

GENERAL INSTRUCTIONS:

SECTION A : Answer all questions. Each question carries one mark.

SECTION B : Answer any five questions. Each question carries two marks.

SECTION C : Answer any eight questions. Each question carries three marks.

SECTION D : Answer any six questions. Each question carries four marks.

SECTION E : Answer any one question (six marks).

SECTION F : Answer any one question (six marks).

SECTION - A

I. Multiple choice questions: 10x1=10

- 2^3 is equal to _____.
 a) 8 b) 4 c) 6 d) 2
- The range of the data: 2, 4, 0, 6, 7 is _____.
 a) 4 b) 2 c) 5 d) 7
- An equation remains the _____, when the expressions on the left and on the right are interchanged.
 a) Same b) Different c) Zero d) Changed
- The total measure of the three angles of a triangle is _____.
 a) 170° b) 120° c) 180° d) 360°
- $(-1)^{\text{odd number}}$ = _____.
 a) +1 b) -1 c) 0 d) +2
- The distance around a circular region is known as its _____.
 a) Radius b) Chord c) Diameter d) Circumference
- The money you borrow is also called as _____.
 a) Interest b) Rate c) Principal d) Amount
- There are _____ corners in a cube.
 a) 6 b) 7 c) 8 d) 9
- Circle, square, rectangle, quadrilateral are examples of plane figures as they lack _____.

- a) Face b) Vertices c) Edge d) Height

10. The most common value of the data is _____.

- a) Mean b) Mode c) Median d) None of the above

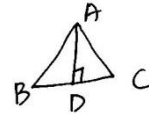
SECTION - B

II. Answer any five from the following: 5x2=10

11. Find $\frac{5}{8}$ of $3\frac{5}{6}$.

12. Solve: $5^6 \div 5^2$.

13. In $\triangle ABC$,



i) AD is _____.

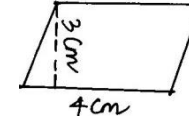
ii) BC is _____

14. Find the mode of 2, 14, 16, 12, 14, 14, 16, 14, 10, 14, 18, 14.

15. Solve: $\frac{3P}{10} = 6$.

16. Draw the net of cube.

17. Find the area of the parallelogram?



SECTION - C

III. Answer any eight from the following: 8x3=24

18. The figure shows two circles with the same centre. The radius of larger circle is 21cm in and the radius of smaller circle is 14cm. Find the area of smaller circle and larger circle. (Take $\pi = \frac{22}{7}$)



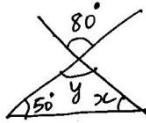
19. a) Which is greater $\frac{1}{3}$ of $\frac{6}{7}$ or $\frac{2}{3}$ of $\frac{3}{7}$.

b) Find $\frac{1}{4}$ of 16.

20. Joe buys a book for Rs. 275 and sells it at Rs. 300. Find the profit percentage?

21. The ages in years of 10 teachers of a school are: 32, 41, 28, 54, 35, 26, 23, 33, 38, 40. Find the mean age of these teachers?

22. Find the value of unknown:



23. i) Identify greater number, 2^5 or 5^2 ?

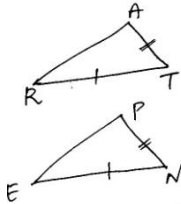
ii) $7^m \times 10^m = \underline{\hspace{2cm}}$.

24. If you have to use SAS criterion, you need to have

i) $RT =$

ii) $PN =$

iii) $\angle T =$



25. Express 768×192 as a product of prime factors only in exponential form?

26. Solve: i) $\frac{P}{7} = -4$.

ii) $10p = 200$.

27. Find the median of the data: 24, 36, 46, 56, 46, 24, 49.

SECTION - D

IV. Answer any six from the following:

6x4=24

28. If Manohar pays an interest of Rs. 800 for 1 year on a sum of Rs. 4500, find the rate of interest?

29. A rectangular park is 45m long and 30m wide. A path 2.5m wide is constructed outside the park. Find the area of the path?

30. Simplify: $\frac{3^5 \times 10^5 \times 25}{5^7 \times 2^5}$.

31. Solve the following equation by Trial and Error method: $4p + 2 = 14$.

32. PQR is a triangle, right angled at Q. If $PQ = 6$ cm, $RQ = 8$ cm, then $PR = ?$

33. The runs scored in a cricket match by 9 players is as follows: 36, 36, 50, 46, 60, 55, 18, 20, 30. Find the mean, median, mode of this data?

34. a) $0.7 \div 10 = \underline{\hspace{2cm}}$. b) $0.9 \times 100 = \underline{\hspace{2cm}}$. c) $8 \div \frac{24}{2} = \underline{\hspace{2cm}}$.

d) Reciprocal of $\frac{1}{11} = \underline{\hspace{2cm}}$.

SECTION - E

V. Answer any one from the following:

1x6=6

35. a) A mathematics teacher wants to compare her students performance in quarterly and half yearly test. Draw a double bar graph for the following and answer the questions given below:

Students	Arun	Harish	Kavish
Quarterly	20	21	24
Half yearly	15	14	25

i) Which student's performance has increased from quarterly to Half yearly?

ii) How many students performance has gone down from quarterly to half yearly?

(OR)

b) Consider this data collected from a survey of a colony.

Favourite food	Noodles	Biryani	Fried rice	Pasta
No. of people	100	250	150	120

i) Draw a bargraph choosing an appropriate scale.

ii) Which food is most popular?

iii) Which is more preferred, noodles or pasta?

SECTION - F

VI. Answer any one from the following:

1x6=6

36. a) Construct $\triangle PAT$ such that $PA = 7$ cm, $TA = 4$ cm, $PT = 3$ cm measure $\angle A$.

(OR)

b) Construct a right angled triangle whose hypotenuse is 6cm long and one of its legs is 4cm long.