

Quantitative Aptitude

(Based on Memory)

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

1. $361 \times 250 \div 50 = 25 \times ?$
 (A) 74.2 (B) 72.2
 (C) 70.4 (D) 72.4
 (E) None of these

2. $\frac{1}{4} \times 5620 - \frac{2}{5} \times ? = 373$
 (A) 2850 (B) 2540
 (C) 2560 (D) 2480
 (E) None of these

3. $(?)^3 \div 32 = 54$
 (A) 18 (B) 2744
 (C) 1728 (D) 12
 (E) None of these

4. 36% of $365 + ?\%$ of $56.2 = 156.69$
 (A) 35 (B) 30
 (C) 45 (D) 40
 (E) None of these

5. $\sqrt{2916} \times \sqrt{7} = 2268$
 (A) 1764 (B) 42
 (C) 1936 (D) 44
 (E) None of these

Directions—(Q. 6-10) In the following number series a wrong number is given. Find out the wrong number.

6. 150, 290, 560, 1120, 2140, 4230, 8400
 (A) 2140 (B) 560
 (C) 1120 (D) 4230
 (E) 290
7. 10, 8, 13, 35, 135, 671, 4007
 (A) 8 (B) 671
 (C) 135 (D) 13
 (E) 35
8. 80, 42, 24, 13.5, 8.75, 6.375, 6.1875
 (A) 8.75 (B) 13.5
 (C) 24 (D) 6.375
 (E) 42

9. 125, 75, 45, 25, 16.2, 9.72, 5.832
 (A) 25 (B) 45
 (C) 9.72 (D) 16.2
 (E) 75

10. 29, 37, 21, 43, 13, 53, 5
 (A) 37 (B) 53
 (C) 13 (D) 21
 (E) 43

Directions—(Q. 11-15) Study the following table carefully and answer the questions given below it—

Various Foodgrains Sold by Various Farmers at Various Prices

(Price per kg)

Farmers	Foodgrains				
	Rice	Corn	Bajra	Paddy	Jowar
A	30	22.5	22	24	18
B	36	28	24.5	25	24
C	40	24	21	26	20.5
D	34.5	27.5	28	25	25
E	36	32	30	28.5	27

11. If Farmer A sells 350 kg of Rice, 150 kg of Corn and 250 kg of Jowar, how much would he earn ?
 (A) ` 19,425 (B) ` 18,500
 (C) ` 15,585 (D) ` 18,375
 (E) None of these
12. What is the average price per kg of Bajra sold by all the farmers together ?
 (A) ` 25-10 (B) ` 24-50
 (C) ` 25 (D) ` 23-40
 (E) None of these
13. If farmer D and farmer E, both sell 240 kg of Bajra each, what would be the respective ratio of their earnings ?
 (A) 15 : 14 (B) 11 : 13
 (C) 14 : 15 (D) 13 : 15
 (E) None of these
14. If farmer C sells 180 kg each of Corn, Paddy and Jowar grains, how much would he earn ?

- (A) ` 13,540 (B) ` 12,550
 (C) ` 13,690 (D) ` 12,690
 (E) None of these

15. Earnings on 150 kg of Paddy sold by farmer B are **approximately** what per cent of the earnings on the same amount of Rice sold by the same farmer ?
 (A) 65 (B) 69
 (C) 73 (D) 60
 (E) 75
16. Shamita took a loan at simple interest rate of 6 p.c.p.a. in the first year and it increased by 1.5 p.c.p.a. every year. If she pays ` 8,190 as interest at the end of 3 years, what was her loan amount ?
 (A) ` 36,000
 (B) ` 35,400
 (C) ` 36,800
 (D) Cannot be determined
 (E) None of these
17. Which of the following fractions are in descending order ?
 (A) $\frac{5}{12}, \frac{2}{7}, \frac{3}{11}, \frac{2}{9}, \frac{1}{5}$
 (B) $\frac{2}{7}, \frac{2}{9}, \frac{3}{11}, \frac{1}{5}, \frac{5}{12}$
 (C) $\frac{1}{5}, \frac{2}{9}, \frac{3}{11}, \frac{2}{7}, \frac{5}{12}$
 (D) $\frac{5}{12}, \frac{3}{11}, \frac{2}{7}, \frac{2}{9}, \frac{1}{5}$
 (E) None of these
18. In how many different ways can the letters of the word 'AWARE' be arranged ?
 (A) 150 (B) 120
 (C) 40 (D) 60
 (E) None of these
19. Ayesha can complete a piece of work in 16 days. Amita can complete the same piece of work in 8 days. If both of them work together in how many days can they complete the same piece of work ?

