

AMITY INSTITUTE

FOR COMPETITIVE EXAMINATIONS

Delhi Centres: • E-23, Defence Colony, New Delhi - 110024. Ph.: 011-24336143/44, 24331000-02.
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AIS Pushp Vihar : Sector 7, Pushp Vihar, Sector-7, Pushp Vihar, New Delhi, Delhi 110017.

AMITY FIVE YEARS CONCEPTUAL PROGRAMME

MODULE TEST-III

CLASS - VII

MATHEMATICS

Time: 1 hour 15 Minutes

Date: 27-01-2017

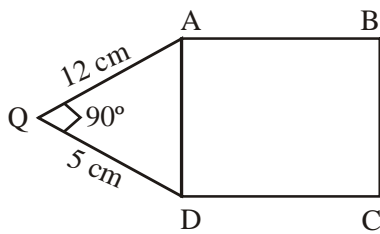
Maximum Marks: 160

GENERAL INSTRUCTIONS:

1. Fill in the response sheet with your Name, Class, School etc, in the respective columns, using a blue pen
 2. Only one choice (a), (b), (c), (d) is correct for each question. Shade the alphabet of your choice in the response sheet.
 3. For each correct response you will get **4 marks**; for each incorrect response you will lose **1 mark**. However if the question is unanswered no marks will be deducted.
 4. Use only HB pencil/Ball point pen for Shading.
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1. Evaluation of $8^3 \times 8^2 \times 8^{-5}$ is _____.
(a) 1 (b) 0 (c) 8 (d) none of these
2. Which of the following numbers gives 240 when added to its own square?
(a) 15 (b) 16 (c) 18 (d) 20
3. The no. of 3-digit numbers divisible by 6, is _____.
(a) 149 (b) 166 (c) 150 (d) 151
4. $106 \times 106 - 94 \times 94 = ?$
(a) 2004 (b) 2400 (c) 1904 (d) 1906
5. The mean of 10 observations was calculated as 40. It was detected on rechecking that the value of 45 was wrongly copied as 15. Find the correct mean.
(a) 44 (b) 43 (c) 45 (d) 46
6. Which of the following has the same mean, median and mode?
(a) 6, 2, 5, 4, 3, 4, 1 (b) 4, 2, 2, 1, 3, 2, 3 (c) 2, 3, 7, 3, 8, 3, 2 (d) 4, 3, 4, 3, 4, 6, 4
7. Find the value of $\frac{2}{3} \times \frac{3}{\frac{5}{6} \div \frac{2}{3}}$ of $1\frac{1}{4}$
(a) $\frac{1}{2}$ (b) $\frac{2}{3}$ (c) 1 (d) 2

8. What is the area of the square ABCD shown in the diagram?



- (a) 149 cm^2 (b) 169 cm^2 (c) 179 cm^2 (d) 189 cm^2

9. If the base of a parallelogram is $(x + 4)$, altitude to the base is $(x - 3)$, and the area is $(x^2 - 4)$. Then what is the actual area equal to?

- (a) 30 sq. units (b) 40 sq. units (c) 50 sq. units (d) 60 sq. units

10. The area of the circular plot is 3850 sq. metres. What is the circumference of the plot?

- (a) 220 m (b) 240 m (c) 260 m (d) 280 m

11. Of the three numbers, the first is twice the second and the second is thrice the third. If the average of the three numbers is 10, find the largest number?

- (a) 21 (b) 18 (c) 23 (d) 15

12. If $(x - 7)^2 - (x + 8)^2 = 75$. Then value of x is

- (a) 3 (b) 1 (c) -3 (d) -1

13. If Ashok makes a profit of 25% on the selling price, what will be his profit on C.P.?

- (a) 40% (b) 20% (c) $33\frac{1}{3}\%$ (d) 25%

14. If the selling price is doubled, the profit triples. Find the profit percent.

- (a) $66\frac{2}{3}$ (b) 100 (c) $105\frac{1}{3}$ (d) 120

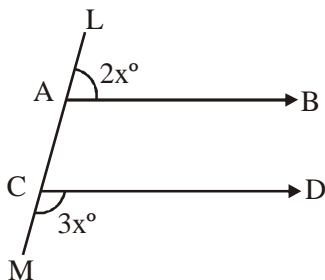
15. In what time will Rs. 72 becomes Rs. 81 at $6\frac{1}{4}\%$ p.a. simple interest?

- (a) 2 years (b) 3 years (c) 2 years 6 months (d) 4 years

16. The average of the first five odd prime numbers is :

- (a) 7 (b) 7.8 (c) 8 (d) 8.7

17. $AB \parallel CD$ and $\angle ACM$ is straight line, $\angle BAC$ is equal to



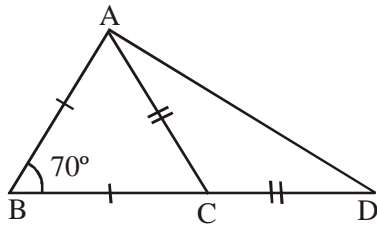
- (a) 106° (b) 108° (c) 110° (d) 109°

18. An entertainment company charged Rs. 200 per ticket for show. The capacity of the show was 500 people but due to over booking the manager had to return Rs. 300 each to 100 people. What is the company's total earning from the show?

