

Q.3. $136 \times 85 \times 18 - 26895 = ?$

(1) 181185 (2) 188151 (3) 158185 (4) 118585 (5) None of these

Q.4. $7777 \div 11 \times 7 = ? + 2323$

(1) 1613 (2) 3161 (3) 1316 (4) 3611 (5) None of these

Q.5. $6305 \times 25 \div 65 = ?$

(1) 2542 (2) 2524 (3) 2425 (4) 2254 (5) None of these

Q.6. $\sqrt[3]{46656} + \sqrt[3]{9261} = ?$

(1) 57 (2) 56 (3) 58 (4) 66 (5) None of these

Q.7. 16% of $\frac{3}{4}$ of 66% of 6000 = ?

(1) 427.5 (2) 425.0 (3) 247.5 (4) 472.5 (5) None of these

Q.8. 12839 + 62591 - 34812 = ?

(1) 40618 (2) 41806 (3) 62148 (4) 48610 (5) None of these

Q.9. $\sqrt[3]{17576} \times 16 + 8250 = ?$

(1) 8866 (2) 6886 (3) 8666 (4) 8686 (5) None of these

Q.10. $8200 \times \frac{18}{16} = ?$

(1) 2595 (2) 8252 (3) 8225 (4) 9225 (5) None of these

Q.11. $\left(\sqrt{82+46+16+52}\right) \times \left(\sqrt{200 \times 5 - 39}\right) = ?$

(1) 635 (2) 534 (3) 346 (4) 434 (5) None of these

Q.12. $5\frac{6}{7} + 8\frac{2}{14} + 9\frac{1}{7} = ?$

(1) $22\frac{3}{7}$ (2) $23\frac{1}{7}$ (3) $24\frac{2}{7}$ (4) $26\frac{1}{14}$ (5) None of these

Q.13. $2.1 \times 0.02 \times 6.3 = ?$

(1) 0.2614 (2) 0.6642 (3) 0.2646 (4) 0.6214 (5) None of these

Q.14. $4619 + 203 + 4 = (?)^2$

(1) $\sqrt{4826}$ (2) 4826 (3) 73 (4) 5329 (5) None of these

Q.15. $\left(6\sqrt{5} + 7\sqrt{5}\right) \times 3\sqrt{5} = ?$

(1) 915 (2) 519 (3) 951 (4) 159 (5) None of these

Q.16-20. What will come in the place of question mark (?) in the given number series ?

Q.16. 38 343 5489 137226 ?

(1) 4940137 (2) 4040135 (3) 2195617 (4) 2561917 (5) None of these

Q.17. 16 21 46 141 566 ?

(1) 2266 (2) 2265 (3) 2832 (4) 2831 (5) None of these

Q.18. 18 34 66 114 178 ?

(1) 246 (2) 258 (3) 254 (4) 242 (5) None of these

Q.19. 26 51 103 ? 411 821

(1) 207 (2) 206 (3) 204 (4) 203 (5) None of these

Q.20. 16 32 96 480 ?

(1) 3260 (2) 3360 (3) 3630 (4) 3740 (5) None of these

Q.21-25. What **approximate** value will come in place of the question mark (?) in the following questions ? (Note : You are not expected to calculate the exact value).

Q.21. $3269 \div 18 = ?$

(1) 180 (2) 185 (3) 178 (4) 186 (5) 175

Q.22. 82.5% of 637 + 72.6% of 680 = ?

(1) 1022 (2) 1030 (3) 1010 (4) 1005 (5) 1020

Q.23. $\sqrt{62839} = ?$

(1) 245 (2) 255 (3) 250 (4) 260 (5) 270

Q.24. $28.135 \times 62.89 \times 75.6 = ?$

(1) 133700 (2) 133730 (3) 173300 (4) 133770 (5) 103770

Q.25. $6394 \div 25 \times 12 \times 2.99 = ?$

(1) 9100 (2) 9200 (3) 9300 (4) 9400 (5) 9500

Q.26. The length of a rectangular room is 20 feet and the breadth is $\frac{5}{4}$th of the length. The total cost of carpeting in the room is Rs. 16,2000/-. What will the per square feet cost of putting the carpet?

(1) Rs. 310 (2) Rs. 325 (3) Rs. 320 (4) Rs. 324 (5) None of these

Q.27. Previously the price of a chocolate was Rs. 540 and now it has been increased to Rs. 660/- What is the **approximate** percent increase in the price of chocolate ?

(1) 20 (2) 23 (3) 30 (4) 80 (5) 40

Q.28. A car covers 504 kms in 9 hours. The average speed of motorcycle is 2.5 times the average speed of the car. How much distance will the motorcycle covers in 14 hours.

(1) 1690 km (2) 1609 km (3) 1960 km (4) 9610 km (5) None of these

Q.29. If the numerator of a fraction is increased by 250% and the denominator is increased by 300%, the new fraction thus formed is $\frac{15}{28}$. What will be the resultant fraction if the numerator of the original fraction is increased by 400% and denominator is increased by 450% ?

(1) $\frac{300}{539}$ (2) $\frac{400}{539}$ (3) $\frac{300}{359}$ (4) $\frac{300}{953}$ (5) None of these

Q.30-34. Read the following information carefully to answer the questions given below ?

Five schools A, B, C, D and E participated in the programme of a game. The total number of students are 800 in this programme. The ratio between the number of girls and boy is 1 : 3 respectively. 25% out of total students are from school B. 110 students out of the total number of students are from school D. 10% students out of the total are from school C. The number of students in school A are double to the number of students is school D. Remaining students are in school E. 30% of the total students in school B are girls. The half number of girls students in B is equal to the number of girls in school D. 10% students of school A is equal to the number of girls in the school C. The number of girls in school A and E are equal.

Q.30. What is the total number of girls in the school B, D and E ?

(1) 102 (2) 134 (3) 120
(4) 143 (5) None of these

Q.31. What is the **approximate** percentage of the total number of girls in school D to the total number of students in school A ?

(1) 10 (2) 20 (3) 12
(4) 14 (5) 18

Q.32. In which of the following schools number of girls is maximum and number of boys are minimum respectively ?

(1) B and C (2) A and D (3) A and B
(4) B and D (5) None of these

Q.33. What is the respective ratio of total number of students in school C to total number of students in school E ?

(1) 19 : 20 (2) 8 : 19 (3) 19 : 8
(4) 20 : 19 (5) None of these

Q.34. What percentage of total number of girls in school A and B to the total number of students in school C ?

(1) 110 (2) 30 (3) 20
(4) 120 (5) 130

Q.35-39. Study the following table carefully and answer the questions given below ?

Foreign Investment Approved (2006-2010)
Developed, Developing & Socialist Countries ($ million)

Year	2006	2007	2008	2009	2010
Developed	1215.09	1909.43	2246.82	6777.08	5554.58
Developing	138.15	658.04	538.36	2953.74	2540.48
Socialist	5.07	4.52	33.88	37.63	3.95
Total	1358.31	2571.99	2819.06	9768.44	8099.01

Foreign Investment Approved (2006-2010)
Countrywise ($ million)

Year	2006	2007	2008	2009	2010
USA	475.15	1135.29	1111.78	2175.46	2838.32
UK	45.40	258.22	414.08	532.24	430.55
Japan	235.45	84.42	127.78	466.98	420.07
Switzerland	266.13	139.97	15.39	95.44	45.09
Others	336.18	954.09	1150.03	6498.32	4364.98
Total	1358.31	2571.99	2819.06	9768.44	8099.01

Q.35. What **approximate** percentage of the total foreign investment in 2010 was approved by developed countries ?

(1) 72 (2) 65 (3) 69 (4) 70 (5) 90

Q.36. How many countries are developed and developing respectively.

(1) 2, 2 (2) 3, 1
(3) 1, 3 (4) Data Inadequate
(5) None of these

Q.37. By how many **approximate** percent points in the total approvals, the share of UK has grown over the given period ?

(1) 6 (2) 2 (3) 3 (4) 8 (5) 12

Q.38. Which of the following country's foreign investment decreased from 2006 to 2010 ?

(1) UK (2) Japan (3) Other
(4) Switzerland (5) None of these

Q.39. Foreign investment of developed country in 2008 is what percent of the total foreign investment in 2010 ?

(1) 29 (2) 26 (3) 28 (4) 30 (5) 35

Q.40-44. Each of the questions given below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements is sufficient to answer the question. Read both the statements and–

Give answer (1) if the data in statement I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.

Give answer (2) if the data in statement II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.

Give answer (3) if the data in statement I alone or statement II alone is sufficient to answer the question.

Give answer (4) if the data in both the statements I and II is not sufficient to answer the question.

Give answer (5) if the data in both the statements I and II together is necessary to answer the question.

Q.40. What is the original number ?

I. Sum of the digit of a two digit number is 10. The ratio between the two digits is 1 : 4.

II. Product of two digits of a number is 16. Quotient of the two digit is 4.

Q.41. By selling a product at 20% profit, how much profit was earned ?

I. The difference between cost price and selling price is Rs. 40.

II. The selling price is 120 percent of the cost price.

Q.42. How many marks did Neha get in History ?

I. Average marks obtained by Neha in History, Maths and English is equal to the average marks in Maths and English.

II. Neha got a total of 120 marks in Maths and English together ?

Q.43. A shopkeeper marked the price of an article and gave a discount of 20%. Find the marked price of the article ?

I. The cost price of the article is Rs. 2500.

II. After giving the discount the shopkeeper gets 28% profit.

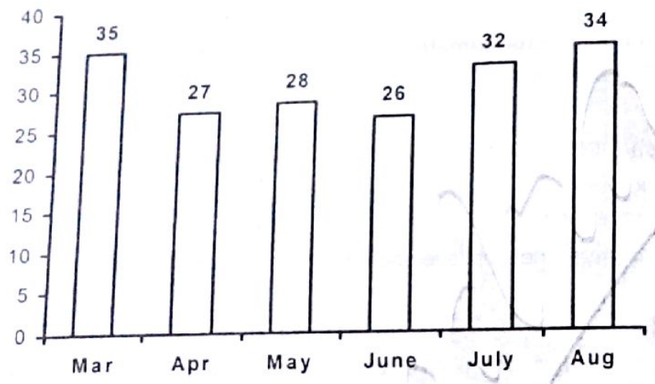
Q.44. What is the speed of a running train ?

