

Exam copy  
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**D.A.V. PUBLIC SCHOOLS, BHUBANESWAR**

**TERM - 1 EXAMINATION, 2017-18**

**CLASS - VII**

**SUBJECT- MATHEMATICS**

**Time - 3 Hours**

**Maximum Marks- 80**

**General Instructions:**

- All questions are compulsory.
- This paper has 5 sections.
- Section A contains 1 mark MCQ questions.
- Section B contains 1 mark questions.
- Section C contains 2 marks questions.
- Section D contains 3 marks questions.
- Section E contains 4 marks questions.
- Verify your answers thoroughly.

**SECTION-A**

**(1 X 5=5)**

1. Painting : Artist :: Symphony : \_\_\_\_\_  
(a) Poet      (b) Novelist      (c) Essayist      (d) Composer
2. How many digits are followed by vowels ?  
1A 2E 3U 45 87 DP 9Q 6JI 7KU  
(a) 2      (b) 1      (c) 3      (d) 4
3. A cuboid of dimension of 10 cm x 8cm x 6 cm was painted red. It was cut into cubical blocks each of side 2 cm. Find the number of cubes with 2 faces painted .  
(a) 32      (b) 24      (c) 20      (d) 26
4. A is the brother of B, C is the sister of D, B is the son of C. How is A related to C ?  
(a) Son      (b) Uncle      (c) Niece      (d) Nephew
5. If MOTHER is written as PRWKHU, then UNCLE is written as  
(a) XPFNH      (b) WQFOH      (c) XQFOH      (d) XPFNI

**SECTION-B**

**(1X3=3)**

6. Find the average of  $\frac{4}{5}$ ,  $\frac{2}{3}$ ,  $\frac{1}{2}$
7. Simplify  $16.016 \div 0.004$
8. The point of concurrence of the altitude of a triangle is called \_\_\_\_\_ .

**SECTION-C****(2X8=16)**

9. Find the value of  $1 + \frac{2}{3 + \frac{4}{5}}$
10. Convert  $\frac{27}{7}$  into decimal number.
11. Find  $12\%$  of  $50 + 5\%$  of  $120 =$  \_\_\_\_\_
12.  $\frac{3}{5}x - 6 = 3$ , find  $x$ .
13.  $\frac{2}{3x} - 1 = \frac{1}{12}$ , find  $x$ .
14. In  $\Delta ABC$  if  $\angle A = 44^\circ$ ,  $AB = AC$ , Find  $\angle B$  &  $\angle C$ .
15.  $\Delta ABC$  is right angled at  $\angle B$ ,  $AC = 17$  cm,  $BC = 8$  cm, Find  $AB$ .
16. Find the mean of first 5 odd prime numbers.

**SECTION-D****(3X8=24)**

17. Represent the number line  $\frac{3}{7}, \frac{-10}{7}, \frac{2}{-7}$
18. Arrange the rational numbers  $\frac{-3}{10}, \frac{-7}{-5}, \frac{9}{-15}, \frac{18}{30}$  in descending order.
19. Simplify  $(75.05 \div 0.05) \times 0.001 + 2.351$
20. A square and an equilateral triangle have a side in common. If the side of the triangle is 1.325 cm long, draw the diagram and find its perimeter.
21. The ages of Leena and Meena are in ratio  $7 : 5$ . Ten years hence the ratio of their ages will be  $9 : 7$ . Find their present ages.
22. Kartik has 117 rupees in the form of 5 rupee coins and 2 rupee coins. The number of 2 rupee coins is 4 times that of 5 rupee coins. Find the number of coins of each denomination.
23. If  $O$  is a point in the exterior of triangle  $ABC$  then show that  $2(OA + OB + OC)$  is greater than the perimeter of the triangle.
24. Simple interest on a sum of money at the end of 5 years is  $\frac{4}{5}$  of the sum itself. Find the rate percent per annum.

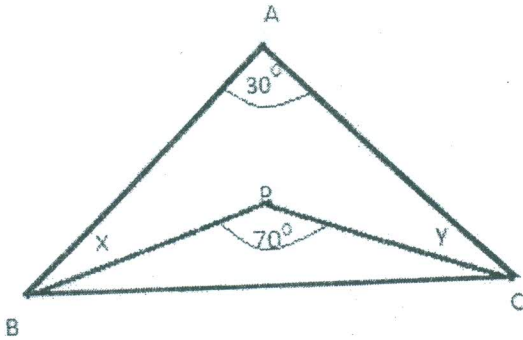
**SECTION-E****(4X8=32)**

25. For  $x = \frac{3}{4}$  and  $y = \frac{-9}{8}$  insert a rational number between  $(x + y)^{-1}$  and  $(x^{-1} + y^{-1})$
26. Find the reciprocal of  $\frac{-2}{3} \times \frac{5}{7} + \left| \frac{-2}{9} \right| \div \frac{1}{3} \times \left| \frac{6}{7} \right|$
27. In a survey it was found that out of 125 people in a park, 12% jog, 16% do Yoga and rest prefer to walk.
- (a) Find the number of people who prefer walk.
- (b) Discuss the importance of exercise like jogging, yoga, walking.

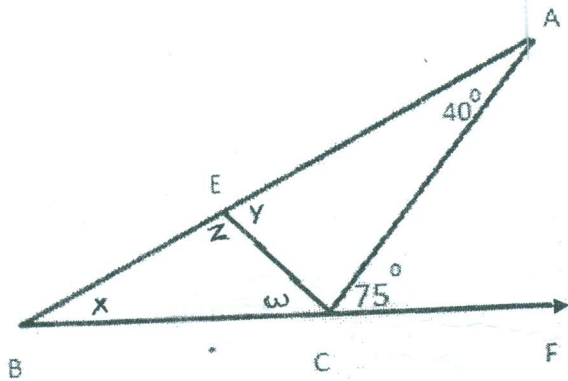
28. A man sold two bed sheets at ₹ 600 each. On one he gains 20% and on the other he loses 25%. How much does he gain or lose in the whole transaction?

29. Simplify :  $(x + 2)(x + 3) + (x - 3)(x - 2) - 2x(x + 1) = 0$

30. In  $\triangle ABC$ ,  $AB = AC$  and in  $\triangle PBC$ ,  $PB = PC$ . Find  $x$ ,  $y$  in the following diagram.



31. In  $\triangle ABC$ ,  $\angle ACF = 75^\circ$  and  $\angle A = 40^\circ$ ,  $AE = AC$ . Find  $x$ ,  $y$ ,  $z$ ,  $w$  in the following diagram.



32. Observe the following data .

Days of the week	MON	TUE	WED	THU	FRI	SAT
No. of mobile phone sets sold	50	45	30	55	27	60

- Draw the bar graph by showing proper scale.
- Find the ratio of the maximum to minimum sale.
- Calculate the average sale.

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