UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2022

Course: Computer aided civil engineering design　　　　**Semester: III**
Program: B Tech Civil Engineering　　　　　　　　　　**Time　　: 03 hrs.**
Course Code: CIVL 2020　　　　　　　　　　　　　　**Max. Marks: 100**

Instructions:

S. No.	SECTION A (5Qx4M=20Marks)	Marks	CO
Q 1	Draw four hatching patterns used in AutoCAD.	4	CO1
Q 2	Differentiate between top, mid, and bottom rail.	4	CO2
Q 3	Define prospect and aspect in building planning.	4	CO3
Q 4	Describe the use of excavation drawing.	4	CO4
Q 5	Differentiate between first and third angle projection.	4	CO1
	SECTION B (4Qx10M= 40 Marks)		
Q 6	Explain multi view orthographic projection.	10	CO1
Q 7	Draw the plan elevation of one and half and two brick thick Flemish bond.	10	CO2
Q 8	Enlist the parts of the window and describe them.	10	CO3
Q 9	Explain the rules of placing column layout for residential building.	10	CO4
	SECTION-C (2Qx20M=40 Marks)		
Q 10	a. Differentiate between pointing and plastering and describe their advantages in masonry. b. Draw a plan for 2 BHK residential layout of plinth area 1000 sq. ft.	10+10	CO2, CO3
Q 11	Explain the key components of a structural drawing for beam and draw neat sketch for a beam of 30 cm x 30cm. Indicate reinforcement and spacing. (OR) Explain the key components of structural drawing for a straight staircase for a floor height of 4 mt. Draw the sketch and label the same.	20	CO4

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UNIVERSITY OF TOMORROW

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Instructions:

S. No.	SECTION A (5Qx4M=20Marks)	Marks	CO
Q 1	Define three drawing tools used in AutoCAD	4	CO1
Q 2	Describe the use of Jamb in window	4	CO2
Q 3	Define circulation and roominess in building planning.	4	CO3
Q 4	Define single line drawing.	4	CO4
Q 5	Describe the role of orthographic projection in arriving at an isometric projection.	4	CO1
	SECTION B (4Qx10M= 40 Marks)		
Q 6	Explain the various steps involved in drawing an isometric projection of a given object in AutoCAD.	10	CO1
Q 7	Draw the plan elevation of one and half and two brick thick English bond.	10	CO2
Q 8	Enlist the parts of the glazed door and describe them.	10	CO3
Q 9	Explain the advantages and disadvantages of different types based on material of lintels.	10	CO4
	SECTION-C (2Qx20M=40 Marks)		
Q 10	a. Ashlar masonry is costlier than rubble masonry – defend the statement with valid reasons. b. Draw a plan for 3 BHK residential layout of plinth area 900 sq. ft.	10+10	CO2, CO3
Q 11	Explain the key components of a structural drawing for one way slab and draw neat sketch for a slab of 20 ft x 25ft. Indicate reinforcement and spacing of bars. (OR) Explain the key components of structural drawing for a dog legged staircase for a floor height of 4 mt. Draw the sketch and label the same.	20	CO4