

# Vasishtha Model Test Paper - 2025

## (12)(E)

### Standard Maths Paper - 1

Shree Vasishtha Vidhyalaya - Vav

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[Time: 3 Hour]

[Marks: 80]

● **Instructions:**

- 1) Write in a clear legible handwriting.
- 2) This question paper has four Sections A, B, C & D and Question Numbers from 1 to 54
- 3) All Sections are compulsory. General options are given.
- 4) The numbers to the right represent the marks of the question.
- 5) Draw neat diagrams wherever necessary.
- 6) New sections should be written in a new page. Write the answers in numerical order.
- 7) Calculator and smart watch are not allowed.

#### SECTION -A

- **Answer the following questions as required(Que. 1 to 24) (1 mark each)** (24)
- **Choose the right option So that the statement become true (Que. No. 1 to 6)** (06)
1. If  $HCF(65, 117) = 65m - 117$  then,  $m =$  \_\_\_\_\_  
 (A) 4 (B) 2 (C) 1 (D) 3
  2. The quadratic polynomial \_\_\_\_\_ are 7 and 5.  
 (A)  $X^2 + 12X - 35$  (B)  $X^2 - 12X + 35$   
 (C)  $X^2 + 35X - 12$  (D)  $X^2 - 35X + 12$
  3. If  $2x + 3y = 15$  and  $3x + 2y = 25$  then  $x - y =$  \_\_\_\_\_  
 (A) 10 (B) -10 (C) 40 (D) -40
  4. If the determinate of the equation  $2x^2 + 5x - k = 0$  is 81,  $k =$  \_\_\_\_\_  
 (A) 5 (B) 7 (C) -7 (D) -5
  5. The  $n^{\text{th}}$  term at an AP is  $(2n + 1)$  So the sum is first  $n$  terms  
 (A)  $n(n+1)$  (B)  $n(n+2)$  (C)  $(n-1)n$  (D)  $(n-2)n$
  6.  $AB \parallel CD$  in the parallelogram ABCD. And AC and BD intersect at point M. if  $MA = 6$ ,  $MB = 9$  and  $MC = 8$  then,  $MD =$  \_\_\_\_\_  
 (A)  $\frac{58}{9}$  (B) 12 (C)  $\frac{58}{8}$  (D) 11

Choose the correct answers from the answer given in brackets and write the following statement as true : (Que. No. 7 to 12)

7. The distance of the point (5, 3) to X-axis is \_\_\_\_\_. (0, 3, 5)
8.  $\sqrt{1 - (\sin^2\theta + \cos^2\theta)} = \underline{\hspace{2cm}}$  (2, 0,  $\sqrt{2}$ )
9. Maximize the circle \_\_\_\_\_ parallel tangents. (1, 2, 3)
10. An angle of \_\_\_\_\_ degree is made by the clock face in a minute. ( $0.5^\circ$ ,  $0.05^\circ$ ,  $50^\circ$ )
11. The total surface area of a closed hemisphere is \_\_\_\_\_. ( $\pi r^2$ ,  $2\pi r^2$ ,  $3\pi r^2$ )
12. For any information,  $Z - M = 6$  then  $M - \bar{X} = \underline{\hspace{2cm}}$ . (2, 3, 12)

State whether the following statements are true or false (Que. No, 13 to 16)

13. For any event A,  $P(A)$  is always greater than  $p(A')$
14. The Graph of  $y = 0$  shows the y-axis.
15. The determinat of the quadratic equation  $2x^2 - 8x - 5$  is 104
16. The point (3, -7) is at a distanced of 7 on the y-axis.

Answer the following questions in one sentence, word or number (Que. No. 17 to 20)

17. Find the area of a sector of a circle with radius R if angle of the sector is  $P^\circ$
18. For given data  $\sum xi = 405$  &  $\sum fi = 27$ , then find  $\bar{X}$ .
19. HCF of 35 and 22 is ?
20. State the standardized format of the quadratic equation.

Match following : (Que. No. 21 to 24)

A	B
21. $a\beta + \beta\gamma + \gamma\alpha$	(a) $\frac{-b}{a}$
22. $a\beta\gamma$	(b) $\frac{c}{a}$
	(c) $\frac{-d}{a}$

A	B
21. $\sin 60^\circ$	(a) $1/2$
22. $\cos 60^\circ$	(b) $\sqrt{3}/2$
	(c) $1/\sqrt{2}$