Q.P. Code: **16ME302** **R16**

Reg. No. | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY :: PUTTUR

(AUTONOMOUS)

B.Tech I Year I Semester (R16) Supplementary Examinations June 2017

ENGINEERING GRAPHIS

(Common to ECE & CSE)

(For Students admitted in 2016 only)

Time: 3 hours Max. Marks: 60

(Answer all Five Units 5 X 12 = 60 Marks)

UNIT-I

1 A fixed point is 65 mm from a fixed straight line. Draw the locus of a point 'P' moving such a way that its distance from the fixed straight line is equal to its distance from the fixed point. Name the curve. Draw a tangent and normal to the curve at any point on it. 12 M

OR

2 A circle of 40 diameter rolls outside on another circle of diameter 40 mm for one revolution. Draw the path traced by a point on the generating circle for one complete revolution. Name the curve. Also draw a tangent and normal to the curve at any point on it. 12 M

UNIT-II

3 a. Draw the projections of the following points on the same reference line keeping the projectors 25 apart. 6 M
i) A is 40 above H.P and 25 mm in front of V.P.
ii) B is 15 above H.P and 40 mm behind V.P.
iii) C is 2.5 cm below H.P and 25 mm behind V.P
iv) D is 4 cm below H.P and 2.5 cm in front of V.P.

b. Two points A and B are in H.P. The point A is 30 mm in front of V.P while B is behind V.P. The distance between their projectors is 75 mm and the line joining their top views makes an angle of 45^0 with xy. Find the distance of the point B from V.P. 6 M

OR

4 Top view and front view of a line AB 80 long, measure 60 and 72 respectively. End A of the line is in H.P and end B in V.P. Draw its projections. Also locate its traces. 12 M

UNIT-III

5 A regular pentagon of 30 mm sides is resting on HP on one of its sides while its opposite vertex (corner) is 30 mm above HP. Draw projections when side in HP is 30^0 inclined to VP. 12 M

OR

6 Draw the projections of a pentagonal pyramid side of base 45 and altitude 65, when (a) one of its triangular faces is ⊥r to H.P. (b) one of its sloping edges is vertical. 12 M

UNIT-IV

7 A square prism of base 50 side and 100 height stands with its base on the ground such that all the rectangular faces are equally inclined to the V.P. It is cut by a section plane perpendicular to the V.P such that the true shape of the section is a rhombus of longer diagonal 90. Find the inclination of the section plane with the H.P and draw the front view, sectional top view and true shape of the section. 12 M

OR

8 A pentagonal pyramid, side of base 30 and height 52 stands with its base on H.P with an edge of the base parallel to V.P. It is cut by a section plane perpendicular to V.P and inclined at 40^0 to H.P and passing through a point on the axis, 32 above the base. Draw the development of the lateral surface of the cut pyramid. 12 M

UNIT-V

9 Draw the front view, top view and side view of the object shown in fig. 1. (Follow the first angle projection). 12 M

OR

10 Draw the isometric view for the orthographic views shown in fig.2. 12 M

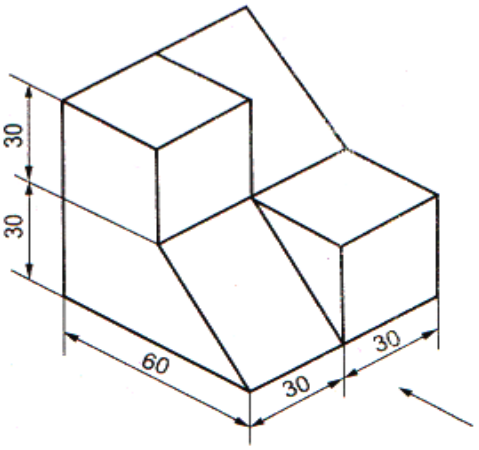

Fig. 1

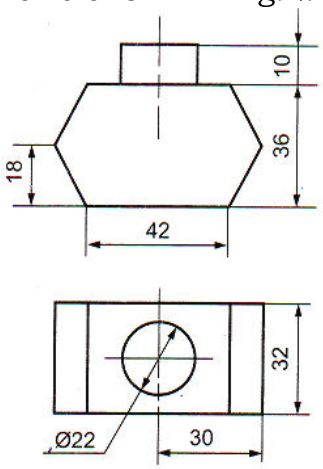

Fig. 2

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