अनुक्रमांक | | | | | | **T** APS–(910) Math (E)

Annual Exam. 2016 – 2017

Class — 9

Subject —Maths

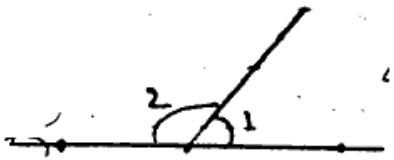
Time : 3 ¼ Hours **Marks : 100**

Note: 1. **Draw a graph paper in Q. No. 26.**

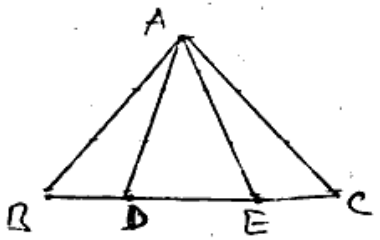
2.

Q.No.	Marks per question
1-10	1
11-15	2
16-25	4
26-30	8

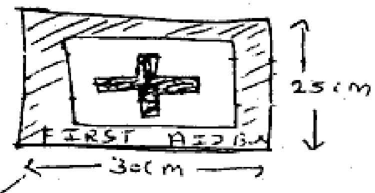
1. If $\sin\theta = \frac{5}{13}$ Then find value of $\cos\theta$. 1
2. If three angle's of quadrilateral are 75°, 90° & 75°. Then find fourth angle. 1
3. Write the value of each angle in eqvilator triangle. 1
4. What coordinate of origin. 1
5. What is the definition of Trapezium. 1
6. In right angle triangle Δ ABC, ∠C = 90°, then which side is the biggest of ΔABC. 1
7. If y = 2x + 5 and x = 5, then find the value of y. 1
8. Write ratio of side & digonal of a square. 1
9. In ΔABC, AB = 3 cm, BC = 4 cm and CA = 5 cm, Write of perimetre of ΔABC. 1
10. In two digit no. unit digit is y & tenth digit is x, then write the number. 1
11. Multiply by sutra urdhva. Tiryagbhyam. 362 × 143 2
12. Factorise $x^3 - 64$ by use identities. 2
13. In given figure ∠1 and ∠2 are linear. If ∠2 – ∠1 = 18° then find value of ∠1 and ∠2. 2



14. Prove that in an isos... are equal.
15. How much time will be needed to a minute arm of clock to make $\frac{3\pi}{2}$ radian angle. 2
16. Locate $\sqrt{2}$ on the number line. 4
17. The ratio of two numbers is 3 : 4. If 5 is subtracted from each of the number. The ratio becomes 5 : 7, find the numbers. 4
18. In given figure AB = AC and BE = CD, prove that AD = AE. 4



19. The line draw through the mid point of one side of a triangle, parallel to another side bisects the third side. 4
20. ABC and BDE are two equilateral triangles such that D is the mid point of side BC. Show that : ar (BDE) = $\frac{1}{4}$ ar (ABC). 4
21. Find area of quadrilateral ABCD. given AC = 15 cm side AB = 7 cm, BC = 12 cm, CD = 12 cm and AD = 9 cm. 4
22. A box 1 m long, 60 cm wide and 40 cm deep in to be made. Write cost of painting at the are of Rs. 20 per m^2. 4
23. Construct a ΔABC given side AB = 6 cm, angle ∠ABC = 60° and ∠ACB = 30°. 4
24. Construct a grouped frequency distribution table with class size 5 for the date given– 13, 11, 8, 19, 0, 44, 27, 10, 8, 35, 13, 27, 30, 17, 43, 23, 19, 43, 17, 7. 4
25. Find the cost of making two rectangular board at the rate of Rs. 10 per squre centimeter size of rectangular informational sign board is 30° × 25°. 4



26. $x + y = 3$

$3x - 2y = 4$

Solved eq^n by graph method. 8

27. In given figure, 0 is interial point in a triangle then prove that

(BC + AB + AC) ~~< (AO + BO +~~ CO) 8

< 2(AO + BO + CO)

Or Divid by Dhwajank method

1234 ÷ 42

28. *Construct* a trapezium PQRS in which PQ || RS, PQ = 6 cm, RS = 3 cm, PS = 3 cm and QR = 5 cm. 8

29. If ABCD is a quadrilateral, then prove that– 8