Hall Ticket Number:

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VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD

B.E. I Year II-Semester (Old) Examinations, May-2016

Engineering Graphics-II

Time: **3** hours Max. Marks: **70**

*Note: Answer **ALL** questions in **Part-A** and any **FIVE** questions from **Part-B***

Part-A (10 × 2 = 20 Marks)

1. An important reason for using section views is to _____ the number of hidden lines in a drawing. A section view reveals _____ without the use of hidden lines.
2. In engineering industries, when the internal structure of an object is complicated, it is very difficult to visualize the object from its _____views since there will be several hidden lines. In such case, the internal details are shown by _____ views.
3. What is meant by development of surfaces?
4. What is Parallel line development?
5. Define the "Curve of Intersection".
6. What is line method?
7. Explain blue print reading.
8. What are the things to be remembered while studying the pictorial view?
9. What are the four basic steps to create an isometric drawing?
10. Non-isometric lines must be drawn by locating the two end points of the lines on isometric lines and then connecting these end points with a _____. The process used is called _____ measurement, which is a method of locating one point by projecting another point.

Part-B (5 × 10 = 50 Marks)

11. A cone of base 75mm diameter, axis 90mm long stands inverted on its apex on the HP, the base being parallel to HP. It is cut by an AIP parallel to an extreme (end) generator and passing through the center of the base. Draw the
    a) front view [2]
    b) sectional top view [4]
    c) true shape of the section. [4]

12. a) Draw the orthographic projection of the cone shown in fig.1 [3]
    b) Draw the development of the lateral surface of the part **P** of cone whose front view is given below. [7]

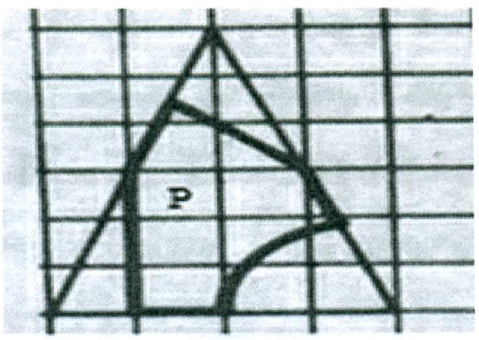

Fig.1

Each square in the above Fig.1 is of 10mm side.

Contd... 2

13. A vertical cylinder of 75mm diameter is penetrated by another cylinder of 50mm diameter, the axis of which is parallel to both the reference planes. The two axes are 9mm apart.
    a) Draw the orthographic projections and [4]
    b) the curves of intersection [6]

14. A sphere of diameter 30mm rests centrally on the top of the frustum of a cone whose top diameter is 40mm, bottom diameter is 60mm and height 70mm. The whole assembly is centrally resting on a cylindrical block of diameter 80mm and thickness 30mm.
    a) Draw the orthographic projection of the above assembly [3]
    b) Draw the isometric projection of the above assembly [7]

15. Draw the following views for the object shown in Fig.2
    a) Front view [3]
    b) Top view and [3]
    c) Side view [4]

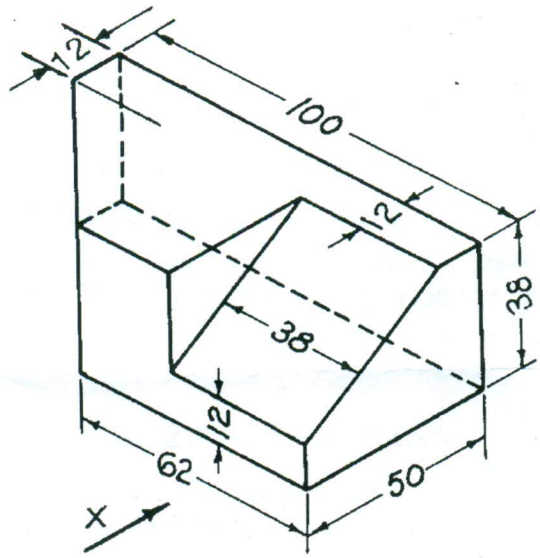

Fig.2

16. A Square pyramid, base of 50mm side and axis 75mm long, is resting on the H.P. on one of its triangular faces. The top view of the axis making an angle of 30^0 with the V.P. It is cut by a horizontal section plane, the V.T. of which intersects the axis at a point 15mm from the base.
    a) Draw the front view [5]
    b) Draw the sectional top view [5]

17. A frustum of a cone having bottom face diameter 45mm and top face diameter 30mm is resting on the H.P. A hemisphere of 30mm diameter is resting centrally on the top face of frustum. The height of the frustum is 50mm.
    a) Draw the orthographic projection of the above combination of solids. [3]
    b) Draw the isometric projection of the above combination of solids. [7]