

Annual Exam. 2016 - 2017

Class — 9

Subject — Maths

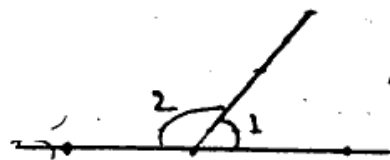
Time : 3 ¼ Hours

Marks : 100

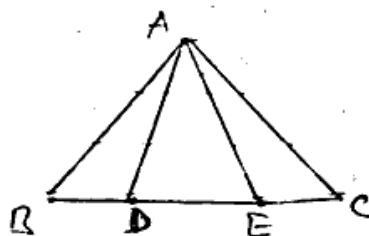
Note: 1. Draw a graph paper in Q. No. 26.

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

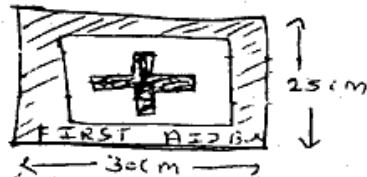
1. If $\sin \theta = \frac{5}{13}$ Then find value of $\cos \theta$. 1
2. If three angle's of quadrilateral are 75° , 90° & 75° . Then find fourth angle. 1
3. Write the value of each angle in equilateral triangle. 1
4. What coordinate of origin. 1
5. What is the definition of Trapezium. 1
6. In right angle triangle ΔABC , $\angle C = 90^\circ$, 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 & diagonal of square. 1
9. In ΔABC , $AB = 3$ cm, $BC = 4$ cm and $CA = 5$ cm, Write of perimeter 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 $\angle 1$ and $\angle 2$ are linear. If $\angle 2 - \angle 1 = 18^\circ$ then find value of $\angle 1$ and $\angle 2$. 2



4. Prove that ... are equal.
5. How much time will be needed to a minute arm of clock to make $\frac{3\pi}{2}$ radian angle. 2
6. Locate $\sqrt{2}$ on the number line. 4
7. 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
8. In given figure $AB = AC$ and $BE = CD$, prove that $AD = AE$. 4



9. The line draw through the mid point of one side of a triangle, parallel to another side bisects the third side. 4
10. 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 $\angle ABC = 60^\circ$ and $\angle ACB = 30^\circ$. 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 square centimeter size of rectangular informational sign board is $30^\circ \times 25^\circ$. 4



(26) $x + y = 3$

$3x - 2y = 4$

Solved eqⁿ by graph method.

27. In given figure, O is internal point in a triangle then prove that
 $(BC + AB + AC) < 2(AO + BO + CO)$



$BC + AB + AC < 2(AO + BO + CO)$

Or Divid by
 Dhwanika
 method

28. Construct a trapezium PQRS in which $PQ \parallel RS$, $PQ = 6$ cm, $RS = 3$ cm, $PS = 3$ cm and $QR = 5$ cm.

29. If ABCD is a quadrilateral, then prove that—