



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2021

Programme Name: B. Tech Civil Engineering
Course Name : Computer-Aided Civil Engineering Design
Course Code : CIVL 2020
Nos. of page(s) : 02

Semester : III
Time : 03 hrs
Max. Marks : 100

Instructions: Please use white A4 plain sheets for this exam and draw neat diagrams, wherever applicable.

SECTION A (5Q x 4M = 20 Marks)

S. No.		Marks	CO
Q 1	Draw a typical layout of a drawing sheet along with detailing of title block.	4	CO1
Q 2	Compare two modern applications each of BIM and REVIT.	4	CO1
Q 3	Mention the practical benefits of layer concept /command in AutoCAD.	4	CO1
Q 4	List 5 types of building along with one exclusive component in each of them.	4	CO3
Q 5	Explain importance of bar bending in building construction and material used for this.	4	CO4

SECTION B (4Q x 10M = 40 Marks)

Q 6	Compare Orthographic Projection and Isometric Projection using one example.	10	CO1
Q 7	Explain the conditions under which Plastering and pointing can be used effectively.	10	CO2
Q 8	Explain the difference between an auditorium building and a Godowns building. Draw the sketch between anyone of the same with proper nomenclature of major components. <u>OR</u> Briefly explain following with neat sketches: I. Combined Footings II. Queen Closer	10	CO2
Q 9	Prepare a neat sketch of a single storey residential building showing plan, section and elevation along with nomenclature of important components	10	CO2

SECTION-C (2Q x 20M = 40 Marks)

Q 10	A. Compare the stage-wise activities during construction of a residential building from start of excavation to the concreting of roof slabs.	20	CO3
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	<p>B. Map the activities in above question with the related type of drawings required at each of these stages by the site staff.</p>		
Q 11	<p>Describe following by short notes on each of the following:</p> <p>A. Bar bending Schedule</p> <p>B. Use of Steel as reinforcing material</p> <p>C. Difference between GAD and GFC with examples</p> <p style="text-align: center;"><u>OR</u></p> <p>Draw the Schematic sketch of various RCC members from PCC footings to floor slab showing all the connections of beams /columns/walls/flooring. Also, mention the general structural detailing requirements.</p>	20	CO4