COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

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

19-208-0203 ENGINEERING GRAPHICS

(*2019 Scheme*)

Time: 2hrs 30 Minutes [30 Minutes for Answering and Scanning/Uploading the page of the Answer Sheet per module]

Max. Marks: 70 (10 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 per module.
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). On a building plan a line 10 cm long represent a distance of 5 m. Construct a diagonal scale for the plan to read up to 6m. Show on the scale the length 5.57m (10)

OR

I(2). Draw a epicycloid of rolling circle of diameter 40 mm which rolls outside another circle of 150 mm diameter for one revolution. (10)

MODULE - II

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

II(1). A line AB 90 mm long, is inclined at 45^o to the HP and its top view makes an angle of 60^o with the VP. The end A is in HP and 12 mm in front of VP. Draw its front view and find its true inclination with the VP. (10)

OR

II(2). Draw the projection of a circle of 50 mm diameter, having its plane vertical and inclined at 30^o to VP. Its center is 30 mm above HP and 20 mm in front of VP. (10)

MODULE - III

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

III(1). Draw the projection of a square pyramid of base side 30 mm and height 60 mm when it lies on the ground on one of the triangular faces and the axis parallel to VP. (10)

OR

III(2). A square prism of base side 30mm and height 75 mm rests on the HP on its base with two of its rectangular faces equally inclined to VP. It is cut by a plane perpendicular to VP and inclined at 60^o HP meeting the axis at 15 mm from top. Draw its elevation, sectional plan and true shape of section. (10)

MODULE - IV

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

IV(1). Draw the development of the lateral surface of a square pyramid, side of base 25 mm and height 50 mm resting with its base on HP and an edge of base parallel to VP. (10)

OR

IV(2). A square prism base 45 mm side and 100 mm long is resting on its square base on HP with two adjacent vertical faces equally inclined to VP. It is penetrated by a triangular prism 45 mm side and 90 mm long in such a way that the axes intersect each other at right angles at the mid-point. If the two rectangular faces of the triangular prism are equally inclined to horizontal plane, draw the projections of solids with line of intersection. (10)

MODULE - V

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

V(1). Draw the isometric view of a hollow rectangular prism of outer base edges 50mm x 40mm and height 60mm. It rests with its base on HP and one if its rectangular faces parallel to VP. The thickness of wall of the prism is 10mm. (10)

OR

V(2). A rectangular lamina 30mm x 60 mm is lying on the ground with the 30 mm side parallel and 20 mm behind PP. The station point in 60 mm to the right of the center of the lamina, 50 mm above ground plane and 25 mm in front of PP. Draw the perspective view of lamina. (10)

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