Register Number:……..

KUMARAGURU
college of technology
character is life

GENERAL INSTRUCTIONS TO THE CANDIDATES

1. Candidates are instructed to answer the questions as per Bloom's Taxonomy knowledge level (K_1 to K_6)
2. Candidates are strictly instructed not to write anything in the question paper other than their roll number.
3. Candidates should search their pockets, desks and benches and handover to the Hall Superintendent/ Invigilator if any paper, book or note which they may find therein as soon as they enter the examination hall.
4. Candidates are not permitted to bring electronic watches with memory, laptop computers, personal systems, walkie-talkie sets, paging devices, mobile phones, cameras, recording systems or any other gadget / device /object that would be of unfair assistance to him / her.
5. Corrective measures as per KCT examination policies will be imposed for malpractice in the hall like copying from any papers, books or notes and attempting to elicit the answer from neighbours.

B.E DEGREE EXAMINATIONS: JAN 2015

(Regulation 2014)

First Semester

U14MET101: ENGINEERING GRAPHICS

(Common to CIVIL/MECH)

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (5 x 20 = 100 Marks)

Q.No. 1 is Compulsory

1. A hexagonal pyramid with side of base 30 mm and height 75 mm stands with its base on H.P and an edge of the base parallel to V.P. It is cut by a plane perpendicular to V.P. inclined at 45° to H.P and passing through the mid-point of the axis. Draw the (sectional) top view and develop the lateral surface of the truncated pyramid. [K_3]

2. a) Construct an ellipse when the distance of its focus from its directrix is equal to 40 mm and the eccentricity of 2/3. Also draw the tangent and normal to the ellipse. [K_3]

(OR)

b) A line AB of 70 mm long, has its end A at 10 mm above H.P and 15 mm in front of V.P. Its front view and top view measures 50 mm and 60 mm respectively. Draw the projections of the line and determine its inclinations with H.P. and V.P. [K_3]

3. a) A pentagonal plane ABCDE 35 mm side has its plane inclined 50° to H.P. Its diameter joining the vertex B to the midpoint F of the base DE is inclined at 25° to the xy-line. Draw its projections keeping the comer B nearer to VP. [K_3]

(OR)

b) A hexagonal prism of base 25 mm and 45 mm long is positioned with one of its base edges on H.P such that the axis is inclined at 30^o to H.P and 45° to V.P. Draw its projections. [K_3]

4. a) A right circular cone of base diameter 60mm and height 75mm is cut by a plane making an angle of 30^o with the horizontal. The plane passes through the midpoint of the axis. Draw the isometric view of the truncated solid [K_3]

(OR)

b) A square lamina of 30 mm side lies on the ground plane. One of its corners is touching the PP and edge is inclined at 60° to PP. The station point is 30 mm in front of PP, 45 mm above GP and lies in a central plane which is at a distance of 30 mm to the right of the corner touching the PP. Draw the perspective projection of the lamina. [K_3]

5. a) The Pictorial view of an object is shown in Fig 1. Draw the free hand sketch of the following views to full size scale. [K_2] (10)

a) Elevation in the direction of arrow (5)

b) Left side view and (5)

c) Plan

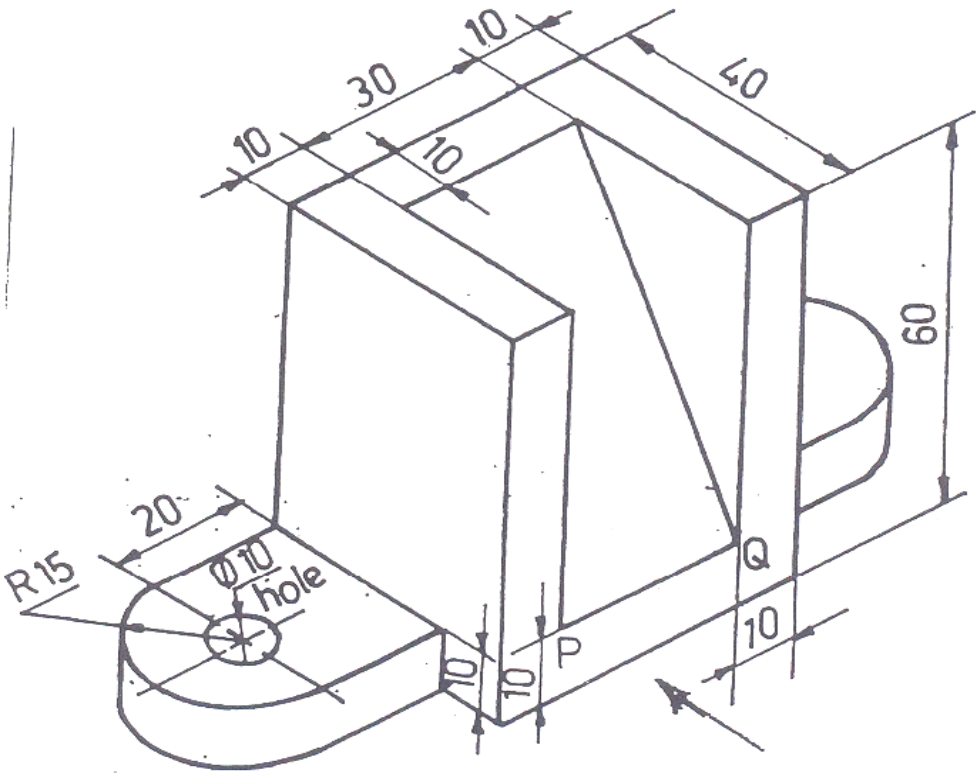

Fig: 1

(OR)

b) Draw the free hand Isometric view of the object, from the orthographic views shown in Fig: 2. [K_3]

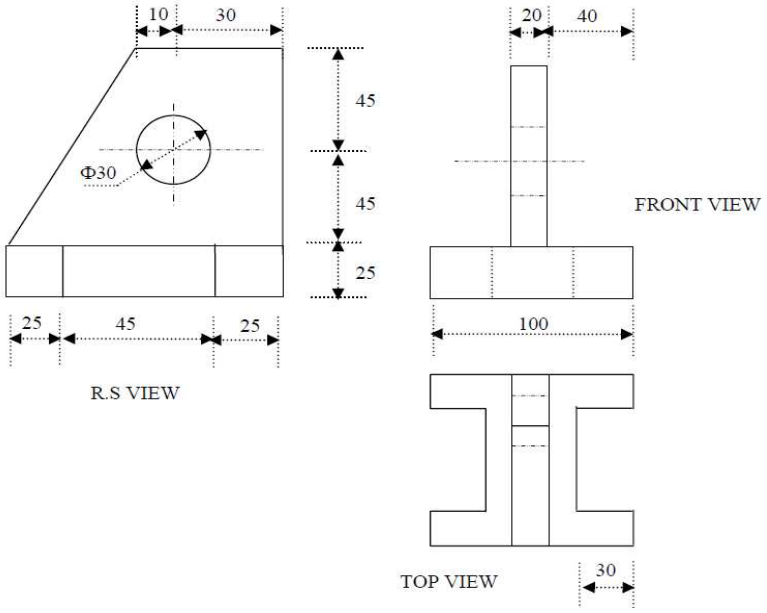

Fig: 2

****