

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2123)

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B. Tech 3rd Semester Examination
Building Construction and Drawing (O.S.)
CE-3002

Time : 3 Hours

Max. Marks : 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, select one question from each section A, B, C and D. Section E (question 9) is compulsory.

SECTION - A

1. (a). Draw plans of two alternate courses and a front view of 1½ brick thick wall in English Bond. (12)
- (b) What precautions would you suggest to a mason during the construction of a cavity wall? (8)
2. (a) Draw a section of the cavity wall to show its construction details. (12)
- (b) Compare between English and Flemish bonds in the brick masonry. (8)

SECTION - B

3. (a) Explain DPC treatment of basement using RCC raft, draw sectional views? (10)
- (b) Explain a DPC treatment for flat roof. (10)
4. Explain in detail geophysical methods used for sub-surface soil investigations. (20)

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SECTION - C

5. Draw an elevation and two sectional (along height and width) views of a battened, ledged, and braced door. **(20)**
6. (a) Sketch and level queen post truss with construction detail. **(12)**
(b) What are different fixtures and fasteners used in doors? **(8)**

SECTION - D

7. Draw plan and section of Dog legged stair case. **(20)**
8. Draw front and sectional views of Grillage Foundation. **(20)**

SECTION - E

9. Attempt all parts:
 - (i) List down various defects in the bricks masonry.
 - (ii) Write short note on Cement Concrete flooring.
 - (iii) Among granite, sand stone, and lime stone masonry which has largest load carrying capacity.
 - (iv) Explain Dormer window.
 - (v) In which circumstances pile foundation is used?
 - (vi) What is the purpose of soil exploration?
 - (vii) What are the conditions in which pier foundation is used?
 - (viii) Explain acoustics requirements of an auditorium.
 - (ix) What are the factors affecting in deciding the location of a door?
 - (x) Explain the characteristics of Ashlar stone masonry. **(2×10=20)**