Code No. 8

FACULTY OF ENGINEERING

B.E. I – Year (Backlog) Examination, December / January 2017-18

Subject: Engineering Graphics

Time: 3 Hours **Max.Marks: 100**

Note: Answer all questions from Part A and any five questions from Part B.

PART – A (35 Marks)

1 State the significance of types of lines along with neat sketch and applications. 3

2 Define Conic Section and Eccentricity. 3

3 State the difference between a diagonal scale and a vernier scale. 3

4 Draw the projections of the following points on a common XY line. Keep the distance between the consecutive projectors as 20 mm: 3
   i) Point 'E' is 25 mm above HP and 40 mm behind VP.
   ii) Point 'F' is 30 mm below the HP and 40 mm infront of VP.
   iii) Point 'G' is 15 mm above the HP and 35 mm infront of VP.

5 A straight line of 40 mm length is inclined at 30^o to H.P. One end is in HP and 20 mm in front of VP. Draw its projections. 3

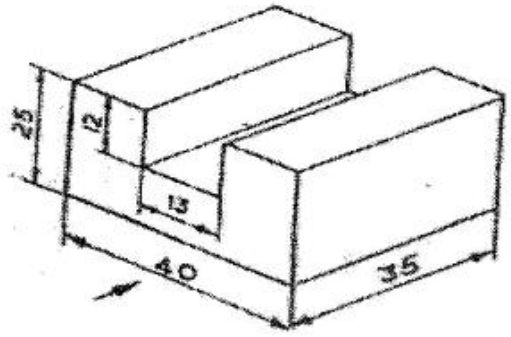
6 A right circular cone of base diameter 35 mm and height 60 mm rests on its base on HP. It is cut by a sectional plane at 20 mm from the apex. Draw the sectional view of the solid. 4

7 Detail the characteristics of isometric projections. 4

8 Divide a line of length 15 cm into 21 equal parts. 4

9 Give the detailed classification of solids. 4

10 Draw the elevation and plan for the picture shown in Figure shown below. 4



PART – B (5x13 = 65 Marks)

11 a) Construct a scale of R.F = 1/(2.5) to show decimeters and centimeters and by a vernier to read millimeters, to measure up to 4 decimeters. Show on it lengths 2.34 cm, 1.42 dm and 0.38 dm. 7

   b) Draw a parabola given the width and height of its enclosing rectangle as 105 mm and 75 mm respectively. 6

12 A semi circular plate of 80mm diameter has its straight edge in the VP and inclined at 45 to HP. The surface of the plate makes an angle of 30^o with the VP. Draw its projections. 13

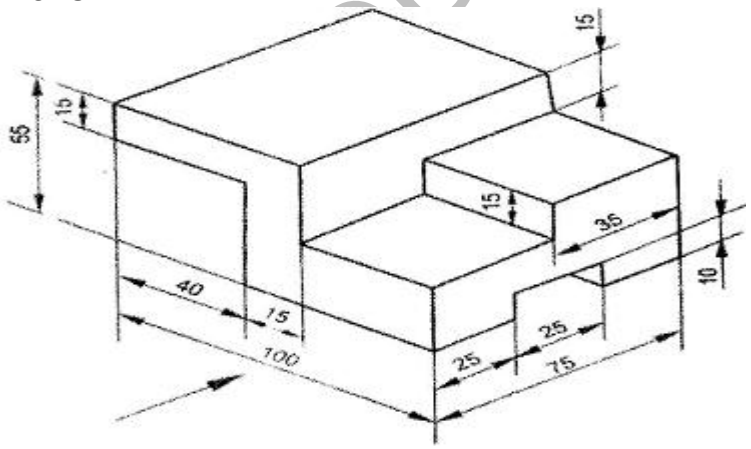
13 A line of 90mm long has one end 'M' at 50mm and end 'N', 20mm from both the planes. Draw the front and top views of the line and find its inclinations with HP and VP. Also locate a point P lying on the XY such that, PN=PM. 13

