DAV BR PUBLIC SCHOOL, BINA
HALF YEARLY EXAMINATION Session (2024-25)
PRACTICE PAPER

Class: VII | Subject: Maths
Time Allowed: 2 Hrs. | Maximum Marks: 50

SECTION – A (1 x 6 = 6)

Q I CHOOSE THE CORRECT ANSWER:-

1) The centroid of a triangle divides each median in the ratio –

(i) 2:1 (ii) 2:3
(iii) 3:1 (iv) 1:3

2) The hypotenuse of a right triangle is 17 cm and one of the side is 8 cm. The other side is-

(i) 16 cm (ii) 12 cm
(iii) 13 cm (iv) 15 cm

3) 2.7×10^{-3} is equal to –

(i) 0.000027 (ii) 0.00027
(iii) 0.0027 (iv) 2.007

4) If x , y and z are rational numbers, then the property $(x + y) + z = x + (y + z)$ is known as –

(i) Commutative Property (ii) Associative Property
(iii) Distributive Property (iv) Closure Property

5) The point of concurrence of the altitudes of a triangle is called the _____ of the triangle.

(i) orthocenter (ii) incentre
(ii) circumcentre (iv) circumcircle

6) The value of $(2^0 \times 3^0) + 4^0$ is ____

(i) 1 (ii) 2
(iii) 3 (iv) 4

SECTION B (2 x 4 = 8)

7) Nitin's grandmother is suffering from fever for many days. He wants to go his home town, Ranchi to his grandmother. His house is 325 km away from Patna. He covered 1/5 th of his journey by bus, 227.5 by train, 16.25 km by taxi and rest on foot. Now give answers of the following questions.

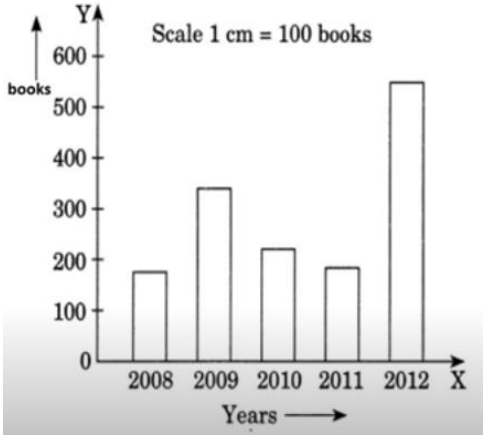
a) How much distance did Nitin cover by bus?
(i) 300 km (ii) 80 km (iii) 65 km (iv) 25 km

b) How much distance is covered on foot?
(i) 12.5 km (ii) 16.25 km (iii) 16.75 km (iv) 18 km

c) What is the total distance covered by bus, train and taxi?
(i) 308. 25 km (ii) 308 km (iii) 325 km (iv) 308.75 km

d) 16.25 km distance is equally covered by-
(i) Taxi & Bus (ii) Bus & Train (iii) Taxi & Foot (iv) Bus & Foot

8) Read the bar graph which shows the number of books sold by a bookstore during five consecutive years and answer the following questions:



a) About how many books were sold in 2012?
(i) 500 (ii) 550 (iii) 525 (iv) 520

b) In which year were about 350 books sold?
(i) 2008 (ii) 2009 (iii) 2010 (iv) 2007

c) In which year were maximum books sold?
(i) 2011 (ii) 2010 (iii) 2012 (iv) 2008

d) Can you explain how would you estimate the number of books sold in 2007?
(i) 100 (ii) 120 (iii) 140 (iv) 0

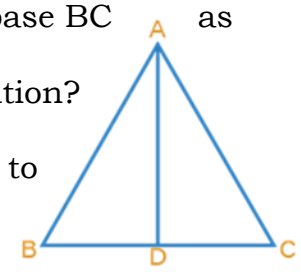
SECTION - C (2 x 5 = 10)

9) The vertical angle of an isosceles triangle is 80^0. Find the measurement of its base angles.

10) The lengths of two sides of a triangle are 12 cm and 15 cm. Between what two measures should the length of the third side fall?

11) Write 0.0000076 in the form k x 10n

12) ΔABC is an isosceles with AB = AC. D is the mid-point of base BC as shown in the figure.



(i) Is ΔADB ≅ ΔADC? If yes, by which congruence condition?

(ii) State the three pairs of matching parts that you use to arrive at your answer.

13) Simplify : $\frac{-4}{5} - \frac{3}{15} + \frac{7}{20}$

SECTION D (3 x 7 =21)

14) Simplify and express the result as a rational number in its lowest terms.
1.44 x (144 ÷12) – 0.225 + 3.276

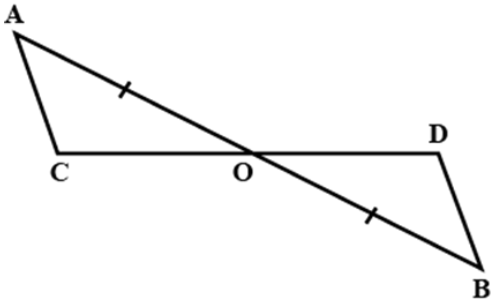
15) By what number should we multiply (2^{-5}) so that the product may be equal to (2^{-1})?

16) The foot of a ladder is 6 m away from a wall and its top reaches a window 8 m above the ground. If the ladder is shifted in such a way that its foot is 8 m away from the wall, to what height does its top reach?

17) Find the mean, median and mode of the given data:
35, 32, 35, 42, 35, 32, 34

18) Divide the sum of $\frac{5}{21}$ and $\frac{4}{7}$ by their difference.

19) In the given figure, AO= BO and ∠A =∠B



(i) Is ∠AOC = ∠BOD? Why?
(ii) Is ΔAOC ≅ ΔBOD? Why which Congruence condition?
(iii) Is ∠ACO = ∠BDO? Why?

20) Find the value of x so that-
$\left(\frac{2}{3}\right)^3 \times \left(\frac{2}{3}\right)^6 = \left(\frac{2}{3}\right)^{3x}$

SECTION E (1 x 5 =5)

21) Verify: a x (b+c) = (a x b) + (a x c) for the following values of a, b and c

a = 2/3 b = -5/6 and c = -7/9

Best of Luck