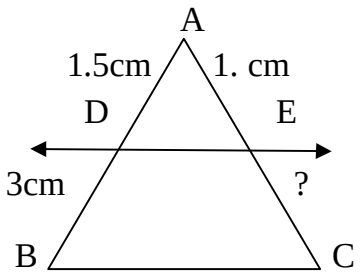
MODEL PAPER – II , PAPER – II

SECTION – I

PART A

1. In the adjacent figure if DE // BC then find EC ?



2. IF the radius of a circle is double What about its area?
3. Write the formula to find the volume of cylinder and Explain each in it ?
4. It is right to say that $\sin(A + B) = \sin A + \sin B$ Justify? your answer?
5. IF P(E)=0.05 What is the probability of not 'E'?
6. Find the mode of given data 2,2,2,3,3,3,4,4,4,5,5,5,6,6,6 ?
7. Express $\cos\theta$ in terms of $\tan\theta$?

SECTION-II

8. If$\sin(A - B) = \frac{1}{2}$,$\cos(A + B) = \frac{1}{2}$, where 0°<A+B≤90° and A>B find A and B ?
9. A ladder 25m long reaches a window of building 20m above the ground determine the distance from the foot of the ladder to the building ?
10. A cylinder and cone have bases of equal radii and are of equal height. Show that their volumes are in the ratio of 3:1?
11. Write the formula of mean for grouped data and explain each term in it ?
12. Draw a circle and two lines parallel to a given line drawn out side the circle such that one is a tangent and the other a secant of the circle ?
13. Rinky observes a flower on the ground from the bacolony of the first floor of a building at an angle of depression 'B°'. the height of the first floor building is 'X' meters draw the diagram this data?

SECTION-III

14. For which value of an acute angle Θ, $\frac{\cos\theta}{1-\sin\theta} + \frac{\cos\theta}{1+\sin\theta} = 4$ is true ?

(or)

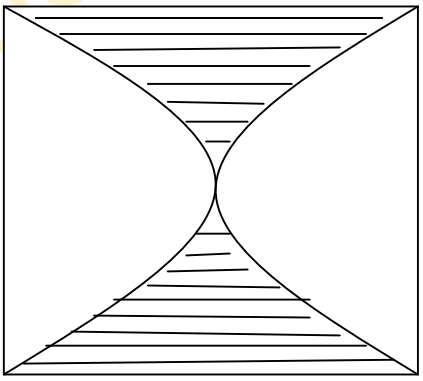
One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting 1]a face card 2]jack of hearts 3]a spade 4]queen of diamonds.

15. A survey conducted on 20 households in a locality by a group of student resulted in the following table for the number of family members in a household Find the mode ?

Family size	1-3	3-5	5-7	7-9	9-11
No.of families	7	8	2	2	1

(or)

Find the area of the shaded region in figure. If ABCD is square of side 70cm and APD and BPD are semicircle (use$\pi = \frac{22}{7}$).



16. A tree breaks due to storm and the broken part bends so that the stop of the tree touches the ground by making 30^0 angle with the ground. The distance between the foot of the tree and the top of the tree on the tree on the ground is6cm find the height of tree before falling down ?

(or)

A 20m deep well of diameter 7m is dug and the earth got by digging is evenly spread out to form a out to form a rectangular platform of base 22m X 14m find the height of the platform ?

17. Construct a triangle of sides 4cm, 5cm, 6cm, then construct a triangle similar to it whose sides are $\frac{2}{3}$ of the corresponding sides of the first triangle?

(or)

The following table gives the literacy rate (in percentage) of 35 cities. Find the mean literacy rate?

Literacy rate in %	45-55	55-65	65-75	75-85	85-95
No. of cities	3	10	11	8	3

PART-B

18. ΔABC~ΔPQR and the parameter of ΔABC is 32cm. and parameter of triangle PQR is 48cm and PR=6cm then AC=_____
A]7 B]6 C]4 D]13

19. $sin^2\theta + cos^2\theta$=_____
A]1 B]11 C]9 D]3

20. IN a cylinder =6cm. find the length of the tangent to circle with center 'O' and from a point 'P' such that OP=10cm____
A]10 B]3 C]9 D]3

21. In a cylinder R=3.5cm, B=10cm, then find the curved surface area_____cm^2
A]1600 B]120 C]220 D]1800.

22. IF $\sin\theta = \cos\theta$ then Θ=_____
A]45^o B]60^o C]90^o D]None

23. The 25 observations are arranged in ascending order then find median._____
A]12 B]13 C]14 D]15

24. P(E)=0.82 then P(E)=_____
A]0.18 B]0.28 C]0.38 D]15

25. A oye is thrown ones then find probability of even numbers._____
A]$\frac{1}{6}$ B]$\frac{1}{3}$ C]$\frac{1}{2}$ D]$\frac{2}{5}$

26. If cone and hemispheres are equal base and equal volumes then find the ratio's of heights_____
A]2:1 B]3:1 C]1:1 D]2:1

27. Find the mean of 2,4,0,8,10,12_____
A]6 B]10 C]12 D]None

THE END