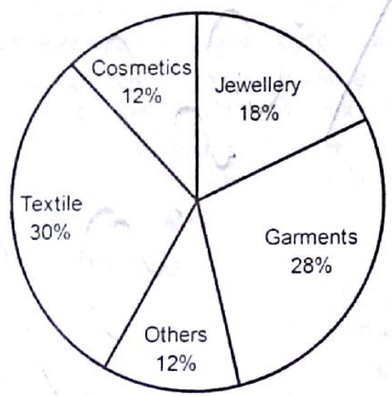
I. The train crosses a signal post in 6 seconds.

II. The train crosses another train running in the opposite direction in 15 seconds.

Q.45-49. Study the following chart carefully to answer the questions given below.

(India's Import in $ billion)





Q.45. What is the average import of textiles industry over the period ?

(1) 22.32 billion (2) 24.32 billion (3) 21.84 billion (4) 20.74 billion (5) None of these

Q.46. If the import in september is increased by 10% in comparison to previous month, then what is the amount of increase in Garment Industry ?

(1) 0.95 billion (2) 1.42 billion (3) 1.84 billion
(4) Data inadequate (5) None of these

Q.47. The import of jewellery in August is what percent more than other industry in March ?

(1) 44.2% (2) 45.7% (3) 48% (4) 48.7% (5) 45%

Q.48. The import of cosmetics in April is how many times the import of textiles in August ?

(1) 0.50 (2) 0.25 (3) 0.60 (4) 0.20 (5) 0.30

Q.49. The import of garments and cosmetics together in the month of July is **approximately** what percent of the import of Jewellery and Others in the month of March ?

(1) 130% (2) 115% (3) 120% (4) 125% (5) 110%

Q.50. In how many different ways can the letters of the word **'PRAYER'** be arranged ?

(1) 360 (2) 720 (3) 540 (4) 120 (5) None of these

TEST - 8
QUANTITATIVE APTITUDE

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

Q.1. $1\frac{1}{4} + 1\frac{5}{9} \times 1\frac{5}{8} \div 6\frac{1}{2} = ?$

(1) 17 (2) 27 (3) 42 (4) 18 (5) None of these

Q.2. If $289 = 17^{\frac{x}{5}}$, then x = ?

(1) 16 (2) 8 (3) 32 (4) 2/5 (5) None of these

Q.3. 0.01 × 0.1 - 0.001÷10 + 0.01 = ?

(1) 0.01009 (2) 0.0101 (3) 0.19 (4) 0.109 (5) 0.0109

Q.4. If x% of 500 = y% of 300 and x% of y% of 200 = 60, then x = ?

(1) $10\sqrt{2}$ (2) $20\sqrt{2}$ (3) $15\sqrt{2}$ (4) $30\sqrt{2}$ (5) None of these

Q.5. $\frac{16 \times 32}{9 \times 27 \times 81} = ?$

(1) $\left(\frac{2}{3}\right)^{12}$ (2) $\left(\frac{2}{3}\right)^{11}$ (3) $\left(\frac{2}{3}\right)^{13}$ (4) $\left(\frac{2}{3}\right)^{9}$ (5) None of these

Q.6-10. What **approximate** value should come in place of question mark (?) in the following questions ? (**Note:** You are not expected to calculate the exact value.)

Q.6. 23.999 X 9.004 X 16.997 = ?

(1) 3200 (2) 4100 (3) 2700 (4) 3700 (5) 4500

Q.7. $5\frac{7}{9} \times 8\frac{4}{5} \times 9\frac{2}{3} = ?$

(1) 490 (2) 590 (3) 540 (4) 460 (5) 520

Q.8. 5940 ÷ 28 ÷ 6 = ?

(1) 40 (2) 35 (3) 46 (4) 52 (5) 27

Q.9. 15.5% of 850 + 24.8% of 650 = ?

(1) 295 (2) 330 (3) 270 (4) 375 (5) 220

Q.10. $\sqrt{2230} = ?$

(1) 54 (2) 59 (3) 41 (4) 37 (5) 47

Q.11-12. In the following number series only one is **wrong**. Find out the **wrong** number.

Q.11. 8 11 17 47 128 371 1100

(1) 11 (2) 47 (3) 17 (4) 371 (5) 128

Q.12. 1 5 13 31 61 125 253

(1) 1 (2) 5 (3) 31 (4) 61 (5)125

Q.13. Aman's expense is 30% more than Vimal's expense and Vimal's expense is 10% less than Raman's expense. If the sum of their expenses is Rs. 6,447/-, then what would be the Aman's expense ?

(1) Rs. 2,200/- (2) Rs. 2,457/- (3) Rs. 1,890/- (4) Rs. 2,100/- (5) None of these

Q.14. In a test, a candidate secured 336 marks out of maximum marks 'x'. If the maximum marks 'x' were converted into 400 marks, he would have secured 192 marks. What were the maximum marks of the test ?

(1) 700 (2) 750 (3) 500 (4) 650 (5) 800

Q.15. An AC consumes 8 units of electricity in 30 minutes and a bulb consumes 18 units of electricity in 6 hours. How much total unit of electricity will both AC and bulb consume in 8 days if they run 10 hours a day ?

(1) 1280 units (2) 1528 units (3) 1248 units
(4) 1520 units (5) 1620 units

Q.16. What amount a man would have received on a principal of Rs.4,000 after two years simple interest @ 5 p c p.a ?
(1) Rs 4,161/- (2) Rs. 5,200/- (3) Rs. 4,400/- (4) Rs. 4,100/- (5) Rs. 4,190/-

Q.17. Four years ago Shayam's age was 3/4 times that of Ram. Four years hence. Shayam's age will be $\frac{5}{6}$ times that of Ram. What is the present age of Shayam ?
(1) 15 years (2) 20 years (3) 16 years (4) 24 years (5) 8 years

Q.18. The average marks in Science subject of a class of 20 students is 68. If the marks of two students were misread are 48 and 65 of the actual marks 72 and 61 respectively, then what would be the correct average?
(1) 68.5 (2) 69 (3) 69.5 (4) 70 (5) 66

Q.19. A school team has eight volleyball players. A five-member team and a captain will be selected out of these eight players. How many different selections can be made ?
(1) 224 (2) 112 (3) 56 (4) 88 (5) None of these

Q.20. A bus started its journey from Ramgarh and reached Devgarh in 44 minutes with its average speed of 50 km/hour. If the average speed of the bus is increased by 5 km/hour, how much time will it take to cover the same distance? .
(1) 40 minutes (2) 38 minutes (3) 36 minutes (4) 31 minutes (5) 49 minutes

Q.21-25. In the following questions two equations numbered I and II are given. You have to solve both the equations and- Give answer
(1) If x> y (2) If x≥ y (3) If x< y
(4) If x ≤ y (5) If x = y or the relationship cannot be established.

Q.21. I. $x^2 - 1 = 0$ II. $y^2 + 4y + 3 = 0$
Q.22. I. $x^2 - 7x + 12 = 0$ II. $y^2 - 12y + 32 = 0$
Q.23. I. $x^3 - 371 = 629$ II. $y^3 - 543 = 788$
Q.24. I. $5x - 2y = 31$ II. $3x + 7y = 36$
Q.25. I. $2x^2 + 11x + 12 = 0$ II. $5y^2 + 27y + 10 = 0$

Q.26-30. Study the information carefully to answer the questions that follows.
In an annual function, 504 children participated. The ratio of number of girls to the number of boys is 5:3 respectively. Out of the total girls, 20% participated in dance and remaining girls participated in solo song, group song and drama in the ratio of 2:3:4 respectively. Two-third of the total boys participated in group song and remaining boys participated in solo song and dance in the ratio of 4:5 respectively.

Q.26. What is the **approximate** percentage of the boys who have participated in dance out of the total number of boys?
(1) 19% (2) 23% (3) 16% (4) 27% (5) 14%

Q.27. What is the **approximate** percentage of the girls participated in solo song out of all the total participants ?
(1) 11% (2) 15% (3) 6% (4) 20% (5) 18%

Q.28. What is the total number of girls who have participated in group song and drama together ?
(1) 192 (2) 196 (3) 184 (4) 168 (5) 175

Q.29. What is the ratio between number of boys to the number of girls respectively who have participated in solo song ?
(1) 1:2 (2) 2:1 (3) 4:3 (4) 3:2 (5) None of these

Q.30. What is the difference between the number of boys and girls who have participated in dance ?
(1) 63 (2) 35 (3) 28 (4)126 (5) None of these

Q.31. The sum of four consecutive even numbers is 284. What would be the smallest number ?
(1) 72 (2) 74 (3) 68 (4) 66 (5) 70

Q.32. If $\frac{(a-b)^2-(a+b)^2}{-4a} = \frac{x}{y}$, on simplifying the above mentioned equation, what will be the equation?
(1) xy = b (2) bx = y (3) by = x (4) ab = x (5) ay =x

Q.33. $\frac{1}{4}$ of $\frac{3}{5}$ of $\frac{6}{5}$ of a number is 54. What is the number ?
(1) 280 (2) 250 (3) 300 (4) 150 (5) 160

Q.34. The average age of the family of five members is 24. If the present age of youngest member is 8 years, then what was the average age of the family at the time of the birth of the youngest member ?
(1) 20 years (2) 16 years (3) 12 years (4) 18 years (5) 21 years

Q.35. A candidate appearing for an examination has to secure 35% marks to pass. But he secured only 40 marks and failed by 30 marks. What would be the maximum marks of test ?
(1) 280 (2) 180 (3) 200 (4) 150 (5) 210

Q.36. The length of a rectangular floor is twice its breadth. If Rs. 256 is required to paint the floor at the rate of Rs. 2 per square metres, then what would be the length of floor ?
(1) 16 meters (2) 8 meters (3) 12 meters (4) 32 meters (5) 20 meters

Q.37. Angle 'A' of the quadrilateral ABCD is 26° less than angle B. Angle B is twice angle C and angle C is 10° more than the angle D. What would be the measure of angle A ?
(1) 104° (2) 126° (3) 56° (4) 132° (5) 106°

Q.38. A number when subtracted by 1/7 of itself gives the same value as the sum of all the angles of a triangle. What is the number ?
(1) 224 (2) 210 (3) 140 (4) 350 (5) 187

Q.39. A man walked at a speed of 4 km/hr from point A to B and came back from point B to A at the speed of 6 km/hr. What would be the ratio between the time taken by man in walking from point A to B to point B to A respectively?
(1) 5:3 (2) 2:3 (3) 2: 1 (4) 4:3 (5) 3:2

Q.40. In every 30 minutes the time of a watch increases by 3 minutes. After setting the correct time at 5 a.m., what time will the watch show after 6 hours ?
(1) 10: 54 a.m. (2) 11:30 a.m. (3) 11: 36 a.m.
(4) 11 :42 a.m. (5) 11: 38 p.m.