14 A hexagonal prism with base side 20mm and axis 50mm long, rests with a side of base on HP and the base is inclined at 45^o to HP. Obtain the projection of the prism, when the top view of the axis is inclined at 60^o to XY. 13

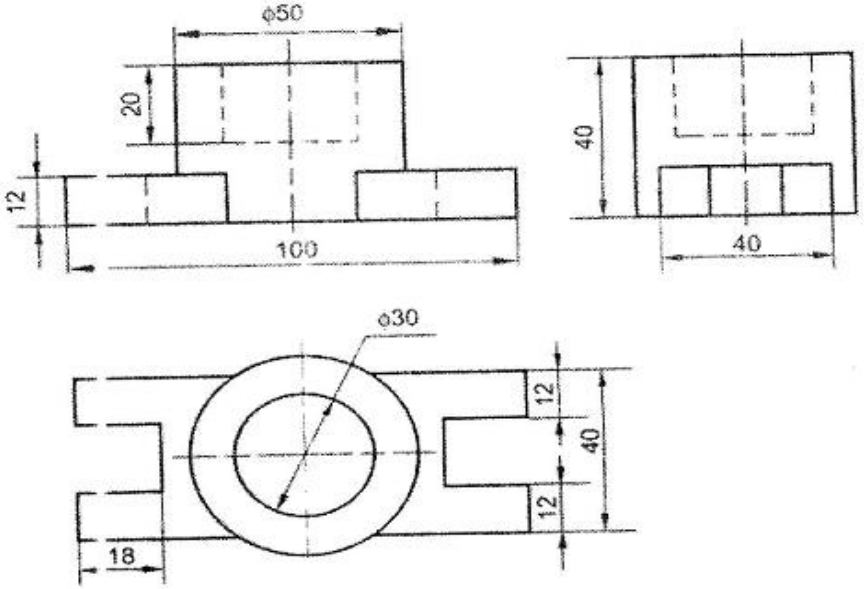
15 A square pyramid, with side of base 50mm and axis 70mm long, is resting on its base, with one edge perpendicular to VP. It is cut by an inclined section plane such that the true shape of the section is a trapezium, whose parallel sides measure 40mm and 20mm. Draw the projections of the solid and determine the true shape of the section. 13

16 A vertical cone of diameter of base 40mm and height 50mm is cut by a section plane, perpendicular to VP and inclined at 30^o to HP, so as to bisect the axis. Draw the development of the truncated portion of the cone. 13

17 a) The following figure shows the isometric projection of an object. Sketch the orthographic views. 6



b) Draw the isometric projections for the orthographic projections shown in the figure. 7



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Code No. 13

FACULTY OF ENGINEERING

BE I-Semester (Main & Backlog) Examination, December / January 2017-18

Subject: Computer Programming and Problem Solving

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

Note: Answer all questions from Part A and any five questions from Part B.

PART- A (2x10=20 Marks)

1. Explain conditional operator in C with an example.
2. What is the difference between a 'C' expression and a 'C' statement?
3. Describe Goto statements. Mention its advantages and disadvantages.
4. What are actual and formal parameters in C language?
5. Can one dimensional array be passed as function arguments in C language?
6. Explain #define directive and its usage.
7. What is memory leak in C?
8. What is difference between determining the length of a string and character Array using sizeof operator and strlen ()?
9. Define Bitfield and its usage with an example.
10. What is notion of stream in C programming?

Part – B (5x10=50 Marks)

11. a) Explain in detail about cast operator in C, with examples. [5]
    b) Explain different phases of compilation of a C program with example. [5]
12. a) Elaborate on different conditional statements in C with example. [6]
    b) Discuss on intufunction communication with examples. [4]
13. a) Explain preprocessor directives and their uses in C program. [5]
    b) Can Multidimensional arrays be passed as function arguments in C, explain with an example. [5]
14. a) Discuss on Memory allocation functions in C with examples. [6]
    b) Elaborate on String functions. [4]
15. a) Explain nested structure in C with example. [6]
    b) How unions differ from structures in C? [4]
16. a) Write short notes on: [10]
    (a) Void pointer
    (b) Type definition
17. Discuss on Standard library input/output functions. [10]

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