

Roll No: -----



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2017

Program: B.Tech (Civil Engineering)
Subject (Course): Building Material & Construction
Course Code: CEEG 216
No. of page/s: 2

Semester – IIIrd
Max. Marks: 100
Duration: 3 Hrs

Section A

All questions are compulsory to attempt.

- Q1. Enumerate the objectives of Building Finishes in a building and also enlist the different types of building finishes works. [5] [CO4]
- Q2. Explain the load bearing/load resisting phenomenon in plate and shell structures. [5] [CO1]
- Q3. Enlist the factors on which selection of type of plaster for construction work depends. [5] [CO3]
- Q4. In which circumstances, trussed roofs are preferably chosen for roofing in buildings. [5] [CO3]

Section B

All questions are compulsory to attempt.

- Q1. Explain the classification of turning stairs used in buildings along with the plan showing their exact configuration. [10] [CO3]
- Q2. Which type of flooring is generally used in ware-houses, godowns and describe about the different methods adopted for laying of the same. [10] [CO4]
- Q3. Explain the various defects in plastering work along with their appropriate causes. [10] [CO4]

Q4. What do you understand by Pigment Volume Concentration Number in paint and its relevance. [10] [CO1]

Section C

All questions are compulsory to attempt.

Q1. Suppose a commercial building basement has to be constructed in following three different soil locations:

1. Undrained underground soil
2. Severe underground soil water pressure
3. Water table is at greater depth

Explain the best suited method to be adopted for the dampness prevention in each of these three locations. [20]

OR

Suppose a building has to be constructed in a location with damp soil conditions. The dampness prevention measures have to be provided in foundation, floors and walls of the building. Explain the best suited method to be adopted for the dampness prevention in each of the above mentioned components of the building. [20] [CO3]

Q2. a). Which type of door is nowadays most commonly used in residential and commercial buildings because of their pleasing appearance. Explain the constructional features of the same. [10]

b). Explain the advantages of using Bay window in a building and also describe about its constructional features. [10] [CO2]



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Section A

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- Q1. What do you understand by bearing of a lintel and also enumerate the guidelines for determining bearing for lintel. [5] [CO2]
- Q2. Enumerate the various member sections used in steel roof trusses in buildings along with their suitability to use. [5] [CO1]
- Q3. Enlist the different methods to be adopted for building damp-proofing. [5] [CO3]
- Q4. Which do you understand by pointing work and what is the need of pointing work in masonry walls. [5] [CO4]

Section B

All questions are compulsory to attempt.

- Q1. Explain the different types of mortars commonly used for plastering work along with their suitability to use and composition. [10] [CO3]
- Q2. Explain briefly the different ingredients of varnish and process of varnishing on woodwork. [10] [CO1]
- Q3. Discuss the laying procedure of Flag stone flooring and Terrazzo flooring along with their complete description. [10] [CO4]

Q4. Explain the classification of stairs used in buildings along with the plan showing their exact configuration. [10] [CO3]

Section C

All questions are compulsory to attempt.

Q1. Suppose a residential building has to be constructed in a location where water table is nearer to the ground surface. Explain the best suited method to be adopted for the dampness prevention in each of these components of the building:

1. Foundation

2. Floors

3. Internal walls [20]

OR

Suppose a basement for a mall has to be constructed for the parking purpose in two different locations. In one location, the ground soil is not properly drained whereas in the other area, water table is nearer to ground surface. Explain the best suited method to be adopted for the basement dampness prevention in each of these locations. [20] [CO3]

Q2. a). Mention the general rules/guidelines for obtaining good bonds in brick work . [10]

b). Explain the suitability conditions for using Louvered window in a building and also describe about its constructional features. [10] [CO2]