Q.41-45. Study the following profile of parliament carefully and answer the questions given below it.
PROFILE OF PARLIAMENT IN YEAR XXXX.
Total members in Parliament = 640 (490 from Lok Sabha and 150 from Rajya Sabha)

Lok Sabha (No. of Members)	Party	Rajya Sabha (No. of Members)
280	A	90
180	B	45
30	Others	15
490	**TOTAL**	150
	SEX	
435	Males	120
55	Females	30
	RELIGION	
348	Hindus	85
42	Muslims	20
75	Sikhs	35
25	Christians	10
	PROFESSION	
300	Graduates	50
45	Businessmen	19
60	Educators	11
85	Unknown	70

Q.41. What is the **approximate** percentage of the Muslim members in Lok Sabha ?
(1) 9% (2) 11% (3) 13% (4) 14% (5) 7%

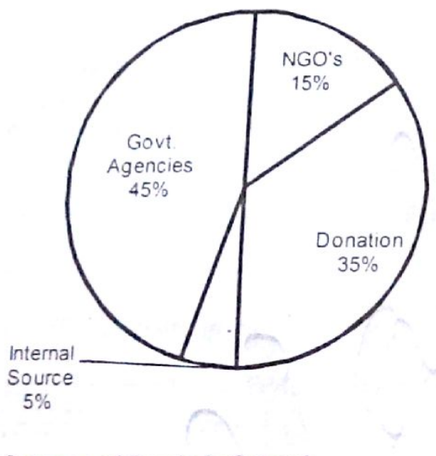
Q.42. In Rajya Sabha if 30 male members were replaced by 30 female members, then what is the ratio of male members to female members respectively ?
(1) 3 : 1 (2) 3 : 2 (3) 1 : 3 (4) 2 : 3 (5) 2 : 1

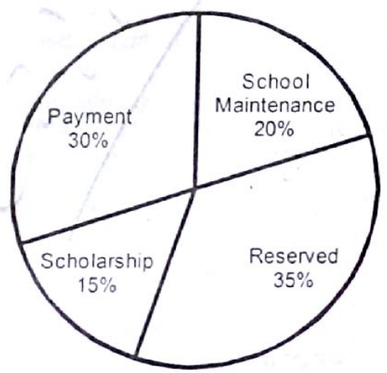
Q.43. What percentage of members in parliament are businessmen ?
(1) 8% (2) 20% (3) 30%
(4) 18% (5) 10%

Q.44. If all the 'others' party members of Lok Sabha join the party 'B' then what would be the ratio between members of party 'A' to the members of party 'B' respectively ?
(1) 3 : 2 (2) 6 : 5 (3) 4 : 3
(4) 7 : 6 (5) 4 : 5

Q.45. Out of total members of party 'B' in parliament, what percentage of the members belong to Rajya Sabha ?
(1) 30% (2) 35% (3) 25%
(4) 20% (5) 15%

Q.46-50. Study the following pie-charts carefully and answer the questions below it.
The entire fund that school gets from different sources is equal to Rs. 500 lakhs.





Sources of Funds in School **Uses of Funds by school**

Q.46. What is the difference between the funds acquired by school from NGO's and internal sources ?
(1) Rs. 50 lakhs (2) Rs. 45 lakhs (3) Rs. 75 lakhs
(4) Rs. 25 lakhs (5) None of these

Q.47. If the school managed 'school maintenance' from the 'government agencies' fund only, then how much fund from government agencies would still left for other use ?
(1) Rs. 120 lakhs (2) Rs. 150 lakhs (3) Rs. 110 lakhs
(4) Rs. 95 lakhs (5) None of these

Q.48. If scholarship has to be paid out of the donation fund, then what is the **approximate** percent of donation fund used for this purpose ?
(1) 43% (2) 53% (3) 37%
(4) 47% (5) 15%

Q.49. What is the total amount used by the school for payment ?
(1) Rs. 100 lakhs (2) Rs. 110 lakhs
(3) Rs. 150 lakhs (4) Rs. 140 lakhs
(5) None of these

Q.50. What amount of the fund is acquired by the school from government agencies ?
(1) Rs. 220 lakhs (2) Rs. 310 lakhs
(3) Rs. 255 lakhs (4) Rs. 225 lakhs
(5) None of these

TEST - 9
QUANTITATIVE APTITUDE

Q.1-10. What will come in place of question mark (?) in the following questions?

Q.1. $[(85)^2 \div 17 \times 34] \div 68 = ?$
(1) 170 (2) 212.5 (3) 340
(4) 510 (5) None of these

Q.2. $2^8 + 2^4 = ?$
(1) 172 (2) 312 (3) 272
(4) 256 (5) None of these

Q.3. $39.86 - 14.21 - 3.83 + 0.78 = ?$
(1) 22.6 (2) 23.6 (3) 21.8
(4) 19.6 (5) None of these

Q.4. 24% of 240 + 12% of 480 = ?
(1) 57.60 (2) 116.20 (3) 115.20
(4) 211.520 (5) None of these

Q.5. $\sqrt{\sqrt{4624} + \sqrt{5776}} = ?$
(1) 144 (2) 288 (3) 12
(4) 24 (5) None of these

Q.6. $480 + 50 \times 0.75 - 17.5 = ?$
(1) 500 (2) 400 (3) 300
(4) 450 (5) None of these

Q.7. (20% of 1450) – (30% of 890) = ?
(1) 23 (2) 21 (3) 27
(4) 31 (5) None of these

Q.8. $(14.8)^2 - (12.8)^2 = ?$
(1) 65.4 (2) 49.8 (3) 44.2
(4) 55.2 (5) None of these

Q.9. $\{(18)^3 + (29)^2\} - ? = 2876$
(1) 3197 (2) 3697 (3) 3797
(4) 4797 (5) None of these

Q.10. $\dfrac{18 \div ? \times 4.5}{9 \times 4 \div 6} = 6.75$
(1) 6.75 (2) 12.5 (3) 12 (4) 6 (5) None of these

Q.11-15. What should come in place of question mark (?) in the following number series?

Q.11. 1 6 21 66 201 ?
(1) 609 (2) 603 (3) 606 (4) 600 (5) None of these

Q.12. 14 33 76 167 ? 733
(1) 345 (2) 348 (3) 351 (4) 354 (5) None of these

Q.13. 2 5 16 57 240 ?
(1) 1215 (2) 1205 (3) 1225 (4) 1195 (5) None of these

Q.14. 286 ? 508 619 730 841
(1) 341 (2) 403 (3) 397 (4) 387 (5) None of these

Q.15. 9 73 198 ? 757 1269
(1) 396 (2) 594 (3) 404 (4) 414 (5) None of these

Q.16-20. What **approximate** value will come in place of question mark (?) in the following questions?

Q.16. $(17.94)^3 = ?$
(1) 6140 (2) 5830 (3) 5540 (4) 5130 (5) 6380

Q.17. $(1487 + 2186) \div (814 - 426 - 113) = ?$
(1) 13 (2) 26 (3) 21 (4) 5 (5) 32

Q.18. (425% of 1398) ÷ 59.96 = ?
(1) 1000 (2) 10 (3) 100 (4) 900 (5) 190

Q.19. $\sqrt{78888}$ × 9.86 = ?
(1) 2800 (2) 2710 (3) 2510 (4) 2990 (5) 2410

Q.20. 169.98 + 64.99 × 1.998 – 49.86 = ?
(1) 250 (2) 300 (3) 200 (4) 150 (5) 350

Q.21. In how many different ways can the letters of word 'IMPLEMENT' be arranged?
(1) 362880 (2) 22680 (3) 45360
(4) 90720 (5) None of these

Q.22. What will be the difference between the simple interest and compound interest accrued on an amount of Rs. 12000 at the end of 3 years @ 10 p.c.p.a. ?
(1) Rs 278 (2) Rs. 372 (3) Rs. 272
(4) Rs. 324 (5) None of these

Q.23. A 210 metres long train crosses a platform of equal length in 20 seconds. What is the speed of the train?
(1) 62.6 km/hr (2) 68.4 km/hr (3) 75.6 km/hr
(4) Can't be determind (5) None of these

Q.24. Four years ago the ratio of the ages of Salman and Aamir was 5:4 respectively. Eight years hence the ratio of their ages will be 13:11 respectively. What is Aamir's present age?
(1) 32 years (2) 40 years (3) 38 years
(4) 36 years (5) None of these

Q.25. A two digit number exceeds 30 percent of another two digit number by 44. If the sum of these two digit number is 200, which of the following is the difference between these two digit numbers?
(1) 32 (2) 40 (3) 16
(4) Data Inadequate (5) None of these

Q.26. Sudhir decided to donate 18% of her monthly salary to an Orphanage. On the day of donation he changed his mind and donated Rs. 12510 which was 125% of what he had decided earlier. How much is Sudhir's monthly salary?
(1) Rs. 46,600 (2) Rs. 50,000 (3) Rs. 48,300
(4) Rs. 55,600 (5) None of these

Q.27. In a function there are 10 men and 8 women. Each man shakes his hand with all the men and each women shakes her hands with all the women. Find the total number of handshakes?
(1) 64 (2) 73 (3) 81 (4) 96 (5) None of these

Q.28. The length and breadth of a rectangle are in the ratio of 8:5. If each of the sides of the rectangle is extended by 5 cm, the ratio of length and breadth becomes 7:5. Find the difference in the area of rectangle.
(1) 130 cm^2 (2) 155 cm^2 (3) 180 cm^2
(4) 95 cm^2 (5) None of these

