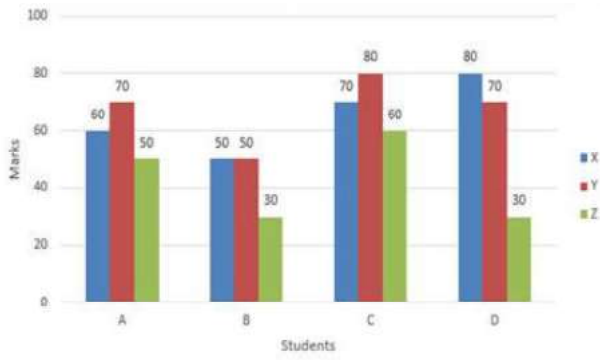


SSC CHSL (TIER - 1) ONLINE EXAM PAPER - 2018 "HELD ON 11 JULY 2019" MORNING-SHIFT (QUANTITATIVE APTITUDE)

1. The full marks for a paper is 300. The break-up of the marks into theory (X), practical (Y) and (Z) project, which are the three components of evaluation is 6 : 5 : (d) In order to pass one has to score at least 40%, 50% and 50% respectively in XYZ and 60% in aggregate. The marks scored by four students ABC and D are shown in the given Bar Graph.



How much percentage marks more than B has C scored in practical

- (a) 40 (b) 20
(c) 30 (d) 60

Correct answer: 30

2. With reference to a number greater than one, the difference between itself and its reciprocal is 25% of the sum of itself and its reciprocal. By how much percentage (correct one decimal place) is the fourth power of the number greater than its square?

- (a) 62.5 (b) 66.7
(c) 64.5 (d) 57.8

Correct answer: 66.7

3. AB and CD are two chords of a circle which intersect at a point O inside the circle. It is given that, AB = 10 cm, CO = 1.5 cm and DO = 12.5 cm. What is the ratio between the larger and smaller among AO and BO?

- (a) 3 : 2 (b) 4 : 1
(c) 7 : 3 (d) 3 : 1

Correct answer: 3 : 1

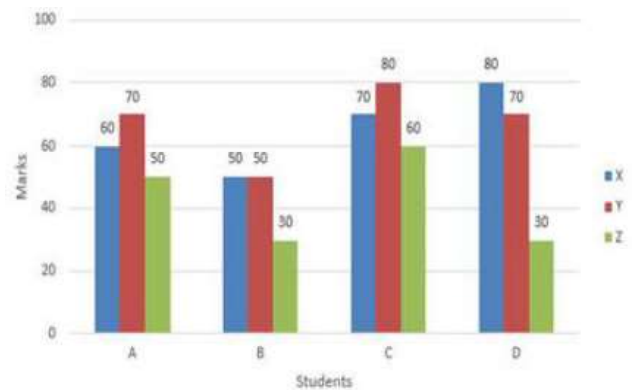
4. During a practice session in a stadium an athlete runs along a circular track and her performance

is observed by her coach standing at a point on the circle and also by her physiotherapist standing at the centre of the circle. The coach finds that she covers an angle of 72° in 1 min. What will be the angle covered by her in 1 second according to the measurement made by her physiotherapist?

- (a) 2.4
(b) 1.2
(c) 4.8
(d) It depend on the position of the coach on the circular track

Correct answer: 2.4

5. The full marks for a paper is 300. The break-up of the marks into theory (X), practical (Y) and (Z) project, which are the three components of evaluation is 6 : 5 : (d) In order to pass one has to score at least 40%, 50% and 50% respectively in XYZ and 60% in aggregate. The marks scored by four students ABC and D are shown in the given Bar Graph.



What is the average marks of the four students in theory?

- (a) 60 (b) 65
(c) 70 (d) 68

Correct answer: 65

6. The value of $18.43 \times 18.43 - 6.57 \times 6.57 / 11.86$ is:

- (a) 23.62 (b) 26
(c) 24.12 (d) 25

Correct answer: 25

7. A purchased two articles for Rs.200 and Rs.300 respectively and sold at gains of 5% and 10% respectively. What was his overall gain percentage?

- (a) 8 (b) 5
(c) 9 (d) 6

Correct answer: 8

8. A can complete a piece of work in 20 days and B can complete 20% of the work in 6 days. If they work together in how many days can they finish 50% of the work, if they work together?

- (a) 6 (b) 8
(c) 9 (d) 12

Correct answer: 6

9. The ten digit number $2x600000y8$ is exactly divisible by 24. If $x \neq 0$ and $y \neq 0$, then the least value of $(x + y)$ is equal to:

- (a) 2 (b) 5
(c) 8 (d) 9

Correct answer: 5

10. The average of 1088 real numbers is zero. At most how many of them can be negative?

- (a) 88 (b) 100
(c) 1087 (d) 544

Correct answer: 1087

11. The two diagonals of a rhombus are respectively, 14 cm and 48 cm. The perimeter of the rhombus is equal to:

- (a) 100 cm (b) 160 cm
(c) 80 cm (d) 120 cm

Correct answer: 100 cm

12. A certain sum was invested on simple interest. The amount to which it had grown in five years was $\frac{5}{4}$ times the amount to which it had grown in three years. The percentage rate of interest was:

- (a) 15% (b) 25%
(c) 20% (d) 10%

Correct answer: 20%

13. For all $\infty_i S_i$ ($i = 1, 2, 3, \dots, 20$) lying between 0° and 90° , it is given that

$$\sin \infty_1 + \sin \infty_2 + \sin \infty_3 + \dots + \sin \infty_{20} = 20$$

What is the value (in degrees) of

$$(\infty_1 + \infty_2 + \infty_3 + \dots + \infty_{20})$$

- (a) 900 (b) 1800
(c) 0 (d) 20

Correct answer: 1800

14. The ratio of the square of a number to the reciprocal of its cube is $\frac{243}{16807}$

What is the number?

