

Quantitative and Data Interpretation & Sufficiency Section

For all questions in this section, correct answers carry 1 mark each.

1. A dice is rolled three times and sum of three numbers appearing on the uppermost face is 15. The chance that the first roll was a four is
(a) $2/5$ (b) $1/5$ (c) $1/6$ (d) None of these
Ans. (b)
2. A boat covers distance of 30 kms. downstream in 2 hours while it takes 6 hours to cover the same distance upstream. What is the speed of the boat in kms per hour?
(a) 5 (b) 7.5 (c) 13 (d) 18
Ans. (b)
3. A five digit number is formed by using the digits 1, 2, 3, 4, and 5 without repetitions. What is the probability that the number is divisible by 4 ?
(a) $1/5$ (b) $5/6$ (c) $4/5$ (d) None of these
Ans. (a)
4. If the algebraic sum of deviations of 20 observations measured from 23 is 70, mean of these observations would be
(a) 24 (b) 25 (c) 26 (d) None of these
Ans. (d)
5. An alloy of gold and silver weighs 50 gms. It contains 80% gold. How much gold should be added to the alloy so that percentage of gold is increased to 90?
(a) 50 gms (b) 60 gms (c) 30 gms (d) 40 gms
Ans. (a)
6. Weekly incomes of two persons are in the ratio of 7:3 and their weekly expenses are in the ratio of 5:2. If each of them saves Rs. 300 per week, then the weekly income of the first person is
(a) Rs. 7500 (b) Rs. 4500 (c) Rs. 6300 (d) Rs. 5400
Ans. (c)
7. Wheat is now being sold at Rs. 27 per kg. During last month its cost was Rs. 24 per kg. Find by how much per cent a family reduces its consumption so as to keep the expenditure fixed.
(a) 10.2% (b) 12.1% (c) 12.3% (d) 11.1%
Ans. (d)
8. There are 10 stations on a railway line. The number of different journey tickets that are required by the authorities is
(a) 92 (b) 90 (c) 91 (d) None of these
Ans. (b)
9. The radius of a circle is so increased that its circumference increased by 5%. The area of the circle then increases by
(a) 12.5% (b) 10.25% (c) 10.5% (d) 11.25%
Ans. (b)
10. In how many ways can the letters of the word ABACUS be rearranged such that the vowels always appear together?
(a) $6! 12!$ (b) $3! * 3!$ (c) $(3! * 3!)/2!$ (d) $(4! * 3!)/2!$
Ans. (d)
11. In 4 years, Rs. 6000 amounts to Rs. 8000. In what time at the same rate will Rs. 525 amount to Rs. 700?
(a) 2 years (b) 3 years (c) 4 years (d) 5 years
Ans. (c)

Directions for Question Nos. 12-14

At the start of a game of cards, J and B together had four times as much money as T, while T and B together had three times as much as J.

At the end of the evening, J and B together had three times as much money as T, while T and B together had twice as much as J. B lost Rs. 200.

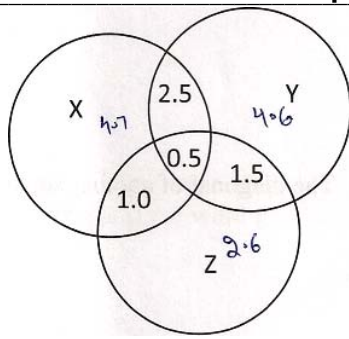
12. What fraction of the total money did T have at the beginning of the game ?
 (a) 1/3 (b) 1/8 (c) 2/9 (d) 1/5
 Ans. (d)
13. What fraction of the total money did J win/ lose ?
 (a) Won 1/12 (b) Lost 1/6 (c) Lost 1/3 (d) Won 1/5
 Ans. (a)
14. What amount did B start with ?
 (a) Rs. 575 (b) Rs. 375 (c) Rs. 825 (d) Rs. 275
 Ans. (c)
15. If a and b are negative, and c is positive, which of the following statements is/are true?
 I) $a-b < a-c$ II) if $a < b$, then $a/c < b/c$ III) $1/b < 1/c$
 (a). I only b. II only c. III only d. II and III only
 Ans. (d)
16. The diagonal of a square is $4\sqrt{2}$ cm. The diagonal of another square whose area is double that of the first square is
 a. 8 cm b. $8\sqrt{2}$ cm c. $4\sqrt{2}$ cm d. 16 cm
 Ans. (a)
17. The maximum length of a pencil that can be kept in a rectangular box of dimensions 8 cm x 6 cm x 2 cm. is
 a. $2\sqrt{13}$ cm b. $2\sqrt{14}$ cm c. $2\sqrt{26}$ cm d. $10\sqrt{2}$ cm
 Ans. (c)

Directions for Question Nos. 18 to 19: based on the information given below

The Venn diagram given below shows the estimated readership of 3 daily newspapers (X, Y & Z) in a city. The total readership and advertising cost for each of these papers is as below

Newspaper	Readership (lakhs)	Advertising cost (Rs. per sq.cm)
X	8.7	6000
Y	9.1	6500
Z	5.6	5000

The total population of the city is estimated to be 14 million. The common readership (in lakhs) is indicated in the given venn diagram



18. The number of people (in lakhs) who read at least one newspaper is:
 a. 4.7 b. 11.9 c. 17.4 d. 23.4

Ans. (c)

19. The number of people (in lakhs) who read only one newspaper is
 a. 4.7 b. 11.9 c. 17.4 d. 23.4

Ans. (b)

20. Sonali invests 15% of her monthly salary in insurance policies. She spends 55% of her monthly salary in shopping and on household expenses. She saves the remaining amount of Rs. 12,750. What is Sonali's monthly income ?