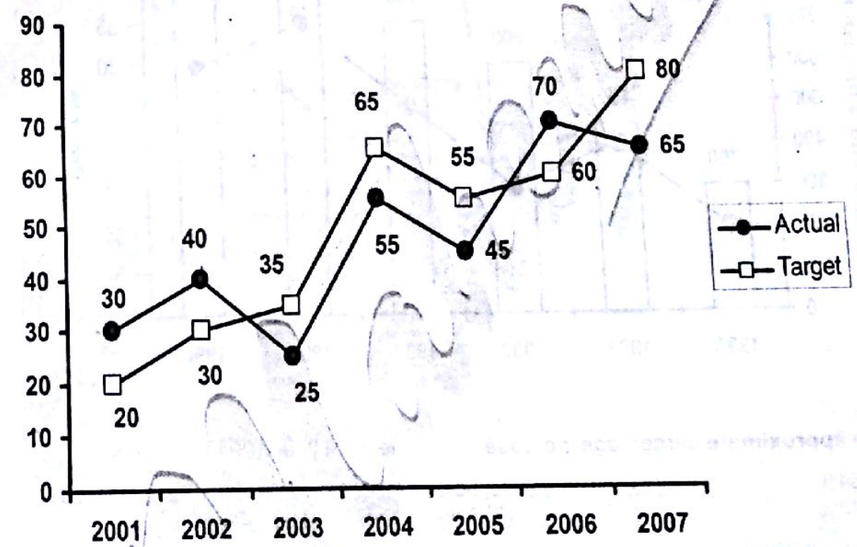
Q.29. If the numerator and the denominator of a fraction is increased by 3 and 4 repectively, the fraction becomes $\frac{4}{5}$ and if the numerator and denominator of the same fraction are increased by 7 and 3 respectively, the fraction becomes $\frac{4}{3}$. What is the original fraction?
(1) $\frac{4}{5}$ (2) $\frac{2}{3}$ (3) $\frac{5}{6}$ (4) $\frac{6}{7}$ (5) None of these

Q.30. A person bought 10 kg of rice at Rs. 10.50 per kg and 20 kg at Rs. 12 per kg. He mixed the two and sold the mixture at Rs. 12.40 per kg. What was the profit in this transaction?
(1) Rs. 27 (2) Rs. 30 (3) Rs. 36
(4) Rs. 40 (5) None of these

Q.31-35. In each of the following questions, two equations are given. You have to solve them and
Give answer (1) If x>y
Give answer (2) If x≥y
Give answer (3) If x<y
Give answer (4) If x≤y
Give answer (5) If x=y or relationship can not be established

Q.31. I. $12x^2 - 2x - 4 = 0$ II. $10y^2 + 2 = 9y$
Q.32. I. $8x^2 + 10x + 3 = 0$ II. $2y^2 + 5y + 3 = 0$
Q.33. I. $x^2 + x - 2 = 0$ II. $y^2 - 9y + 20 = 0$
Q.34. I. $x^2 + x - 12 = 0$ II. $y^2 + 4y = 21$
Q.35. I. $6x^2 + x - 1 = 0$ II. $8y^2 + 10y + 3 = 0$

Q.36-40. Study the following graph and answer the following questions:-
Following graph shows the actual & target production of a company over the period (in thousand tonnes)



Q.36. The actual production in 2005 is what percent of the target production of 2007?
(1) 44% (2) 56.25% (3) 43.75%
(4) 37.5% (5) None of these

Q.37. What will be the ratio between above and below the average target production?
(1) 3 : 4 (2) 2 : 3 (3) 3 : 2
(4) 4 : 3 (5) None of these

Q.38. What is the difference between the total actual production and total target production in all the years taken together?
(1) 15000 tonnes (2) 12000 tonnes (3) 9000 tonnes
(4) 20000 tonnes (5) None of these

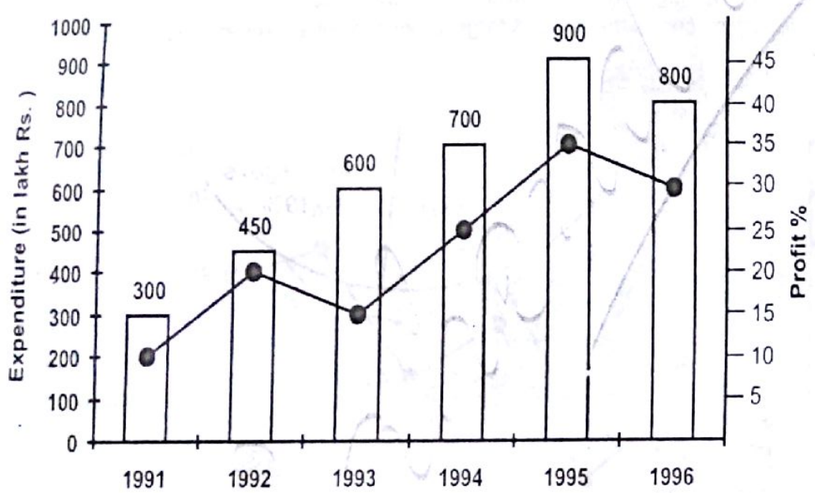
Q.39. In which of the following years the percentage production of actual with respect to target is the maximum?
(1) 2001 (2) 2005 (3) 2002
(4) 2007 (5) None of these

Q.40. The target production in the year 2001, 2003 and 2005 together is what percent of actual production of 2002, 2004 and 2006 together?

(1) $26\frac{1}{3}\%$ (2) $37\frac{1}{2}\%$ (3) $66\frac{4}{3}\%$
(4) $66\frac{2}{3}\%$ (5) None of these

Q.41-45. Study the following graph carefully and answer these questions:-

Expenditure and profit percent of a company in different years



Q.41. The **approximate** percentage increase in Income from year 1991 to 1992 is-

(1) 64% (2) 56% (3) 50%
(4) 70% (5) 75%

Q.42. What is the average percentage profit for given years?

(1) 24.5% (2) 18.5% (3) 22.5%
(4) 16.5% (5) None of these

Q.43. What is the ratio of total income to total expenditure of all the years taken together?

(1) 289 : 119 (2) 375 : 289 (3) 469 : 375
(4) 563 : 469 (5) None of these

Q.44. What is the difference between the Income of year 1995 and 1993?

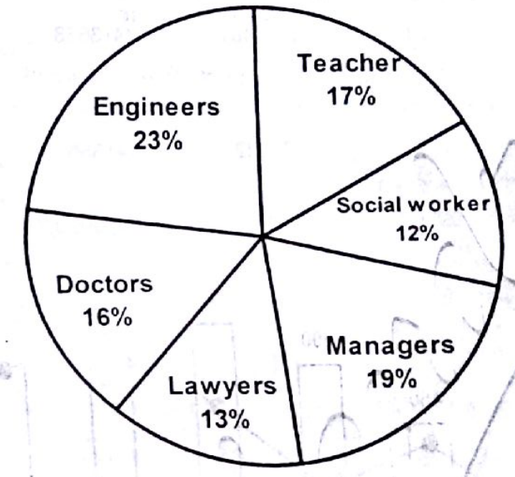
(1) Rs. 460 lakhs (2) Rs. 525 lakhs (3) Rs. 540 lakhs
(4) Rs. 580 lakhs (5) None of these

Q.45. What is total amount of profit earned in given years?

(1) Rs. 960 lakhs (2) Rs. 920 lakhs (3) Rs. 880 lakhs
(4) Rs. 940 lakhs (5) None of these

Q.46-50. Study the following pie-chart carefully and answer the questions given below:-

Survey conducted on 12000 people of various professionals and percentage of female professionals



Percentage of Female professionals	
Social workers	75%
Managers	30%
Lawyers	15%
Doctors	40%
Engineers	50%
Teachers	35%

Q.46. What is the ratio of the male Doctors to the female Managers?

(1) 51 : 38 (2) 14 : 9 (3) 21 : 17
(4) 32 : 19 (5) None of these

Q.47. The total number of engineers is approximate what percent of the total number of Lawyers in the town?

(1) 165% (2) 138% (3) 154%
(4) 190% (5) 177%

Q.48. What is the difference between the total number of male and female professionals in the town?

(1) 1140 (2) 2280 (3) 2190
(4) 1840 (5) None of these

Q.49. The number of female social workers is what percent of the female engineers in the town? (Rounded upto two digits after decimal)

(1) 78.26% (2) 74.46% (3) 72.36%
(4) 76.46% (5) None of these

Q.50. What is the ratio of number of male teachers to the number of male lawyers in the town?

(1) 2 : 3 (2) 3 : 2 (3) 1 : 1
(4) 2 : 1 (5) None of these

TEST-10
QUANTITATIVE APTITUDE

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

Q.1. $\sqrt{11449} \times \sqrt{6241} - (54)^2 = \sqrt{?} + (74)^2$

(1) 3844 (2) 3721 (3) 3481 (4) 3638 (5) None of these

Q.2. $\left[\left(3\sqrt{8} + \sqrt{8}\right) \times \left(8\sqrt{8} + 7\sqrt{8}\right)\right] - 98 = ?$

(1) $2\sqrt{8}$ (2) $8\sqrt{8}$ (3) 382 (4) 386 (5) None of these

Q.3. 3463 ×295 - 18611 = ? + 5883

(1) 997091 (2) 997071 (3) 997090 (4) 999070 (5) None of these

Q.4. $\frac{28}{65} \times \frac{195}{308} \div \frac{39}{44} + \frac{5}{26} = ?$

(1) $\frac{1}{3}$ (2) 0.75 (3) $1\frac{1}{2}$ (4) $\frac{1}{2}$ (5) None of these

Q.5. $(23.1)^2 + (48.6)^2 - (39.8)^2 = ? + 1147.69$

(1) $(13.6)^2$ (2) $\sqrt{12.8}$ (3) 163.84 (4) 12.8 (5) None of these

Q.6-10. What **approximate** value should come in place of the question mark (?) in the following questions?
(Note : You are not expected to calculate the exact value.)

Q.6. $\sqrt[3]{4663} + 349 = ? \div 21.003$

(1) 7600 (2) 7650 (3) 7860 (4) 7560 (5) 7680

Q.7. 39.897% of 4331 + 58.779% of 5003 = ?

(1) 4300 (2) 4500 (3) 4700 (4) 4900 (5) 5100

Q.8. 59.88 ÷ 12.21 × 6.35 = ?

(1) 10 (2) 50 (3) 30 (4) 70 (5) 90

Q.9. 43931.03 ÷ 2111.02 × 401.04 = ?

(1) 8800 (2) 7600 (3) 7400 (4) 9000 (5) 8300

Q.10. $\sqrt{6354} \times 34.993 = ?$

(1) 3000 (2) 2800 (3) 2500 (4) 3300 (5) 2600

Q.11-15. In the following serices only one number is **wrong**. Find out the **wrong** number.

Q.11. 9050 5675 3478 2147 1418 1077 950

(1) 3478 (2) 1418 (3) 5675 (4) 2147 (5) 1077

Q.12. 7 12 40 222 1742 17390 208608

(1) 7 (2) 12 (3) 40 (4) 1742 (5) 208608

Q.13. 6 91 584 2935 11756 35277 70558

(1) 91 (2) 70558 (3) 584 (4) 2935 (5) 35277

Q.14. 1 4 25 256 3125 46656 823543

(1) 3125 (2) 823543 (3) 46656 (4) 25 (5) 256

Q.15. 8424 4212 2106 1051 526.5 263.25 131.625

(1) 131.625 (2) 1051 (3) 4212 (4) 8424 (5) 263.25

Q.16. Six-eleventh of a number is equal to twenty two percent of second number. Second number is equal to the one-fourth of third number. The value of the third is 2400. What is the 45% of first number ?

