Code No: 8

FACULTY OF ENGINEERING INFORMATICS

B.E. I-Year (Backlog) Examination, May/June 2018

Subject : Engineering Graphics

Time: 3 hours **Max Marks: 100**

Note: Answer all questions from Part-A & any five questions from Part-B

PART – A (35 Marks)

1. What is a representative fraction? 3
2. Draw a regular pentagon having 40mm long side, using general method. 4
3. Differentiate between first angle and third angle projections. 3
4. Draw and State the position of the point, the front view of which lies 50 mm below the reference line and the top view 30mm above the front view. 4
5. Differentiate between frustum of pyramid and a truncated pyramid. 3
6. A pentagon prism having a base with a 30mm side and 60mm long axis ,has one of its bases in the V.P. Draw its projection when A rectangular face is parallel to and 15mm above the H.P 4
7. Define an auxiliary inclined plane, auxiliary vertical plane and profile plane. 3
8. State a few practical applications of development of surfaces. 4
9. Differentiate between isomeric projection and isometric view. 3
10. Draw an isometric view of a circle with a 60 mm diameter using coordinate method. 4

PART – B (5×13=65 Marks)

11. a) Construct a scale of 1:5 to show decimeters and centimeters and long enough to measure up to 1m. Show a distance of 6.3 dm on it. 6
    b) The major and minor axes of an ellipse are 140mm and 90mm, respectively. Find the foci and draw an ellipse. Draw a tangent and a normal to the ellipse at a point distance at a point distant 40mm above the major axis. 7
12. A 70mm long line PQ, has an end P at 20mm above the H.P and 30mm in front of the V.P. The line is inclined at 45° to the H.P. and 30° to the V.P. draw its projections. 13
13. A hexagonal plate with a 30mm side and negligible thickness has its surface perpendicular to the H.P. and inclined at 45° to the V.P. Draw its projections when one of the sides of the plane is parallel to and 15mm in front of the V.P. 13
14. A hexagonal prism having base with a 30mm side and 75mm long axis. Has an edge of its base on the H.P. Its axis is parallel to the V.P. and inclined at 45° to the H.P. Draw its projections. 13
15. A cylinder, with a 50mm base diameter and a 70mm long axis, is resting on ground with its axis vertical. A section plane inclined at 45° to H.P. cuts the cylinder such that

the plane passes through the top of one of the generators and cuts all the remaining generators. Draw the development of its lateral surface. 13

16. Draw an isometric view of a square prism having a base with a 40mm side and a 60mm long axis, resting on the H.P. (a) on its base with axis perpendicular to the H.P., (b) on its rectangular faces with axis perpendicular to the V.P.. 13

17. The following fig shows the isometric projection of an object. Sketch the orthographic projections. 13