(a) Rs. 42,500 (b) Rs. 38,800 (c) Rs. 40,000 (d) Rs. 35,500

Ans. (a)

21. How many kgs of tea worth Rs. 25 per kg must be blended with 30 kgs of tea worth Rs. 30 per kgs so that by selling the blended variety at Rs. 30 per kgs there should be again of 10%P

(a) 36 kgs (b) 40 kgs (c) 32 kgs (d) 42 kgs

Ans.(a)

22. In an examination, out of 80 students 85% of the girls and 70% of the boys passed. How many boys appeared in the examination if total pass percentage was 75%?

(a) 370 (b) 340 (c) 320 (d) 360

Ans. (c)

23. 300 gms of salt solution has 40% salt in it. How much salt should be added to make it 50% in the solution?

(a) 40 gms (b) 60 gms (c) 70 gms (d) 80 gms

Ans. (b)

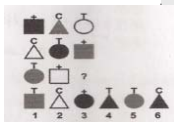
24. What number should replace the question mark in the image below?

6	12	?
48	96	192

(a) 18 (b) 20 (c) 22 (d) 24

Ans. (d)

25. What image from bottom row should replace the question mark?



(a) 4 (b) 6 (c) 1 (d) None

Ans. (b)

26. A five-digit number divisible by 3 is to be formed using numerical 0, 1, 2, 3, 4 and 5 without repetition. The total number of ways this can be done is
 a. 122 b. 210 c. 216 d. 217
 Ans.(c)

27. A contract is to be completed in 50 days and 105 men were set to work, each working 8 hours a day. After 25 days, $\frac{2}{5}$ of the work is finished. How many additional men be employed so that the work may be completed on time, each man now working 9 hours a day?
 a. 34 b. 36 c. 35 d. 37
 Ans. (c)

28. A can build up a structure in 8 days and B can break it in 3 days. A has worked for 4 days and then B joined to work with A for another 2 days only. In how many days will A alone build *tip* the remaining part of the structure?
 a. 10 days b. 9 days c. 12 days d. None of these
 Ans. (d)

29. The first two terms of a geometric progression add up to 12. The sum of the third and the fourth terms is 48. If the terms of the geometric progression are alternately positive and negative, then the first term is
 a. -2 b. -4 c. -12 d. 8
 Ans. (c)

30. The mean of the numbers a, b, 8, 5, 10 is 6 and the variance is 6.80. Then which one of the following gives possible values of a and b?
 a. a=0,b=7 b. a=5,b=2 c. a = 3, b = 4 d. a=2,b=4
 Ans. (c)

31. An agent sells goods of value of Rs. 15, 000. The commission which he receives at the ratio of 121/2% is
 (a) Rs. 1875 (b) Rs. 2125 (c) Rs. 2000 (d) Rs. 2700
 Ans. (a)

32. $\sqrt{110.25} \times \sqrt{0.01} \div \sqrt{0.0025} - X \sqrt{20.25}$ equals to:
 (a) 0.75 (b) 0.50 (c) 0.64 (d) 0.73
 Ans. (b)

Directions for Question Nos. 33-35

The table below shows the number of people who responded to a survey about their favourite style of music. Use this information to answer the following questions to the nearest whole percentage.

Age	15-20	21-30	31+
Classical	6	4	17
Pop	7	5	5
Rock	6	12	14
Jazz	1	4	11
Blues	2	3	15
Hip-Hop	9	3	4
Ambient	2	2	2
	33	33	68

33. What percentage of respondents under 31 indicated that Blues is their favourite style of music?
 a. 7.1 (b) 7.6 (c) 8.3 (d) 14.1
 Ans. (b)

34. What percentage of respondents aged 21-30 indicated a favourite style other than Rock music?
 (a) 64% (b) 60% (c) 75% (d) 36%
 Ans. (a)

35. What percentage of the total sample indicated that Jazz is their favourite style of music?

- (a) 6% (b) 8% (c) 22% (d) 12%

Ans. (d)

Directions to Questions Nos. 36 -40

The pie charts below show the percentage of students in each faculty at North West University and the number of non-US students in the Arts faculty. These percentages have been rounded to the nearest whole number. There are a total of 1049 students in Arts faculty. Use this information to answer the following questions

36. What percentage of students in the Arts faculty are non-US students?

- (a) 14% (b) 9% (c) 30% (d) 11%

Ans. (d)

37. How many students are there in the Engineering faculty?

- (a) 420 (b) 410 (c) 390 (d) 440

Ans. (b)

38. How many students are there at the University?

- (a) 4650 (b) 4560 (c) 4640 (d) 4450

Ans. (b)

39. If six percent of Science students are Asian, how many Asian students are studying Science?

- (a) 48 (b) 66 (c) 120 (d) 57

Ans. (d)

40. There are 34 European medical students. What percentage of the faculty does this represent?

- (a) 14% (b) 18% (c) 16% (d) 15%

Ans. (d)