(1) 109.8 (2) 111.7 (3) 117.6 (4) 123.4 (5) None of these

Q.17. An HR Company employ 4800 people, out of which 45 percent are males and 60 percent of the males are either 25 years or older. How many males are employed in HR Company who are younger than 25 years ?

(1) 2640 (2) 2160 (3) 1296 (4) 864 (5) None of these

Q.18. The average marks in English subject of a class of 24 students is 56. If the marks of the students were misread as 44, 45 and 61 of the actual marks 48,59 and 67 respectively, then what would be the correct average ?

(1) 56.5 (2) 59 (3) 57.5 (4) 58 (5) None of these

Q.19. In a test, a candidate secured 468 marks out of maximum marks 'A'. If the maximum marks 'A' were converted to 700 marks, he would have secured 336 marks. What were the maximum marks of the test ?

(1) 775 (2) 875 (3) 975 (4) 1075 (5) None of these

Q.20. The simple interest accrued on an amount of Rs. 22,500 at the end of four years is Rs. 10,800. What would be the compound interest accrued on the same amount at the same rate at the end of two years ?

(1) Rs. 16,908 (2) Rs. 5,724 (3) Rs. 28,224 (4) Rs. 8,586 (5) None of these

Q.21. Rubina could get equal number of Rs. 55, Rs. 85 and Rs. 105 tickets for a movie. She spents Rs. 2,940 for all the tickets. How many of each did she buy ?

(1) 12 (2) 14 (3) 16
(4) Can't be determined (5) None of these

Q.22. Ramola's monthly income is three times Ravina's monthly income. Ravina's monthly income is fifteen percent more than Ruchira's monthly income. Ruchira's monthly income is Rs. 32,000. What is Ramola's **Annual** income ?

(1) Rs. 1,10,400 (2) Rs. 13,24,800 (3) Rs. 36,800 (4) Rs. 52,200 (5) None of these

Q.23. In an Entrance Examination Ritu scored 56 percent marks, Smita scored 92 percent marks and Rina scored 634 marks. The maximum marks of the examination are 875. What are the average marks scored by all the three girls together ?

(1) 1929 (2) 815 (3) 690 (4) 634 (5) None of these

Q.24. The respective ratio between the present age of Manisha and Deepali is 5 : X. Manisha is 9 years younger than Parineeta. Parineeta's age after 9 years will be 33 years. The difference between Deepali's and Manisha's age is same as the present age of Parineeta. What will come in place of X ?

(1) 23 (2) 39 (3) 15
(4) Can't be determined (5) None of these

Q.25. Seema bought 20 pens, 8 packets of wax colours, 6 calculators and 7 pencil boxes. The price of one pen is Rs. 7, one packet of wax colour is Rs. 22, one calculator is Rs. 175 and one pencil box is Rs. 14 more than the combined price of one pen and one packet of wax colours. How much amount did Seema pay to the shopkeeper ?

(1) Rs. 1,491 (2) Rs. 1,725 (3) Rs. 1,667 (4) Rs. 1,527 (5) None of these

Q.26-30. Study the given information carefully to answer the questions that follow.
An urn contains 4 green, 5 blue, 2 red and 3 yellow marbles.

Q.26. If four marbles are drawn at random, what is the probability that two are blue and two are red ?

(1) $\frac{10}{1001}$ (2) $\frac{9}{14}$ (3) $\frac{17}{364}$ (4) $\frac{2}{7}$ (5) None of these

Q.27. If eight marbles are drawn at random, what is the probability that there are equal number of marbles of each colour ?

(1) $\frac{4}{7}$ (2) $\frac{361}{728}$ (3) $\frac{60}{1001}$ (4) $\frac{1}{1}$ (5) None of these

Q.28. If two marbles are drawn at random, what is the probability that both are red or at least one is red?

(1) $\frac{26}{91}$ (2) $\frac{1}{7}$ (3) $\frac{199}{364}$

(4) $\frac{133}{191}$ (5) None of these

Q.29. If three marbles are drawn at random, what is the probability that at least one is yellow ?

(1) $\frac{1}{3}$ (2) $\frac{199}{364}$ (3) $\frac{165}{364}$

(4) $\frac{3}{11}$ (5) None of these

Q.30. If three marbles are drawn at random, what is the probability that none is green ?

(1) $\frac{2}{7}$ (2) $\frac{253}{728}$ (3) $\frac{10}{21}$

(4) $\frac{14}{91}$ (5) None of these

Q.31-35. Study the table carefully to answer the questions that follow:-

Number of people visiting six different Super-markets and the percentage of Men, Women and Children visiting those Super-markets

Names of the Super-markets	Total Number of People	Percentage of Men	Women	Children
A	34560	35	55	10
B	65900	37	43	20
C	45640	35	45	20
D	55500	41	26	33
E	42350	06	70	24
F	59650	24	62	14

Q.31. What is the respective ratio of number of women visiting Super-markets A to those visiting Super-market C ?

(1) 35 : 37 (2) 245 : 316 (3) 352 : 377
(4) 1041 : 1156 (5) None of these

Q.32. Number of men visiting Super-market D forms **approximately** what percent of the total number of people visiting all the Super-markets together ?

(1) 11 (2) 5.5 (3) 13
(4) 9 (5) 7.5

Q.33. Number of children visiting Super-market C forms what percent of number of children visiting Super- market F ? (rounded off to two digits after decimal)

(1) 91.49 (2) 49.85 (3) 121.71
(4) 109.30 (5) None of these

Q.34. What is the total number of children visiting Super-markets B and D together ?

(1) 18515 (2) 28479 (3) 31495
(4) 22308 (5) None of these

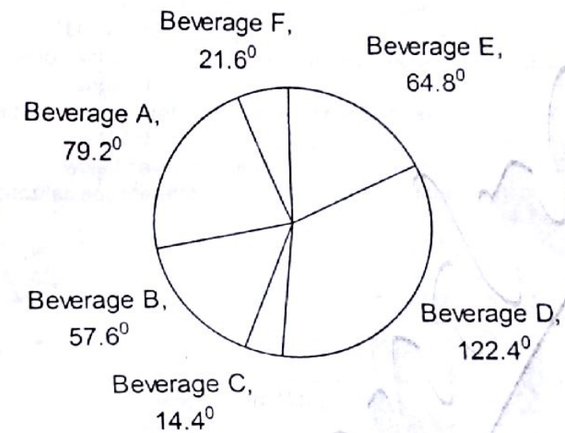
Q.35. What is the average number of women visiting all the Super-markets together ?

(1) 24823.5 (2) 22388.5 (3) 26432.5
(4) 20988.5 (5) None of these

Q.36-40. Study the following pie -chart and answer the questions given below :

Preferences of students among six beverages in terms of degree of angle in the pie-chart

Total No. of students = 6800



Q.36. The number of students who prefer Beverage C are **approximately** what percent of the number of students who prefer Beverage D ?

(1) 7 (2) 12 (3) 18 (4) 22 (5) 29

Q.37. How many students prefer Beverage B and Beverage E together ?

(1) 2312 (2) 2313 (3) 2315 (4) 2318 (5) None of these

Q.38. What is the difference between the total number of students who prefer Beverage A and C together and the total number of students who prefer Beverage D and F together ?

(1) 959 (2) 955 (3) 952 (4) 954 (5) None of these

Q.39. The number of students who prefer Beverage E and F together are what percent of the total number of students ?

(1) 18 (2) 14 (3) 26 (4) 24 (5) None of these

Q.40. What is the respective ratio between the number of students who prefer Begerage F and the number of students who prefer Beverage A ?

(1) 3 : 11 (2) 3 : 13 (3) 6 : 11 (4) 5 : 11 (5) None of these

Q.41-45. Study the table carefully to answer the questions that follow:

Percentage of Marks obtained by Different Students in Different Subjects of MBA

Stu./ Sub.	Strategic Management	Brand Management	Compensation Management	Consumer Behavior	Service Marketing	Training & Development
Max. Mark	(150)	(100)	(150)	(125)	(75)	(50)
Anushka	66	75	88	56	56	90
Archit	82	76	84	96	92	88
Arpan	90	88	96	76	84	86
Garvita	90	88	96	76	84	86
Gunit	64	70	68	72	68	74
Pranita	48	56	50	64	64	58

Q.41. How many marks did Anushka get in all the Subjects together ?
(1) 369 (2) 463 (3) 558 (4) 496 (5) None of these

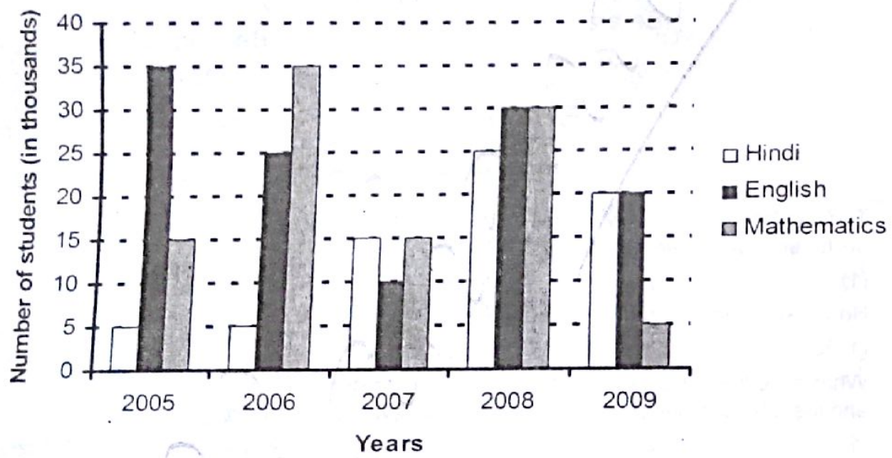
Q.42. Who has scored the highest total marks in all the subjects together ?
(1) Archit (2) Gunit (3) Pranita (4) Garvita (5) Arpan

Q.43. Marks obtained by Garvita in Brand Management are what percent of marks obtained by Archit in the same Subjects ? (rounded off to two digits after decimal)
(1) 86.36 (2) 101.71 (3) 115.79 (4) 133.33 (5) None of these

Q.44. How many Students have scored the highest marks in more than one Subject ?
(1) Three (2) Two (3) One (4) None (5) None of these