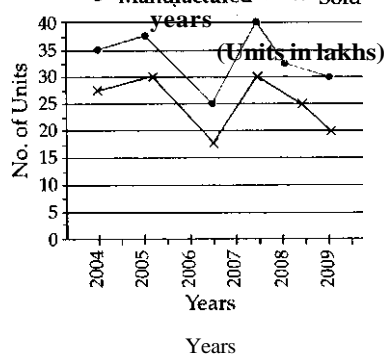
- (A) 6 days (B) $4\frac{2}{5}$ days
 (C) $5\frac{1}{3}$ days (D) 12 days
 (E) None of these

- (A) 6 days (B) 4 days
 (C) 5 days (D) 12 days
 (E) None of these

20. The average of 5 numbers is 65. The average of the first two numbers is 81 and the average of the last two numbers is 38. What is the third number ?
 (A) 63
 (B) 87
 (C) 99
 (D) Cannot be determined
 (E) None of these

Directions—(Q. 21-25) Study the following graph carefully and answer the questions given below it—

Number of Units Manufactured and Sold by a Company over the



21. What is the difference between the number of unsold units of the company in the year 2006 and the number of unsold units of the company in the year 2009 ?
 (A) 3 lakhs (B) 3-5 lakhs
 (C) 5 lakhs (D) 4 lakhs
 (E) None of these
22. What is the **approximate** average number of units manufactured by the company over the years ?
 (A) 28 lakhs (B) 33 lakhs
 (C) 30 lakhs (D) 35 lakhs
 (E) 26 lakhs
23. What is the respective ratio of the number of units manufactured by the company in the year 2007 and number of units sold by the company in the year 2008 ?
 (A) 5 : 8 (B) 3 : 2
 (C) 2 : 7 (D) 7 : 2
 (E) None of these

24. The number of units sold in the year 2009 are **approximately** what per cent of the number of units sold by the company in the year 2004 ?

- (A) 78 (B) 80
 (C) 73 (D) 70
 (E) 68

25. What is the total number of unsold units of the company in the year 2005 and the year 2008 together ?

- (A) 12 lakhs (B) 15 lakhs
 (C) 7 lakhs (D) 7-5 lakhs
 (E) None of these

26. Vinod makes a profit of ? 110 if he sells a certain number of pencils he has at the price of ? 2-5 per pencil and incurs a loss of ? 55 if he sells the same number of pencils for <? 1-75 per pencil. How many pencils does Vinod have ?

- (A) 220
 (B) 240
 (C) 200
 (D) Cannot be determined
 (E) None of these

27. Which of the following represents $ab = 64$?

- (A) $8:a = 8:b$
 (B) $a:16 = 6:4$
 (C) $a:8 = b:8$
 (D) $32:a = b:2$
 (E) None of these

28. A bus covered a certain distance from village A to village B at the speed of 60 km/hr. However on its return journey it got stuck in traffic and covered the same distance at the speed of 40 km/hr. and took 2 hours more to reach its destination. What is the distance covered between village A and B ?

- (A) 240 km
 (B) 260 km
 (C) 200 km
 (D) Cannot be determined
 (E) None of these

29. The ratio of the number of students studying in schools A, B and C is 5 : 8 : 4 respectively. If the number of students studying in each of the schools is increased

by 20%, 25% and 30% respectively, what will be the new respective ratio of the students in schools A, B and C ?

- (A) 13:25:15
 (B) 20:25:13
 (C) 15:25:13
 (D) Cannot be determined
 (E) None of these

30. A train speeds past a pole in 20 second and speeds past a platform 100 metre in length in 30 seconds. What is the length of the train ?

- (A) 100 metre
 (B) 150 metre
 (C) 180 metre
 (D) 200 metre
 (E) None of these

Directions—(Q. 31-35) Study the following table carefully and answer the questions given below it—

Number of Students Applied, Appeared and Qualified for Various Courses

Courses	Applied	Appeared	Qualified
P	3500	3200	2050
Q	4000	3850	3700
R	5200	4900	4850
S	4500	4000	3500
T	5000	4800	4740

31. In which course is the difference between the number of students who applied and the number of students who appeared the lowest ?

- (A) P (B) Q
 (C) R (D) S
 (E) T

32. The number of students who qualified for course R is **approximately** what per cent of the number of students who applied for the course ?

