

AP SUPER GURU MODEL TEST PAPER – 6

MATHEMATICS (UNSOLVED)

Time Allowed : 3 Hours

CLASS – VIII

Maximum Marks : 80

NOTE

1. All the questions are compulsory.
2. **In Part – A** there will be Q.No. 1 to 3.
 - (i) Question No. 1 have 16 questions of Multiple Choice of **one** mark each.
 - (ii) Question No. 2 have 7 questions of Fill in the Blanks of **one** mark each.
 - (iii) Question No. 3 have 7 questions of True/False of **one** mark each.
3. **Part – B** have questions from No. 4 to 7 each of **two** marks.
4. **Part – C** have questions from No. 8 to 13 each of **four** marks and there is internal choice in question number 8, 11 and 12.
5. **Part – D** have questions from No. 14 to 16 each of **six** marks and there is internal choice of all questions.

PART – A

Note : Each question is of 1-1 mark in this part :

1. Choose the right option from the following questions :

(i) Which of the following rational number lies between 0 and 1 ?

(a) $\frac{7}{4}$

(b) $\frac{2}{7}$

(c) $\frac{7}{3}$

(d) $\frac{6}{5}$

(ii) Which of the property of multiplication is used in $\frac{5}{4} \times 2 = 2 \times \frac{5}{4}$

(a) Additive

(b) Associative

(c) Commutative

(d) None of these

(iii) What is the value of 'x' for the equation $3x + 4 = x - 6$?

(a) 3

(b) 4

(c) -5

(d) 5

(iv) If $4y$ and 100° are opposite angles of a parallelogram then the value of 'y' will be ?

(a) 20°

(b) 100°

(c) 40°

(d) 25°

(v) Which of the following number is not a perfect square number ?

(a) 728

(b) 729

(c) 144

(d) 625

(vi) Which of the following number is subtracted from 288 in order to make it a perfect square?

(a) 12

(b) 32

(c) 22

(d) 42

(vii) By which least number 108 is multiplied so that it become a perfect cube ?

(a) 3

(b) 4

(c) 2

(d) 6

(viii) What is the ratio of 200 Paise to Rs. 3 ?

- (a) 3 : 2 (b) 200 : 3 (c) 3 : 200 (d) 2 : 3

(ix) What is the co-efficient of x in $5x^2 - x + 6$?

- (a) -1 (b) 1 (c) x (d) 5

(x) What is the area of a square of diagonal ' d ' ?

- (a) d^2 (b) $\frac{1}{2} d^2$ (c) $2d^2$ (d) $\frac{1}{2} d$

(xi) What is the volume of a cube having edge 1.1 cm ?

- (a) 13.31 (b) 133.1 (c) 1.331 (d) 1331

(xii) What is the standard form of 1040352 ?

- (a) 10.40352×10^7 (b) 1.040352×10^7
(c) 10.40352×10^6 (d) 1.040352×10^6

(xiii) What is the value of $(5^3)^4$?

- (a) 5^{12} (b) 5^7 (c) 5^{-1} (d) $5^{\frac{4}{3}}$

(xiv) What is the common factor of $10xy$ and $12y$?

- (a) $10x$ (b) $2y$ (c) $2xy$ (d) $2x$

(xv) $p^3 - p = \dots\dots\dots$

- (a) $p(p^2 + 1)$ (b) $(p^2 - 1)(p^2 + 1)$
(c) $p(p - 1)(p + 1)$ (d) $p^2(p - 1)$

(xvi) What are the co-ordinates of a point which lies on both axis i.e. x -axis and y -axis ?

- (a) (1, 1) (b) (1, 0) (c) (0, 1) (d) (0, 0)

2. Fill in the blanks.

- (i) Sum of angles of a triangle is
- (ii) Probability of getting a vowel from English alphabet is
- (iii) If $14^2 = 196$ then $\sqrt{196} = \dots\dots\dots$
- (iv) Least slab in G.S.T. is =
- (v) Area of four walls of a rectangular room is
- (vi) $x^0 = \dots\dots\dots$
- (vii) Ordinate of point (7, 4) is

3. True/False.

- (i) If $3x - 1 = 15 - x$ then $x = 4$. (True/False)
- (ii) Diagonals of a rhombus are equal. (True/False)
- (iii) Tally marks are used to find frequency. (True/False)
- (iv) Volume of a cube of edge 4cm is 12cm^3 . (True/False)
- (v) Sum of $(2a - b)$ and $(a - 2b)$ is $(3a - 3b)$ (True/False)
- (vi) If ' x ' and ' y ' are in inverse proportion then $\frac{x}{y} = K$. (True/False)
- (vii) $(a + b)^2 + (a - b)^2 = 2a^2 - 2b^2$ (True/False)

PART - B

Note : This part has questions of 2-2 mark :

4. Solve the following $\frac{-11}{2} + \frac{7}{6} - \frac{5}{8}$
5. Write $(19)^2$ in the form of sum of two consecutive numbers.
6. Find the cube root of 1331 by prime factorisation method.
7. Solve the following $\frac{3^{-5} \times 10^{-5} \times 25}{5^{-7} \times 6^{-5}}$

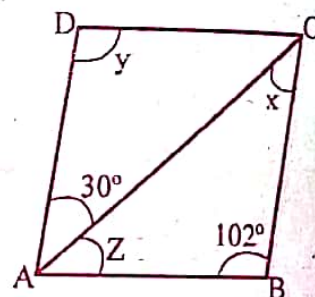
PART - C

Note : This part has questions of 4-4 mark :

8. Preet is 6 years older than Abdul. Six years ago, Preet's age was four times Abdul's age. Find their present ages.
9. Find the value of x , y and z from the given below.