Q.45. What are the average marks obtained by all students together in Compensation Management ?
(1) 116 (2) 120 (3) 123 (4) 131 (5) None of these

Q.46-50. Study the following graph and answer the questions given below :
No. of students (in thousands) who opted for three different specializations during the given five years in a University



Q.46. The total number of students who opted for Mathematics in the years 2005 and 2008 together are **approximately** what percent of the total number of students who opted for all three subjects in the same years ?
(1) 38 (2) 28 (3) 42 (4) 32 (5) 48

Q.47. Out of the total number of students who opted for the given three subjects, in the year 2009, 38% were girls. How many boys opted for Mathematics in the same year ?
(1) 1322 (2) 1332 (3) 1312
(4) Can't be determined (5) None of these

Q.48. What is the respective ratio between the number of students who opted for English in the years 2006 and 2008 together and the number of students who opted for Hindi in the year 2005 and 2009 together ?
(1) 11 : 5 (2) 12 : 7 (3) 11 : 7 (4) 12 : 5 (5) None of these

Q.49. If the total number of students in the University in the year 2007 was 455030, then the total number of students who opted for the given three subjects were **approximately** what percent of the total students ?
(1) 19 (2) 9 (3) 12 (4) 5 (5) 23

Q.50. What is the total number of students who opted for Hindi and who opted for Mathematics in the years 2006, 2007 and 2009 together ?
(1) 97000 (2) 93000 (3) 85000 (4) 96000 (5) None of these

EXPLANATION

EXPLANATION/BPO/QUANTITATIVE APTITUDE/01

Q.1.(2) $? = (7 - 4 + 8) + \left(\frac{3}{5} - \frac{2}{5} + \frac{4}{5}\right)$

$= 11 + \left(\frac{3-2+4}{5}\right)$

$= 11 + \frac{5}{5}$

$= 12$

Q.2.(1) $20 \times 0.25 = ? + 5$

$5 = ? + 5$

$= 0$

Q.3.(1) $? = \frac{16-12+3}{23-6}$

$= \frac{7}{17}$

Q.4.(3) $? = \frac{20 \times 3 \times 30}{4 \times 18}$

$= 25$

Q.5.(5) $? = 32 + 16 + 20$

$= 68$

Q.6.(5) Total production of company S is the maximum.

Q.7.(2) Ratio = 115 : 145

= 23 : 29

Q.8.(3) Percent $= \frac{95}{215} \times 100$

= 44.18

= 45 (approx)

Q.9.(3) Percent decrease $= \frac{15}{45} \times 100$

= 33 (approx)

Q.10.(1) Total production = 240 lakh tonnes

Q.11.(4) We can't determined

Q.12.(4) No. of girls $= 2500 \times \frac{1}{5}$

= 500

Number of boys = (2500 – 500)

= 2000

Number of boys passed $= 2000 \times \frac{85}{100}$

= 1700

Number of passed girls $= 500 \times \frac{60}{100}$

= 300

Percentage of passed students

$= \frac{2000}{2500} \times 100$

= 80%

Q.13.(4) $l \times b = 15\ (l + b)$.....(I)

$40 \times b = 15\ (40 + b)$

$40b = 600 + 15b$

$25b = 600$

$b = 24$

Perimeter = 2 (40+24)

= 2 × 64

= 128mt.

Q.14.(4) Let the cost of chair be Rs. 100,

Cost price of the chair.

$= 100 \times \frac{3}{4}$

= Rs. 75

Selling price $= 75 \times \frac{120}{100}$

= Rs. 90

Percent profit $= \frac{15}{75} \times 100$

= 20%

Q.15.(1) Nikunj's persent age = 10 - 5

= 5 years

Manish's present age = 15+5

= 20 years

Q.16.(3) $x \times \frac{2}{3} \times \frac{25}{100} = 10$

$x \times \frac{2}{3} \times \frac{1}{4} = 10$

$x = 60$

Q.17.(2) $\frac{\sqrt{?}}{14} = \frac{8}{14}$

$\sqrt{?} = 8$

$? = 64$

Q.18.(3) $\frac{11}{13} = 0.84, \frac{5}{6} = 0.83,$

$\frac{7}{9} = 0.77, \frac{6}{8} = 0.75$

Descending order

$= \frac{11}{13}, \frac{5}{6}, \frac{7}{9}, \frac{6}{8}$

Q.19.(5) Circumference of the circle

$132 = 2 \times \frac{22}{7} \times r$

r = 21 mt

Area of the circle = πr^2

$= \frac{22}{7} \times 21 \times 21$

= 1386 mt^2

Q.20.(3) Population of the city after 3 years

$= 80000 \times \frac{105}{100} \times \frac{105}{100} \times \frac{105}{100}$

= 92610

Q.21.(3) ×3, ÷2, ×3, ÷2,.....

Q.22.(2) $-2^3, +3^3, -4^3, +5^3, -6^3$

Q.23.(2) +1×0.5, +1×1, +1×1.5, +1×2, +1×2.5

Q.24.(4) $\times 1-1^2, \times 2-2^2, \times 3-3^2, \times 4-4^2, \times 5-5^2$

Q.25.(4) ÷2+1, ÷2+2, ÷2+3, ÷2+4, ÷2+5

Q.26.(5) Percent $= \frac{3180}{7560} \times 100$

= 42% (approx)

Q.27.(5) Percent increase $= \frac{50}{230} \times 100$

= 21.73

= 22% (approx)

Q.28.(3) Percent decrease $= \frac{90}{250} \times 100$

= 36%

Q.29.(5) Percent $= \frac{510}{1240} \times 100$

= 41.12%

Q.30.(5) Average production $= \frac{910}{4}$

= 227.5 lakh tonnes

Q.31.(4) Expenditure $= 20 \times \frac{100}{120}$

= 16 crore (approx)

Q.32.(2) Expenditure of company B in 2006

$= 28 \times \frac{100}{140}$

= 20 cr.

Profit= 28 -20

= Rs. 8 cr.

Q.33.(4) Ratio was maximum in 2003.

Q.34.(1) Total percent profit of both companies is maximum in 2006.

Q.35.(3) Let the income of company A in 2004 and 2005 be Rs. 100

Expenditure of company A in 2004

$= 100 \times \frac{100}{140}$

Expenditure of company A in 2005

$= 100 \times \frac{100}{120}$

Ratio $= \frac{1000}{14} : \frac{1000}{12}$

= 6 : 7

Q.36.(1) I. $x = \frac{5}{4} \times (-4.5)$

= -5.625

II. y = -4.5

x < y

Q.37.(2) I. $x = \pm 43$

II. y = 43

$x \leq y$

Q.38.(4) On solving equation (1) and (2)

$y = -5$

$x = 11$

$x > y$

Q.39.(5) I. $x^2 + 12x + 4x + 48 = 0$

$x(x+12) + 4(x+12) = 0$

$(x+12)(x+4) = 0$

$x = -4, -12$

II. $y^2 + 11y + 3y + 33 = 0$

$y(y+11) + 3(y+11) = 0$

$(y+11)(y+3) = 0$

$y = -3, -11$

relation can't be established

Q.40.(5) I. $x^2 + 21x + 2x + 42 = 0$

$x(x+21) + 2(x+21) = 0$

$(x+21)(x+2) = 0$

$x = -2, -21$

II. $y^2 + 14y + 2y + 28 = 0$

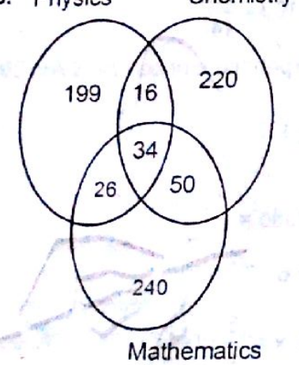
$y(y+14) + 2(y+14) = 0$

$(y+14)(y+2) = 0$

$y = -2, -14$

relation can't be established

Q.41-45.



Q.41.(2) Number of failed students

$= 1000 - (199 + 220 + 240 + 16 + 50 + 26 + 34)$

$= 1000 - 785$

$= 215$

Percent $= \frac{215}{1000} \times 100$

$= 21.5$

Q.42.(4) Percent $= \frac{659}{1000} \times 100$

$= 65.9$

Q.43.(1) Number of students $= 16 + 50 + 26 + 34$

$= 126$

Q.44.(1) Percent $= \frac{34}{92} \times 100$

$= 36.95\%$

Q.45.(3) Ratio $= (34 + 26) : (34 + 16)$

$= 60 : 50$

$= 6 : 5$

Q.46.(4) Because the number of boys or girls is not given. So, number of students can not be obtained.

Q.47.(1) From I

Area of square $= \frac{1}{2}$ (diagonal)^2

$= \frac{1}{2} \times 60 \times 60$

$= 1800$ cm^2

So, only statement I is necessary.

Q.48.(2) From II

$10 \times 16 = 4 \times x$

$x = 40$ days

So, only statement II is necessary.

Q.49.(5) From I

Downstream rate $= \frac{24}{4}$

$= 6$ km/hrs.

From II

Upstream rate $= \frac{24}{6}$

$= 4$ km/hrs

From I and II

Rate in still water $= \frac{1}{2}(6+4)$

$= 5$ km/hrs.

So, both statements together are necessary.

Q.50.(4) Because invested amount is not known. So rate of interest can not be calculated.

EXPLANATION/BPO/QUANTITATIVE APTITUDE/02

Q.1.(3) Total population =

$64 \times \frac{76}{100} + 50 \times \frac{75}{100}$

$= 48.64 + 37.5$

$= 86.14$ lacs.

Q.2.(3) Ratio $= 12.5 : 120$

$= 25 : 24$

Q.3.(5) Total number $= 45 \times \frac{20}{100}$

$= 9$ lacs

Q.4.(3) Reqd. increase $= \frac{9.5}{37.5} \times 100$

$= 25\%$ (Approx)

Q.5.(4) Sum $= 32 + 36$

$= 68$ lacs.

