B.E. AICTE II SEM, EXTERNAL EXAMINATION AUGUST- 2024

DEPARTMENT OF HUMANITY AND SCIENCE

SUBJECT CODE : ES353CE   **SUBJECT: ENGINEERING GRAPHICS**

TIME: 1:00 HOUR   **MAXIMUM MARKS : 50**   **Date : _05/08/2024FN SET-A**

PART-A   **ANSWER ALL QUESTIONS**   **MARKS: 5 X 2 = 10**

Q.No.	Questions	BTL	CO(S)	PO (S)	PSO
1.	Define Projection?	1	1	1	-
2.	What is Orthographic Projection?	2	2	1	-
3.	What are the types of conic sections, and how are they formed?	2	2	1	-

PART-B   **ANSWER ANY TWO QUESTIONS**   **MARKS: 2 X 20= 40**

Q.No.	Questions	BTL	CO(S)	PO (S)	PSO
1.	Construct a scale of 1:40 to read metres and decimetres and long enough to measure up to 6 metres. Mark a distance of 4.7 m on it.	5	1	2	1
2.	Draw the projections of the following points on a common reference line keeping the distance between their projectors 30 mm apart. (a) Point A is 20 mm below the H.P. and 50 mm in front of the V.P. (b) Point B is in the H.P. and 40 mm behind the V.P. Projections of Points 8.9 (c) Point C is 30 mm in front of the V.P. and in the H.P. (d) Point D is 50 mm above the H.P. and 30 mm behind the V.P. (e) Point E is 20 mm below the H.P. and 50 mm behind the V.P. (f) Point F is in the V.P. and 50 mm below the H.P	5	1	2	1
3.	a pentagonal lamina of base side 30mm resting with one of its base on the h.p and its inclined 30^0 to the h.p and 45^0 to the v.p draw its projection and show the top and front view.	3	1	2	1

PART-A   **ANSWER ALL QUESTIONS**   **MARKS: 5 X 2 = 10**

Q.No.	Questions	BTL	CO(S)	PO (S)	PSO
1.	How is a parabola generated in conic sections?	1	1	1	-
2.	Differentiate between true length and apparent length of a line in projection?	2	2	1	-
3.	Explain the concept of auxiliary planes in plane projections?	2	2	1	-
4.	What is an involute curve and where is it commonly used?	2	2	1	-
5.	What is the purpose of using scales in engineering drawings?	2	2	1	-

PART-B   **ANSWER ANY TWO QUESTIONS**   **MARKS: 2 X 20= 40**

Q.No.	Questions	BTL	CO(S)	PO (S)	PSO
1.	If 1 cm long line on a map represents a real length of 4 m. Calculate the R.F. and draw a diagonal scale long enough to measure up to 50 metres. Show a distance of 44.5 m on it.	5	1	2	1
2.	A 80 mm long line PQ has end P 20 mm above H.P. and 40 mm in front of the V.P. The line is inclined at 30° to the H.P. and is parallel to the V.P. Draw the projections of the line and determine its traces.	5	1	2	1
3.	A Hexagonal lamina of base side 25mm resting on the H.P with one its corner .and its inclined 30º to the H.P and 45º to the v.p draw the projection .and it show the top and front view.	3	1	2	1

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TIME: 1:00 HOUR   MAXIMUM MARKS : 50   Date : _05/08/2024FN SET-C

PART-A   ANSWER ALL QUESTIONS   MARKS: 5 X 2 = 10

Q.No.	Questions	BTL	CO(S)	PO (S)	PSO
1.	What is the purpose of sectional views in engineering drawings?	1	1	1	-
2.	Define scale in engineering drawing?	2	2	1	-
3.	What is an involute curve and where is it commonly used?	2	2	1	-
4.	How do you convert a scale ratio to a scale factor?	2	2	1	-
5.	Explain the role of sectioning in plane projections.?	2	2	1	-

PART-B   ANSWER ANY TWO QUESTIONS   MARKS: 2 X 20= 40

Q.No.	Questions	BTL	CO(S)	PO (S)	PSO
1.	A 60 mm long line AB is parallel to and 20 mm in front of the V.P. The ends A and B of the line are 10 mm and 50 mm above the H.P., respectively. Draw the projections of the line and determine its inclination with the H.P. Also, locate the traces of the line.	5	1	2	1
2.	A hexagonal plane ABCDEF of side 30 mm has its corner A in the H.P. The surface of the plane is inclined at 45° to the H.P. and the diagonal containing corner A is inclined at 30° to the V.P. Draw its projections	5	1	2	1
3.	Construct a scale of 1:40 to read metres, decimetres and centimetres and long enough to measure up to 6 m. Mark a distance of 4.76 m on it.	3	1	2	1