

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2018

Course: Building Material and Construction (CIVL 2001)

Semester: IIIrd

Programme: B.Tech (Civil Engineering)

Time: 03 hrs.

Max. Marks: 100

Instructions: All questions are compulsory to attempt

PAPER I

SECTION A

S. No.		Marks	CO
Q 1	Explain in brief the water absorption and porosity test for bricks.	04	CO1
Q 2	What does 8DS10 and 9DT11 stands for according to IS provision.	04	CO2
Q 3.	Which type of masonry unit will you prefer in hot temperature regions for construction and why.	04	CO3
Q 4.	Discuss the different layers of the floor base for a solid ground floor.	04	CO4
Q 5	What do you understand by pointing work and analyze the need of pointing work in masonry walls.	04	CO4

SECTION B

Q 1	Explain in detail the essential differences between the plate and shell structures along with two suitable example of each..	10	CO2
Q 2	Suppose a stair case has to be provided at the entrance of a public building. Which type of stair will serve best in this case and why. Also explain about the used stair along with its plan and elevational view.	10	CO2
Q 3	Which type of flooring will you prefer in godowns and why. Also explain the different laying methods of the preferred flooring. OR Explain in detail the laying procedure of Flag stone flooring along with its diagrammatic view.	10	CO4 CO4
Q 4	Suppose a new wood work has to be painted in a building, discuss the sequential steps to be adopted for the painting process on the wood work.	10	CO4

SECTION-C

Q 1.	Suppose a basement for a mall has to be constructed for the parking purpose in two different locations. In one location, the water table is very nearer to ground surface whereas in the other area, water table is not very nearer to ground surface. Explain the best suited method to be adopted for the basement dampness prevention in each of these locations.	20	CO3
Q 2.	a). Analyze the thumb rules generally adopted for the provision of window in a building.	10	CO2

	b). Explain the classification of Flush doors along with their critical points.	10	CO2
	OR		
	a). Which type of plaster is generally used for the preparation of non-absorbent and also well plastic surface. Explain the reason for the same and the composition of the plaster used.	10	CO4
	b). Explain the different steps followed in the distempering process over the surface.	10	CO4

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PAPER II

SECTION A

S. No.		Marks	CO
Q 1	Explain the relation between water absorption and compressive strength of brick masonry along with graph.	04	CO1
Q 2	What does 7WS9 and 10WT12 stands for according to IS provision.	04	CO2
Q 3.	In which circumstances, aerated concrete blocks can be chosen as a preferred masonry unit for construction and why.	04	CO3
Q 4.	Enlist the different constituents of a paint along with their key points.	04	CO4
Q 5	What do you understand by Flush pointing and Recessed pointing work.	04	CO4

SECTION B

Q 1	For short span in industrial workshop buildings, which type of trusses are generally used and why. Also show the diagrammatic view of the same	10	CO2
Q 2	Which type of staircase will you prefer where there is restriction of width for the construction of stair and why. Also describe about the salient features of the stair used	10	CO2
Q 3	Which type of flooring will you prefer in residential buildings and why. Also explain the laying procedure of different layers of the preferred flooring. OR Explain in detail the laying procedure of Brick flooring along with its diagrammatic view.	10	CO4 CO4
Q 4	Explain in detail the different methods generally adopted for damp proofing in buildings.	10	CO4

SECTION-C

Q 1.	Suppose a house has to be constructed in two locations: i). where ground moisture is at greater depth and ii) where ground moisture/water table is near the ground surface. Describe briefly the method to be adopted in each of these two conditions to prevent dampness in floors of the house constructed.	20	CO3
Q 2.	a), In order to achieve proper ventilation and light in sloping roof of hilly areas, which window is most appropriate to use. Also explain about the same with critical points. b). Explain the suitability of use of Revolving door and Louvered door in buildings. Also discuss the essential features of each of them.	10 10	CO2 CO2

OR

a). Analyze the different types of defect generally arise in plastering work..

10

CO4

b). Explain the different steps followed during the varnishing process over the wooden surface.

10

CO4