Q.6.(5) $? = 153 + 156$

$= 309$

Q.7.(1) $? = 21.5 + 201$

$= 222.5$

Q.8.(1) $? = 4 \times 2 \times 4$

$= 32$

Q.9.(3) $? = 8392.5956 - 373.181$

$= 8019.4146$

Q.10.(2) $? = \frac{65}{2}$

$= 32.5$

Q.11.(2) Reasoning

Q.12.(2) Years 2005

Q.13.(1) Percent decrease $= \frac{10}{42} \times 100$

$= 24\%$ (approx)

Q.14.(5) Average $= \frac{263}{6} = 44$ (approx)

Q.15.(3) Percentage $= \frac{86}{79} \times 100$

$= 109\%$ (approx)

Q.16.(1) $\times 0.5+7, \times 1+6, \times 1.5+5, \times 2+4, \times 2.5+3$

Q.17.(3) $\times 1+7 \times 1, \times 2+6 \times 2, \times 3+5 \times 3, \times 4+4 \times 4, \times 5+3 \times 5, \times 6+2 \times 6$

Q.18.(2) $\times 1.5, \times 2.5, \times 3.5,$--------

Q.19.(5) +10, +22, +34, +46, +58

+12 +12 +12 +12

Q.20.(4) $-6^3, -5^3, -4^3, -3^3, -2^3$

Q.21.(5) Ratio $= 480 : 720$

$= 2 : 3$

Q.22.(4) Average number $= \frac{3390}{6}$

$= 565$

Q.23.(2) Difference $= 720 - 560$

$= 160$

Q.24.(5) Total number $= 2750$

Q.25.(3) Year 2003 and 2004

Q.26.(3) Saving $= 4500$ /-

Next year saving $= 15390 - 9630$

$= 5760$/-

% increase $= \frac{1260}{4500} \times 100$

$= 28\%$

Q.27.(2) Ratio of profit of A, B and C $= 24000 \times 4 : 32000 \times 5 : 48000 \times 6$

$= 3 : 5 : 9$

B's share $= 7650 \times \frac{5}{17}$

$=$ ₹ 2250 /-

Q.28.(1) $\frac{A}{B+C} = \frac{3}{7}$

A's share

$12540 \times \frac{3}{10}$

$=$ ₹ 3762 /-

$\frac{B}{A+C} = \frac{2}{9}$

B's share

$12540 \times \frac{2}{11}$

$=$ ₹ 2280 /-

Difference $= 3762 - 2280$

$=$ ₹ 1482 /-

Q.29.(2) Side of first square $= 6$ cm.

Area of first square $= 36$ cm.^{2}

Side of second square $= 8$ cm.

Area of second square $= 64$ cm.^{2}

Area of third square $= 36 + 64$

$= 100$ cm.^{2}

Side of third square $= 10$ cm.

Required perimeter $= 10 \times 4$

$= 40$ cm.

Q.30.(5) Total ways $= \frac{10!}{2! \times 3!}$

$= 302400$

Q.31.(3) Ratio = 876 : 948
= 73 : 79

Q.32.(5) Percentage increase = $\frac{546}{876} \times 100 = 62\%$

Q.33.(1) Sum = 2409+1975= 4384

Q.34.(2) Percentage = $\frac{2370}{2190} \times 100$
= 108 (approx)

Q.35.(4) Difference = 1185–730 = 455

Q.36.(4) Direction is not given

Q.37.(5) From I and II let the income in 1998 be ₹ x

$x \times \frac{125}{100} \times \frac{125}{100} \times \frac{125}{100} = 10000000$

x = 51.2 lacs

So, inmome in 2001

$= 51.2 \times \frac{125}{100} \times \frac{125}{100} \times \frac{125}{100}$

₹ 1000 lacs

So both statements are necessary.

Q.38.(3) Marks in English = 430–336
= 94

From Statement II,

Marks in English = 53.75+8
= 61.75

So, either of the statements are necessary.

Q.39.(5) From I and II

x+10 = 5x+10 – 10

x+10 = 5x

4x=10

x = 2.5 years

So, both statements are necessary.

Q.40.(3) From I.

B's share = 507+54
= ₹ 561/-

From II,

A+B+C = 1521

A+C = B+399

2B = 1122

B = = ₹ 561/-

Q.41.(4) I. $34x^2+17x-6x-3 = 0$

17x(2x+1)–3(2x+1) = 0

(2x + 1) (17x - 3) = 0

$x = -\frac{1}{2}, \frac{3}{17}$

II. $51y^2 - 68y-9y+12 = 0$

17y(3y–4)–3(3y–4) = 0

(3y - 4) (17 y - 3) = 0

$y = \frac{4}{3}, \frac{3}{17}$

∴ x≤y

Q.42.(1) I. $2 \times^5 \times \frac{1}{x^2} = 128$

$2x^3 = 128$

$x^3 = 64$

x = 4

II. $\frac{y^9}{y^{11}} = \frac{3}{24}$

$\frac{1}{y^2} = \frac{1}{8}$

$y = \pm 2\sqrt{2}$

∴ x>y

Q.43.(5) From eq. (I) and (II),

77x+110y=374

77x+91y=336

x = 2

y = 2

∴ x=y

Q.44.(5) I. x = 2.5

II. y+6.5 = 6y–6

5y = 12.5

y = 2.5

∴ x=y

Q.45.(1) I. $3x^2 - 9x-7x+21= 0$

3x (x–3) –7 (x–3)= 0

(x -3) (3x - 7) =0

$x=3, \frac{7}{3}$

II. $6y^2+18y+7y+21= 0$

6y(y+3)+7(y+3)= 0

(y + 3) (6y + 7) = 0

$y=-3, -\frac{7}{6}$

∴ x>y

Q.46.(5) 101+124–?=100

? = 125 (approx)

Q.47.(2) 12×14.5+124+?=700

?=700–298= 400 (approx)

Q.48.(4) $34 \times 18 + \frac{?}{23} = 631$

? = 440

Q.49.(2) ? = 4168+13764
= 141850 (approx)

Q.50.(3) 294+?=1035

? = 740 (approx)

EXPLANATION/BPO/QUANTITATIVE APTITUDE/03

Q.1.(2) $? = 54 \times \frac{2}{3} + 210 \times \frac{1}{3}$

? = 106

Q.2.(1) $\frac{1}{164} \times \frac{?}{84} = \frac{1}{16} \times \frac{1}{287}$

$? = \frac{164 \times 84}{4592}$

? = 3

Q.3.(4) $\frac{19}{23} \times \frac{529}{361} = \frac{41}{19} - ?$

$? = \frac{41}{19} - \frac{23}{19}$

$? = \frac{18}{19}$

Q.4.(1) 24.5 + 16 = 2268 ÷ ?

$? = \frac{2268}{40.5}$

? = 56

Q.5.(4) ? = 9228 – 3114

? = 6114

Q.6.(1) $? = \frac{40}{0.04} + 400$

? = 1400 (approx)

Q.7.(5) $? = \frac{3624 \times 25}{145}$

? = 625 (approx)

Q.8.(3) $64 + 19 = \frac{84000}{?}$

$? = \frac{84000}{83}$

? = 1000 (approx)

Q.9.(4) ? = 295 + 868 + 428 – 186

? = 1405 (approx)

Q.10.(2) $? = \frac{7 \times 4 \times 201 \times 7}{5 \times 42}$

? = 188 (approx)

Q.11.(3) ×7– 1, ×6 – 2, ×5– 3, ...

Q.12.(1) ×2+ 1, ×2+ 2, ×2+ 3, ...

Q.13.(4) ÷4×5, ÷4×6, ÷4×7, ...

Q.14.(2) ×2+0, ×3+1, ×4+2, ×5+3, ...

Q.15.(1) $\times 1+1^2, \times 2+2^2, \times 3+3^2$, ...

Q.16.(2) (I) $x^2 = \frac{1}{4}$

$x = \pm \frac{1}{2}$

(II) $2y^2 + 7y + 3 = 0$

$2y^2 + 6y + y + 3 = 0$

2y(y+3) + 1(y+3) = 0

(2y +1) (y + 3) = 0

$y = -\frac{1}{2}, -3$

∴ x ≥ y

Q.17.(3) (I) 24x + y = 24 _____ (i)

(II) 6x + y = 9 _____ (ii)

From (i) and (ii)

$x = \frac{5}{6}$

and y = 4

∴ y > x

Q.18.(1) (I) $\frac{1}{x} = x \times \frac{1}{x}$

x = + 1

(II) $y^2 = 4 \times y^4$

$1 = 4y^2$

$y^2 = \frac{1}{4}$

$y = \pm \frac{1}{2}$

∴ x > y

Q.19.(2) (I) $2x^2 = 23x - 63$

$2x^2 - 23x + 63 = 0$

$2x^2 - 14x - 9x + 63 = 0$

(2x – 9) (x – 7) = 0

$x = \frac{9}{2}, 7$

(II) 2y (y – 4) = y

$2y^2 - 8y = y$

$2y^2 = 9y$

$y = \frac{9}{2}$

∴ x ≥ y

Q.20.(5) (I) $\frac{8}{21}x = \frac{2}{7}$

$x = \frac{3}{4}$

(II) $16y^2 - 24y + 9 = 0$

$16y^2 - 12y - 12y + 9 = 0$

$4y(4y - 3) - 3(4y - 3) = 0$

$(4y - 3)(4y - 3) = 0$

$y = \frac{3}{4}$

$\therefore x = y$

Q.21.(1) Let the first, second, third and fourth number be a, b, c and d respectively.

a+b+c+d = 64 _____ (i)

$a+3 = b - 3 = 3c = \frac{d}{3}$

i.e, a+3 = b – 3

b = a+6 _____ (ii)

$c = \frac{a+3}{3}$ _____ (iii)

and d = 3 (a+3) _____ (iv)

Solving above equaltions

$\therefore$ a = 9, b = 15, c = 4 and d = 36

difference = 36 – 4 = 32

Q.22.(4) Maximum marks of eight examination is not given.

Answer can't be determined

Q.23.(4) $(x - y) = \frac{1}{9}\left[\{(10x + y) - (10y + x)\}\right]$

$x - y = \frac{1}{9}(9x - 9y)$

x – y = x – y

Data Inadequate

Q.24.(5) By hit and trial method, we get $\frac{3}{11}, \frac{11}{35}$.

etc.

Hence we can't be determined

Q.25.(1) Area of rectangle = Area of square

$= 50 \times 40.5 = a^2$

a = 45

$d = a\sqrt{2}$

$d = 45\sqrt{2}$ cm.

