COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

B.TECH. DEGREE I & II SEMESTER SUPPLEMENTARY EXAMINATION IN MARINE ENGINEERING JUNE 2020

MRE 1106 ENGINEERING GRAPHICS

(*2013 Scheme*)

Time: 3hrs [30 Minutes for Answering and Scanning/Uploading the page of the Answer Sheet per module]

Max. Marks: 70 (14 per module)

INSTRUCTIONS

1. You have to be available in Google Meet on demand by the faculty.
2. You have to share your '**live location**' to the faculty before uploading the answer sheet.
3. You have to answer only one question.
4. Answer may not exceed one page of an A4 size paper in a standard handwriting, as far as possible.
5. If at all an answer goes beyond one page, (due to your handwriting) another page can also be used. In such a situation, the page number should be given as 1/2, 2/2.
6. You have to put dated signature along with Register Number, Subject Code, Module/Group Number (as given in the Question Paper) in each page.
7. You have to put the Question Number correctly.
8. After answering the question, you have to scan and upload the answer page.

MODULE - I

(Answer ***ANY ONE*** question)

I(1).	The length of 10 m is represented by 3 cm in a scale. Construct a backward vernier scale to read up to 50 m and mark a distance of 35.3 m on the scale.	(14)
	OR	
I(2).	Construct an ellipse with major axis 90 mm and minor axis 55 mm. Draw a tangent and normal at any point on the curve.	(14)

MODULE - II

(Answer ***ANY ONE*** question)

II(1). Draw the projections of a line CD 50 mm long, parallel to HP and inclined to VP. The end C is 10 mm in front of VP and D is 30 mm in front of VP. The line is 15 mm above HP. Find the inclination of line with VP. (14)

OR

II(2). A regular pentagonal lamina of 20 mm side has its plane vertical and inclined at 30^o to the VP. Draw its projections when one of its sides is perpendicular to the HP. (14)

MODULE - III

(Answer ***ANY ONE*** question)

III(1). Draw the projection of a hexagonal prism of base side 20 mm and axis 50 mm when it rests on the ground on one of the edges of the base and axis inclined at 30^o to the ground and parallel to VP.

OR

III(2). A cube of 40 mm side rests with a face on HP, such that one of its vertical faces inclined at 30^o to VP. A section plane, parallel to VP, cuts the cube at a distance 15 mm from the vertical edge nearer to the observer. Draw the top and sectional front views.

MODULE - IV

(Answer ***ANY ONE*** question)

IV(1). A hexagonal prism edge of base 20 mm and axis 50 mm long, rests with its base on HP such that one of its rectangular face parallel to VP. It is cut by plane perpendicular to VP, inclined at 45^o to HP and passing through the right corner of the top face of the prism. Draw the development of the bottom portion of the prism. (14)

OR

IV(2). A square prism 50 mm side height 100 mm stands vertically with its base on HP with its two rectangular faces equally inclined to VP. It has a horizontal square hole of 30 mm side with its axis parallel to both HP and VP. The flat faces of this hole are equally inclined to HP and VP. A square prism of size 30 mm and 100 mm long penetrates through the hole, bisecting the axes each other. Show the projections with lines of intersection.

MODULE - V

(Answer ***ANY ONE*** question)

V(1). Draw the isometric view of a frustum of a cone base diameter 50 mm, top face diameter 30 mm and length of axis 60 mm, resting on horizontal plane. (14)

OR

V(2). A circular lamina of 40 mm diameter lies on the ground plane and touches the picture plane. The centre plane passes through the centre of the circle. Station point is 70 mm in front of picture plane and 60 mm above ground plane. Draw the perspective view. (14)

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