- (A) 81 (B) 89
 (C) 93 (D) 99
 (E) 85

33. What is the average number of students who qualified from all the courses together ?

- (A) 3678 (B) 3756
 (C) 3687 (D) 3768
 (E) None of these

34. What is the respective ratio of the number of students who applied but did not appear for courses S to those students who applied but did not appear for course T ?
 (A) 2 : 5 (B) 5 : 7
 (C) 7 : 5 (D) 5 : 3
 (E) None of these
35. What is the difference between the number of students who appeared but did not qualify from course P and the number of students who appeared but did not qualify from course Q ?
 (A) 1000 (B) 950
 (C) 1050 (D) 1150
 (E) None of these
36. What is the total number of employees in IT department ?
 (A) 1014 (B) 1300
 (C) 1560 (D) 1650
 (E) None of these
37. What is the total number of Post Graduates in the organization from all the departments together ?
 (A) 2597 (B) 2500
 (C) 2867 (D) 2659
 (E) None of these
38. The number of graduates in Finance department is what per cent of the total number of employees in the organization ?
 (A) 4-5 (B) 5
 (C) 5-5 (D) 3
 (E) None of these
39. What is the respective ratio of the number of Postgraduates in Legal department to the number of Postgraduates in HR department ?
 (A) 8:11 (B) 3 : 5
 (C) 24:55 (D) 12:25
 (E) None of these
40. What is the total number of employees in HR, Finance and Legal departments together ?
 (A) 3484 (B) 2860
 (C) 3640 (D) 3016
 (E) None of these

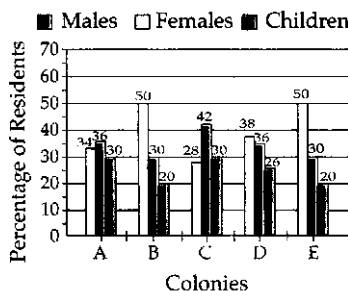
Directions—(Q. 36-40) Study the following information carefully and answer the questions given below it -

There are 5200 employees in an organization working in various departments viz. HR, Marketing, Finance, IT and Legal. The employees in the various departments are either graduates or Postgraduates. 25% of the total number of employees are from HR department. 12% of the total number of employees are from Marketing department. 45% of the total number of employees in the HR department are Graduates. 50% of the total number of employees in the Marketing department are postgraduates. 18% of the total number of employees in the organization are from Finance department out of which 75% are postgraduates. 546 employees from IT department are Postgraduates. 15% of the total number of employees in the organization are in Legal department. 60% of the total number of employees in Legal department are graduates.

36. What is the total number of employees in IT department ?
 (A) 1014 (B) 1300
 (C) 1560 (D) 1650
 (E) None of these
37. What is the total number of Post Graduates in the organization from all the departments together ?
 (A) 2597 (B) 2500
 (C) 2867 (D) 2659
 (E) None of these

Directions—(Q. 41-45) Study the following Graph and Table carefully and answer the questions given below it—

Percentage of Males, Females and Children Living in Various Colonies



Total Number of Residents in Various Colonies	
Colonies	Residents
A	1250
B	2050
C	1800
D	1150
E	1620

41. What is the total number of females in colonies A, B and C together ?
 (A) 1785 (B) 1821
 (C) 1479 (D) 1692
 (E) None of these
42. The number of children in colony A are **approximately** what per-

cent of the number of children in colony E ?
 (A) 121 (B) 116
 (C) 75 (D) 101
 (E) 98

43. What is the respective ratio of the number of males in colony B to the number of females in the same colony ?
 (A) 3 : 5 (B) 7 : 5
 (C) 8 : 7 (D) 5 : 7
 (E) None of these
44. What is the average number of residents from all the colonies together ?
 (A) 1654 (B) 1600
 (C) 1580 (D) 1574
 (E) None of these
45. What is the difference between the number of males in colony D and the number of children in the same colony ?
 (A) 138 (B) 126
 (C) 136 (D) 135
 (E) None of these

Directions—(Q. 46-50) What **approximate** value should come in place of the question-mark (?) in the following questions ?

(You are not expected to calculate the exact value.)

46. $15\% \text{ of } 323 - 20\% \text{ of } 198 = ?$
 (A) 12 (B) 5
 (C) 15 (D) 3
 (E) 9
47. $3058 + 27 \times 3 = ?$
 (A) 360 (B) 348
 (C) 340 (D) 330
 (E) 321
48. $(3-58)^2 \times (1-75)^2 = ?$
 (A) 25 (B) 40
 (C) 30 (D) 35
 (E) 50
49. $\sqrt{5138} \div \sqrt{36} = ?$
 (A) 21 (B) 6
 (C) 12 (D) 18
 (E) 26
50. $37.5 \times 34.9 \div 2.75 = ?$
 (A) 476 (B) 491
 (C) 464 (D) 453
 (E) 486