Q.26.(4) $12000 \times \frac{10}{100} + x \times \frac{20}{100}$

$= (12000 + x) \times \frac{14}{100}$

$1200 + \frac{x}{5} = 1680 + \frac{7}{50}x$

$\frac{x}{5} - \frac{7}{50}x = 480$

$x = \frac{480 \times 50}{3}$

x = Rs. 8000

Total amount = Rs. (12000 + 8000)

= Rs. 20,000

Q.27.(2) Let the amount be Rs. x

Subhash gets = Rs. $\frac{4x}{10}$

Pooja's amount = $\frac{4x}{10} \times \frac{1}{4} = \frac{x}{10}$

$\frac{x}{10} - 200 =$ Rs.600

x = Rs. 8000

Q.28.(2) Distance covered by Train A before the train B leaves Mumbai = 60×3

= 180 km/hr

Time taken to cross each other = $\frac{180}{72 - 60}$

= 15 hours

Required time = 2 pm + 15 hours

= 5 am next day

Q.29.(3) $27^2 < 765 > 28^2$

765 – 729 = 36

Q.30.(1) Suresh complete the work = $\frac{9}{15}$

$= \frac{3}{5}$

Remaining work = $\frac{2}{5}$

Ashutosh complete the $\frac{2}{5}$ work in

$= 10 \times \frac{2}{5} = 4$ hours

Q.31.(5) From A and B

Marked Price = $\frac{3060 \times 100}{85}$

= Rs. 3600_____ (i)

From (i) and C

S. P. = $3600 \times \frac{2}{100}$

= Rs. 72 _____ (ii)

From (ii) and B

3060 – 72 = 2988

Profit% = $\frac{72}{2988} \times 100$ = 2% (approx)

All are necessary

Q.32.(2) From B = $(5x)^2 + (12x)^2 = AC^2$

$AC^2 = 169x^2$

AC = 13x

From A and B

5x + 12x + 13x = 30

x = 1

Area of right angled $\Delta = \frac{1}{2} \times 5 \times 12$

= 30 cm²

Only A and B

Q.33.(3) From A

x = 1.2 z

From B

y = 0.8 z

From C

y+z = 72

0.8z + z = 72

$z = \frac{72}{1.8}$

z = 40

From B and C

y = 40×0.8 = 32

x = 1.2×40 = 48

Difference = 48 – 32 = 16

All A, B and C

Q.34.(4) From B and C, speed = $\frac{300}{10}$ = 30 m/sec

Time = $\frac{560}{30 \times \frac{18}{5}}$ = 5 hours (approx)

Required time = 18:15 + 5 = 23:15 pm

Q.35.(4) From A and B

$4500 = \frac{P \times 10 \times 3}{100}$

P = Rs. 15000

C.I. = $15000\left[(1.1)^2 - 1\right]$

From B and C

$d = \frac{PR^2(300 + r)}{100^3}$

$P = \frac{465000000}{310 \times 100}$

P = Rs. 15000

C.I. = $15000\left[(1.1)^2 - 1\right]$

Q.36.(2) Required Number = 2725 – 2475 = 250

Q.37.(4) In 2005

Q.38.(1) Required Number

=2000+150+325+250+225 = 2950

Q.39.(5) None

Q.40.(3) Required % = $\frac{2950}{2725} \times 100$

= 108% (approx)

Q.41.(2) In 2004

Q.42.(3) Required ratio = 345:310

= 69:62

Q.43.(1) Required % = $\frac{125}{185} \times 100$ = 67.56%

Q.44.(4) 2005 - 06 ,100%

Q.45.(4) In 2006

Q.46.(2) Required ratio = $\frac{1}{50} : \frac{1}{40}$ = 4:5

Q.47.(5) Required Time = $\frac{986}{35}$

= 28 hours $\frac{6}{35}$ minutes

= $28\frac{6}{35}$ hrs.

Q.48.(4) Required speed = $\frac{235}{6} \times \frac{5}{18}$

= 10 m/sec (approx)

Q.49.(2) Required % = $\frac{225}{280} \times 100$

= 80% (approx)

Q.50.(3) Required % = $\frac{35 - 20}{20} \times 100$ = 75%

EXPLANATION/BPO/QUANTITATIVE APTITUDE/04

Q.1.(2) 9067+2065–8500+2048 = ?
= 13180 – 8500 = ?
? = 4680

Q.2.(3) 15×4.25+40.5÷15=? = 63.75+2.7 = ?
? = 66.45

Q.3.(1) 450% of ? ÷ 45– 428 = 195

$= \frac{45 \times 623 \times 100}{450} = 6230$

Q.4.(4) $\frac{1}{8}$ of 8432 + 25% of ? = 4429

$= 8432 \times \frac{1}{8} + x \times \frac{25}{100} = 4429$

$= 1054 + \frac{25x}{100} = 4429$

$= \frac{442900 - 105400}{25} = ? = 13500$

Q.5.(1) (732.56–148.46)÷11 = ?
= (584.1)÷11 = ?
? = 53.1

Q.6-10.

Q.6.(4) 583 572 546 505 449 [378]
–11 –26 –41 –56 –71
15 15 15 15

Q.7.(3) $25^{\times 1+1}$ $26^{\times 1.5+1}$ $40^{\times 2+1}$ $81^{\times 2.5+1}$ [203.5] $611.5^{\times 3+1}$

Q.8.(2) 820 832 808 844 796 [856]
+12 –24 +36 –48 +60
12 12 12 12

Q.9.(1) ×1–5, ×2–10, ×3–15, ×4–20, ×5–25,---

Q.10.(3) ×2.5+25, ×2.5+25, ×2.5+25, ×2.5+25, ×2.5+25

Q.11.(4) $C.I. = P\left[\left(1+\frac{r}{100}\right)^{1} - 1\right]$

$615 = 6000\left[\left(1+\frac{r}{100}\right)^{2} - 1\right]$

$\Rightarrow \frac{615}{6000} + 1 = \left(1+\frac{r}{100}\right)^{2}$

$\Rightarrow \frac{6615}{6000} = \left(1+\frac{r}{100}\right)^{2} = \frac{r}{100}$

$1.05 - 1 = \frac{r}{100} = 0.05$

r = 5%

Q.12.(2) The original fraction

$\frac{x}{y} \times \frac{350\%}{550\%} = \frac{15}{11}$

$\frac{x}{y} = \frac{15 \times 550}{350 \times 11} = \frac{15}{7}$

Q.13.(1) Required number of ways

$\frac{7!}{2!} = 2520$

Q.14.(1) $\frac{2,10,000 - 150,000}{150,000} \times 100 = 40$

Q.15.(4) Let no. of crows be x and elephants be y.
So, x+y = 648 —— (I)
2x+4y = 1426 ------ (II)
From eq. (I) and (II)
x = 583

Q.16.(1) $= \frac{0.5}{10} \times 100 = 5$

Q.17.(3) $= \frac{42.7}{5} = 8.54 = 8540$

Q.18.(4) $10.2+19 = 29.2+29.2 \times \frac{8}{100} = 31536$

Q.19.(2) $= \frac{2}{10} = \frac{1}{5} = 1 : 5$

Q.20.(1) 0.5+0.3+0.6+3.5+2.1+6.2 = 13.2
= 13.2×1000=13,200

Q.21.(3) $\frac{6}{5} \times 1200 - \frac{2}{3} \times 837$
= 1440–558 = 882

Q.22.(1) Let the first number be x and second number be y
2x+3y = 150 ------ (I)
3x+2y = 170 ------- (II)
From Eq. (I) and (II)
x = 42
y = 22

Q.23.(4) Teacher in 64 rows ×34=2176
? ×32 = 2176

$? = \frac{2176}{32}$

? = 68

Q.24.(3) Present age of Raju and Rajni = 14 : 20
Before 6 years = 14 : 20
11 : 17
3 = 6 years
1 = 2 year

∴ 14×2 : 20×2
After 4 years 28 : 40
4 : 4
32 : 44
8 : 11

Q.25.(2) Total weight of 90 girls = 90×20 = 1800
Group 'A' = 16×12 = 192
Group 'B' = 34×16 = 544
Total = 736
Remaining weight = 1800 – 736 = 1064
Remaining girls = 90 – (16+34) = 40
Avg. weight of Remaining girls

$= \frac{1064}{40} = 26.6$

Q.26.(3) Avg. = Tall Camel, Small birds and white dog, in the year 2006
Tall camel = 78,000×37.5 % = 29250
Small birds = 80,000×20% = 16000
White dog = 40,000×7.5% = 3000
Total = 48250

$Avg. = \frac{48250}{3} = 16083.33$

Q.27.(4) $\% = \frac{64000 \times 35\%}{56000 \times 25\%} \times 100$

$= \frac{22400}{14000} \times 100$

= 160%

Q.28.(2) $Ratio = \frac{60,000 \times 22.5\%}{44000 \times 25\%}$

$= \frac{13500}{11000}$

= 27 : 22

Q.29.(4) Difference = (Small birds + white dog) – Tall Camel in the year 2005)
= (60,000@22.5%+25000@10%)–(75000@27.5%)
(16000–20625) = 4625

Q.30.(3) Total number of white dog in 2001, 2003 and 2005 years.
2001 - 12000@ 15% = 1800
2003 - 15000 @ 25% = 3750
2005 - 25000@ 10% = 2500
= 8050

Q.31.(1) Percent marks

$= \frac{436}{600} \times 100 = 72.66\%$

= 72 (approx)

Q.32.(5) Difference = (177–156)
= 21

Q.33.(2) $Percent = \frac{30}{112.5} \times 100$
= 26 (approx)

Q.34.(3) Average marks

$= \frac{483.5}{6}$

= 80.5% (approx)

Q.35.(2) Total marks
= 123+144+22
= 289

Q.36.(2) $= \frac{165}{5} = 33$ lakh

Q.37.(5) A = 30+37.5 = 67.5
C = 42.5+25 = 67.5
Total = 67.5+67.5 = 135 lakh

Q.38.(4) $Ratio = \frac{30+40}{25+35} = \frac{70}{60}$
= 7 : 6

Q.39.(2) $\% = \frac{30}{25+37.5} \times 100$

$= \frac{30}{62.5} \times 100 = 48$

Q.40.(1) Girls in university 'E' increase by 50%
Girls = 35+35@50% = 52.5 lakh
Boys = 27.5 lakh
Total students = 52.5+27.5 = 80 lakh

Q.41.(4) 58% of 494–3.5% of 896 = ?
= 286.52 – 31.36
= 286 – 31
= 255

Q.42.(2) = 99×10+1 = 991

Q.43.(1) $\frac{4}{5} \times \frac{1225}{1428} \times 9 = ?$
= 6

Q.44.(3) $\left(\sqrt{240} \times 16\right) \div 20$
= 13

Q.45.(5) (634+9708–215)÷25 = ?
= 400

Q.46.(1) $\% = \frac{3500}{5000} \times 100 = 70\%$

Q.47.(3) Difference = 4000–2000 = 2000

Q.48.(4) Ratio = 500 : 2000
= 1 : 4

Q.49.(2) Total = 3000+5000+3500 = 11,500

Q.50.(5) $\% = \frac{3500}{20,000} \times 100$
= 17.5 or 17% (approx.)