Or

Diagonal of a rhombus are 6cm and 8cm. Find the perimeter of Rhombus.



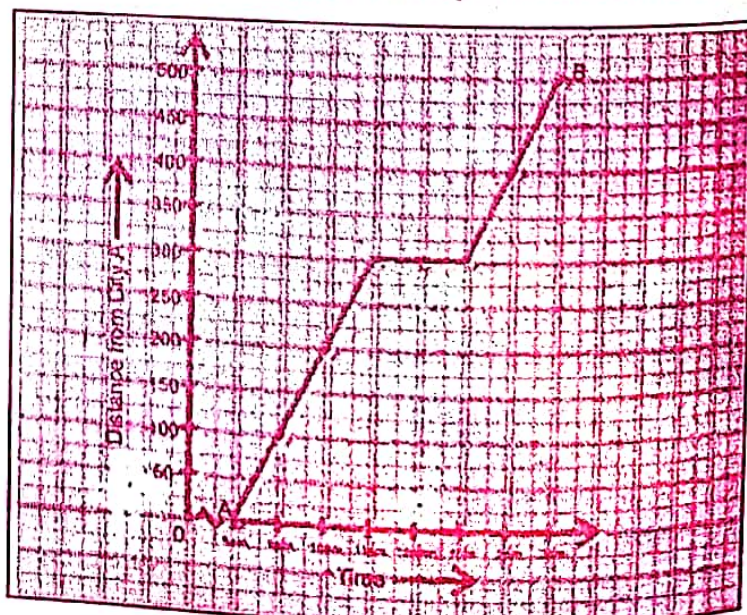
10. Subtract $x + 3y - 5z + 7$ from the sum of $2x - 3y + 4z - 2$ and $-3x + 8y + 12z - 4$.

Or

Find the following $(a + b)(a - b) + (b + c)(b - c) + (c + a)(c - a)$

11. A machine in a soft drink factory fills 840 bottles in 6 hours. How many bottles will it fill in 5 hours?
12. Divide $(3 - 11x + 6x^2)$ by $(-1 + 3x)$
13. The given graph describes the distance travelled by a car from a city A at different times when it was travelling from city A to city B, which are 500 km apart. Study the graph and answer the following questions.

- (i) When the car started its journey?
- (ii) How far did the car go in the first hour?
- (iii) Did the car stop for some duration its journey? For what time duration the car stopped?
- (iv) When the car reached at B?
- (v) What was the total distance travelled by car in first five hours?



Or

The following table shows the quantity of petrol and its cost.

Quantity of Petrol (in litres)	1	5	10	15	20
Cost of Petron (in Rs.)	70	350	700	1050	1400

Plot a graph to show the data.

PART – D

Note : This part has questions of 6-6 mark.

14. Construct a frequency distribution table for the data on weights (in Kg) of 20 students of a class using interval 30-35, 35-40 and so on.

40, 48, 33, 38, 31, 60, 53, 49, 36, 46, 34, 65, 55, 49, 41, 47, 44, 39, 38, 42.

Or

The number of students in a hostel speaking different languages is given below

Language	Hindi	Punjabi	English	Marathi	Tamil	Bengali	Total
No. of students	10	30	12	9	7	4	72

15. An article marked at Rs. 1920 is sold for Rs. 1840. Find the discount and discount percentage?

Or

A sum of Rs. 5000 is borrowed at a rate of 8% per annum for 2 years. Find the simple interest and the amount to be paid at the end of 2 years.

16. The curved surface area of a hollow cylinder is 4224 cm^2 . It is cut along its height and formed a rectangular sheet of width 33cm. Find the perimeter of the sheet.

Or

A milk tank is in the form of a cylinder whose radius is 1.5m and length is 7m. Find the quantity of milk in litres that can be stored in the tank.

Answers of Multiple Choice Questions

- (i) (b), (ii) (a), (iii) (c), (iv) (d), (v) (a), (vi) (b), (vii) (c), (viii) (d), (ix) (a), (x) (b), (xi) (c), (xii) (d), (xiii) (a), (xiv) (b), (xv) (c), (xvi) (d)
- (i) 180° , (ii) $5/26$, (iii) 14, (iv) 0%, (v) $2(l+b)h$, (vi) 1, (vii) 4.
- (i) True, (ii) False, (iii) True, (iv) False, (v) True, (vi) False, (vii) False.