- (a) -40000 (b) -30000 (c) 70,000 (d) None of these

19. $(-10) \times [(-5) \times 3]$ is equal to :
 (a) $[(-10)] \times (5) \times 3$ (b) $[(-10) \times (-5)] \times 3$
 (c) $[(-10)] \times (-5) \times (-3)$ (d) None of these
20. What is $0.01 \times 0.01 =$ _____.
 (a) 0.001 (b) 1 (c) 0.0001 (d) 0.1
21. The value of x, if $2^x + 2^x + 2^x = 192$ is :
 (a) 5 (b) $\frac{1}{6}$ (c) 6 (d) none of these
22. Evaluation of $\left[(x^y)^{1-\frac{1}{y}} \right]^{y-1}$ is :
 (a) x^2 (b) x (c) x^3 (d) y^2
23. $\frac{(0.35)^2 - (0.03)^2}{0.19} = ?$
 (a) 0.32 (b) 0.48 (c) 0.76 (d) 0.64
24. Multiply $-6x^2yz$ by $\frac{2}{3}xy^3z^2$
 (a) $-4x^3y^4z^3$ (b) $4x^3y^4z^3$ (c) $4x^2y^2z^4$ (d) $4x^3y^2z^2$
25. A man goes 24m due east and then 10 m due north. How far is he away from his initial position?
 (a) 26 m (b) 27 m (c) 36 m (d) 37 m
26. For a regular polygon of n sides, the sum of all exterior angles is _____.
 (a) 100° (b) 360° (c) 180° (d) 720°
27. The value of $\frac{4.359 \times 4.359 - 1.641 \times 1.641}{4.359 - 1.641}$?
 (a) 6.3 (b) 6 (c) 3.2 (d) 4.6
28. The expression $a^{\frac{2}{3}} \left\{ a^{\frac{1}{3}} \left(a^{\frac{1}{4}} \right)^4 \right\}^{\frac{1}{4}} =$
 (a) $a^{\frac{1}{2}}$ (b) $a^{\frac{1}{6}}$ (c) a (d) 1
29. $[3^{2^3} - (3^2)^3] =$
 (a) 8532 (b) 5832 (c) 3852 (d) 5238
30. Which of the following is incorrect?
 (a) $0.\overline{01} = \frac{1}{90}$ (b) $0.\overline{1} = \frac{1}{9}$ (c) $0.\overline{2} = \frac{2}{9}$ (d) $0.\overline{3} = \frac{1}{3}$
31. Profit % = ?
 (a) $\frac{\text{Loss}}{\text{CP}} \times 100$ (b) $\frac{\text{Profit}}{\text{CP}} \times 100$ (c) $\frac{\text{SP} \times 100}{(100 - \text{Loss}\%)}$ (d) $\frac{\text{CP} \times (100 - \text{Loss}\%)}{100}$

32. In the following figure, find $\angle ADC$.



- (a) 27.5 (b) 28.5 (c) 27° (d) 28°

33. The side opposite to an obtuse angle of a triangle is :

- (a) smallest (b) greatest
(c) half of the perimeter (d) none of these

34. Point of intersection of medians of a triangle is :

- (a) centroid (b) circumcentre (c) in-centre (d) orthocentre

35. A bag contains 4 red, 6 blue and 7 yellow balls. One ball is selected at random. What is the probability that it is a red ball?

- (a) $\frac{5}{17}$ (b) $\frac{17}{5}$ (c) $\frac{4}{17}$ (d) $\frac{17}{4}$

36. In statistics, a suitable graph for representing the partitioning of total into sub parts is :

- (a) bar graph (b) pictograph (c) pie chart (d) line graph

37. If the side of an equilateral triangle is decreased by 20%, its area is decreased by :

- (a) 36% (b) 64% (c) 40% (d) 60%

38. If 50 is subtracted from $\frac{2}{3}$ of a number, the result is equal to sum of 40 and $\frac{1}{4}$ of that number. What is the number?

- (a) 215 (b) 217 (c) 218 (d) 216

39. $121 - 16a^2b^2 = \underline{\hspace{2cm}}$.

- (a) $(11 + 16 ab) (11 - ab)$ (b) $(11 + 16 ab) (11 + ab)$
(c) $(11 - 4 ab) (11 + 4 ab)$ (d) $(11 - 4 ab) (11 - 4 ab)$

40. Which of the following fractions is the largest?

- (a) $\frac{13}{16}$ (b) $\frac{7}{8}$ (c) $\frac{31}{40}$ (d) $\frac{63}{80}$



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A N S W E R S (Date 27-01-2017)

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|---------|---------|---------|---------|---------|
| 1. (a) | 2. (a) | 3. (c) | 4. (b) | 5. (b) |
| 6. (d) | 7. (d) | 8. (b) | 9. (d) | 10. (a) |
| 11. (b) | 12. (c) | 13. (c) | 14. (b) | 15. (a) |
| 16. (b) | 17. (b) | 18. (c) | 19. (b) | 20. (c) |
| 21. (c) | 22. (b) | 23. (d) | 24. (a) | 25. (a) |
| 26. (b) | 27. (b) | 28. (c) | 29. (b) | 30. (a) |
| 31. (b) | 32. (a) | 33. (b) | 34. (a) | 35. (c) |
| 36. (c) | 37. (a) | 38. (d) | 39. (c) | 40. (b) |

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