

SSC PUBLIC EXAMS – TELANGANA STATE**MODEL PAPER-2**

SUB : Maths,

Class: X

Paper-I

Time : 2 hours 45 min

Max. Marks : 40

Instructions:

- i) Read the following Question paper and understand every Question thoroughly without writing anything. 15 Minutes time is allotted for this.
- ii) Answer all the Questions from the given “four” Section
- iii) Write answers to the objective type Questions (Section-IV) on answer sheet. But at same place.
- iv) In Section-III, every Question has internal choice. Answer to anyone alternative.

Section-I**I. Answer all the following Questions.**

Each Questions carries 1 Mark

7x1=7

1. Find the value of $\log_2 5^{12}$?
2. B is the set of all months in a year having 30days. Write in Roster form?
3. Find cubic polynomial having the zero values -7, 1,2
4. Find the value of ‘K’ for which the pair of equations $2x-ky+3=0$, $4x+6y-5=0$ represent parallel lines?
5. Check whether 1 and $\frac{3}{2}$ are the roots of the equation $2x^2-5x+3=0$
6. $x+2$, $x+4$, $x+9$ terms are possible in A.P Give Resons?
7. Distance between two points $(-4,0)$ and $(6,0)$

Section-II**II. Answer all the problems**

Each Questions carries 2 Mark

6x2=12

8. The set is multiple of ‘2’ and the set is multiple of ‘3’ are disjoint sets or not? Give Reasons.
9. $A = \{x : x \in \mathbb{N}, x < 6\}$ and $B = \{x : x \in \mathbb{N}, 3 < x < 8\}$ then prove that $A - B \neq B - A$ dhow Venn diagram.
10. Length and breadth of roots of $x^2-6x+8=0$ then find the area of rectangular.
11. The sum of the roots is (0 and product is -1 then the quadratic polynomial?

12. Find the 20th term from the end of the A.P. 3,8,13....253.
13. Can you draw a triangle with vertices (1,5), (5,8) and (13,14)? Give Reason.

Section-III**4x4=16**

14. A) Prove that $3+2\sqrt{5}$ is an irrational number [OR]
B) Show that 'q' any positive odd integer is of the form $6q+1$, or $6q+3$ or $6q+5$ where 'q' is some integer.
15. A) Draw a graph for the polynomial $P(x)=x^2-3x-4$ and find its zeros from the graphs [OR]
B) Draw a graphical representation of linear pair of equation be $2x+y=5$, and $3x-2y=4$ and find its solution?
16. A) Solve the following pair of equations by reducing them to a pair of linear equations. $\frac{2}{x} + \frac{3}{y} = 13, \frac{5}{x} - \frac{4}{y} = -2$ [OR]
B) If the sum of first 7 terms of an A.P is 49 and that 17 terms is 289, find the sum of first 'n' terms.
17. A) How many three-digit numbers are divisible by 7? [OR]
B) (7,-2), (5,1), (3,K) points are collinear. Then find 'K' value?

i. Choose the correct answer and write the corresponding alphabet (A,B,C,D) in the given answer booklet.

ii. Answer all questions and write then at the same place in your booklet.

iii. Each question carries 1/2 marks.

18. $\sqrt{2}=1.414$ then find $\sqrt{8}=\underline{\hspace{2cm}}$

- a) 2.818 b) 2.282 c) 2.828 d) None

19. $\log_c^{\sqrt{c}}=\dots\dots\dots$

- a) 2 b) -1 c) 1 d) 1/2

20. $A=\{x;x \neq x\}$ then $n(A) = \underline{\hspace{2cm}}$

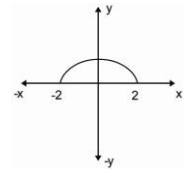
- a) \emptyset b) 0 c) 8 d) 3

21. Which is the parallel lines.

- a) $x-2y+7=0; 3x+2y-1=0$ b) $2x+3y-7=0; 6x+9y-31=0$
 c) $8x-3y+1=0; 3x-8y+1=0$ d) above all

22. $y=P9x$) figure are given below the number of zero value = $\underline{\hspace{2cm}}$

- a) 4 b) 2
 c) 3 d) None



23. $3x-8y=-18$ then $y=\underline{\hspace{2cm}}$

- a) $\frac{3x-1}{4}$ b) $\frac{18+8y}{21}$ c) $\frac{8-3x}{3}$ d) $\frac{18-3x}{8}$

24. The $(7,5) \in \underline{\hspace{2cm}}$ Quadrant

- a) Q4 b) Q2 c) Q1 d) Q3

25. $x^3-4x^2-x+1=(x-2)^3$ then quadratic equation is $\underline{\hspace{2cm}}$

- a) $x^2-13x+1=0$ b) $2x^2-13x+9=0$ c) $3x^2-8x+1=0$ d) None

26. Mean of 'a' and 'b' is $\underline{\hspace{2cm}}$

- a) $\frac{a-b}{2}$ b) $\frac{a}{2}$ c) $\frac{a-b}{12}$ d) $\frac{a+b}{2}$

27. $(0,0), (a,0)$ and $(0,b)$ are collinear points then $\underline{\hspace{2cm}}$

- a) $ab=0$ b) $a=b$ c) $a=-b$ d) $a-b=c$