- (a) $\frac{2}{7}$ (b) $\frac{3}{7}$
(c) $\frac{5}{7}$ (d) $\frac{7}{3}$

Correct answer: $\frac{3}{7}$

15. O, G, I and H are respectively the circumcentre, centroid, incentre and orthocentre of an equilateral triangle. Which of these points are identical ?

- (a) O and I only (b) O, G, I and H
(c) O and G only (d) O, G and H only

Correct answer: O, G, I and H

16. What is the value of $\operatorname{cosec}^2 30^\circ + \sin^2 45^\circ + \sec^2 60^\circ + \tan^2 30^\circ$?

- (a) 8 (b) $\frac{53}{6}$
(c) 9 (d) $\frac{25}{3}$

Correct answer: $\frac{53}{6}$

17. For $0^\circ \leq \theta \leq 90^\circ$, what is θ , when

$$\sqrt{3} \operatorname{cosec} \theta + \sin \theta = 1?$$

- (a) 0° (b) 30°
(c) 45° (d) 90°

Correct answer: 90°

18. An article having marked price, Rs. 900, was sold for Rs. 648 after two successive discounts. The first discount was 20%. What was the percentage rate of the second discount?

- (a) 5 (b) 15
(c) 10 (d) 12.5

Correct answer: 10

19. If $\frac{10}{7} (1 - 2.43 \times 10^{-3}) = 1.417 + x$, then x is equal to:

- (a) 0.417 (b) 0.81
(c) 0.0081 (d) 0.417

Correct answer: 0.0081

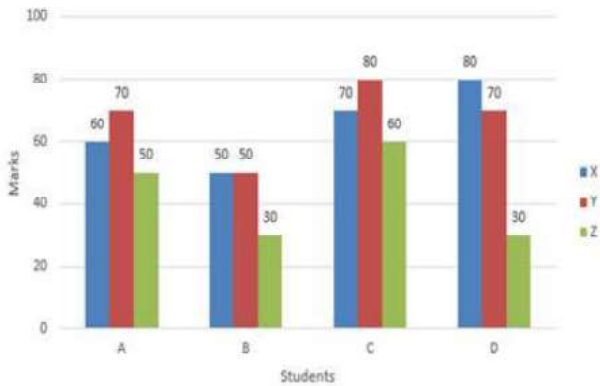
20. The simplified value of $\left\{ \frac{5}{4} \text{ of } \left(\frac{7}{3} \div \frac{7}{5} \right) - \frac{17}{12} \right\} + \frac{1}{9} \div \frac{7}{3} + \frac{2}{7} + \frac{1}{6}$ is:

- (a) 1 (b) $\frac{3}{2}$
(c) $\frac{7}{3}$ (d) $\frac{7}{6}$

Correct answer: $\frac{7}{6}$

21. The full marks for a paper is 300. The break-up of the marks into theory (X), practical (Y) and (Z) project, which are the three components of evaluation is 6 : 5 : 4. In order to pass one has to score at least 40%, 50% and 50% respectively in XYZ and 60% in aggregate. The marks scored by four

students ABC and D are shown in the given Bar Graph.



Who among the students could not pass?

- (a) B only
- (b) A only
- (c) B and C
- (d) B and D

Correct answer: B and D

22. If $(3x+1)^3 + (x-3)^3 + (4-2x)^3 + 6(3x+1)(x-3)(x-2) = 0$

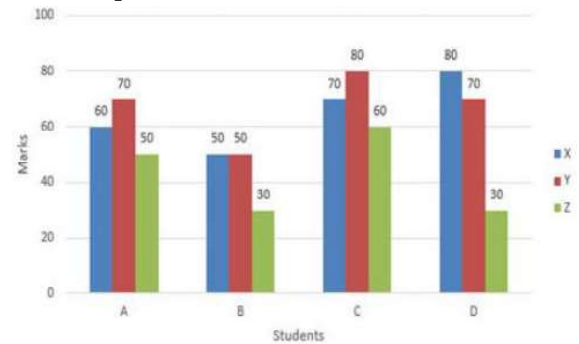
then x is equal to :

- (a) 1
- (b) -1
- (c) $1/2$
- (d) $-1/2$

Correct answer: -1

23. The full marks for a paper is 300. The break-up of the marks into theory (X), practical (Y) and (Z) project, which are the three components of evaluation is 6 : 5 : 4. In order to pass one has to score at least 40%, 50% and 50% respectively in XYZ and 60% in aggregate. The marks scored by

four students ABC and D are shown in the given Bar Graph.



Arrange the students B, C and D according to the ascending order of the aggregate marks scored by them.

- (a) B, C, D
- (b) B, D, C
- (c) D, B, C
- (d) C, D, B

Correct answer: B, D, C

24. The platform of a station 400 m long starts exactly where the last span of a bridge 1.2 km long ends. How long will a train 200 m long and travelling at the speed of 72 km/h take to cover the distance between the starting point of the span of the bridge and the far end of the platform?

- (a) 1.5 min
- (b) 1.2 min
- (c) 1.6 min
- (d) 1.8 min

Correct answer: 1.5 min

25. ABC DEF and their perimeters are 60 cm and 48 cm respectively. What is the length AB, if DE is equal to 9 cm?

- (a) 18 cm
- (b) 12 cm
- (c) 17.5 cm
- (d) 16 cm

Correct answer: 12 cm