

B.E./B.TECH. DEGREE EXAMINATIONS: DECEMBER 2008

First Semester

U07GE101 ENGINEERING GRAPHICS

(Common to B.E. Electrical and Electronics Engineering, Electronics and Instrumentation Engineering,
Computer Science & Engineering, B. Tech. Information Technology, Textile Technology
and Biotechnology branches)

Time: Three Hours**Maximum Marks: 100****Answer ALL Questions:-****PART A (20 x 1=20 Marks)**

- When a straight line lies in a plane perpendicular to both HP and VP, the value of $\theta = \phi =$
 - 120°
 - 90°
 - 60°
 - 30°
- If a line is inclined to the VP and parallel to the HP, then which of the following statement is always correct
 - $TL = PL$
 - $TL = FL$
 - $TL > FL$
 - VT is above XY
- The projection of a line will be at the true inclination if it is having
 - True length
 - Elevation length
 - plan Length
 - isometric length
- A Tetrahedron consists of
 - Four equal square faces
 - Six equal square faces
 - Four equal triangular faces
 - Six equal triangular Faces
- The trace of a plane is a
 - square
 - circle plane
 - rectangle
 - straight line
- A Prism has no of end face(s).
 - one
 - Two
 - Four
 - Six
- If the cutting plane includes the axis of a cylinder, section obtained is a
 - Rectangle
 - Circle
 - Ellipse
 - Square
- The development of curved surface of a cone will be a
 - Rectangle
 - Circular sector
 - Triangle
 - Circle

9. A solid is said to be truncated when it is cut by a plane which is _____ to its base and the top portion removed. 21
- a) Parallel b) Perpendicular c) inclined d) Straight
10. A semicircle represents the development of _____ 21
- a) Cylinder b) Sphere
c) Cone d) Tetrahedron
11. In isometric projection, the length or width of the object is drawn at _____ to the horizontal reference line 22
- a) 120° b) 90° c) 60° d) 30°
12. Isometric lines are always _____ to isometric Axis. 22
- a) Parallel b) Perpendicular c) Equal d) Bisect
13. In perspective projection, the observer is imagined to look at the object from _____ distance. 22
- a) Infinite b) Fixed c) Longer d) Shorter
14. If a principal face of an object is parallel to the picture plane, the perspective projection is called 22
- a) Parallel perspective b) Angular perspective
c) Oblique perspective d) Two point perspective
15. The vanishing point is _____ the horizon. 23
- a) below b) front c) rear d) On
16. For freehand drawing _____ grade pencil is preferred 23
- a) H b) 2H c) HB d) B
17. In orthographic projections side views are getting from _____ planes. 23
- a) vertical plane b) Horizontal plane c) Auxiliary plane d) Oblique reference plane
18. A plane perpendicular to both the vertical and horizontal planes is called _____ 23
- a) Auxiliary plane b) Profile plane
c) oblique reference plane d) Inclined plane
19. In India which angle of projection is used? 23
- a) First angle of projection b) Third angle projection
c) Second angle projection d) Fourth angle projection
20. The angle between isometric axis is _____ 23
- a) 120° b) 90° c) 60° d) 30°

PART B (4 X 20 = 80 Marks)

21. (a) A line AB 80mm long has its end A 20mm above H.P and 25mm in front of V.P. The line is inclined at 45° to H.P and 35° to V.P. Draw its projections. (16 marks)

(OR)

21. (b) A pentagonal prism side of base 25mm and axis 50mm long, rest with one of its edges on HP such that the base containing that edge makes and angle of 30° to HP and its axis is parallel to VP. Draw its projections. (16 marks)

22. (a) A pentagonal pyramid of base side 40mm and altitude 100mm rests with its base on HP and with a side of base parallel to VP. It is cut by a section plane perpendicular to VP and inclined at 35° to HP and bisecting the axis. Draw the sectional plan of the pyramid and the true shape of section. (16 marks)

(OR)

22. (b) A cone of base diameter 50 mm and height 75 mm is resting on its base on the ground .It is cut by a plane perpendicular to the V.P and parallel to H.P and meeting the axis at a distance of 20 mm from the vertex. It is also cut by a plane inclined at 35° to the base and meeting the axis at a point 20 mm above base. Draw the development of the lateral surface of the cut cone. (16 marks)

23. (a) A hexagonal Shaped slab of base edges 30mm and height 60mm has right circular through hole of 40mm diameter across the flat circular ends. Draw the isometric projection of the slab, if the axis of the hole and the slab coincidence. (16 marks)

(OR)

23. (b) A square pyramid of side of base 50 mm and altitude 70 mm stands on the ground vertically with an edge of base parallel to and 20mm behind PP. The station point is 40 mm in front of PP and 70 mm above the ground. The central plane is located 45 mm to the left of the axis of the solid. Draw the perspective projection. (16 marks)

