B020414(020)

B. Tech. (Fourth Semester) Examination, April-May 2022

(AICTE Scheme)

(Civil Engineering Branch)

BUILDING CONSTRUCTION

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

*Note : Part (a) is of each question is compulsory and carries 4 marks. Attempt any **two** parts from (b), (c) and (d) and carries 8 marks.*

Unit-I

1. (a) Define foundation. Why foundation is required in structure. Justify it.   4

(b) What is strap footing? Explain with the help of neat sketch. 8

(c) Write short notes on expansive and non-expansive soil. 8

(d) What are the causes of failure of foundation and its remedial measures. 8

Unit-II

2. (a) Define the term masonry. Name various types of masonry. 4

(b) Write a short note on Brick masonry. Give reasons why brick masonry is preferred over stone masonry. 8

(c) Give a brief discription on slenderness ratio and basic compressive stress. 8

(d) Write short notes on location of doors and windows. 8

Unit-III

3. (a) What is the purpose of providing floors? What are its various components? 4

(b) What are the factors that affect the choice of the flooring materials? Explain in details. 8

(c) Discuss about pitched, flat and curved roof. Name the technical terms used in sloping roof. 8

(d) What do you understand by the term formwork? What are the requirements of a good form work. 8

Unit-IV

4. (a) Name the causes and effect of dampneoss. 4

(b) Discuss about the materials used in Damp proofing. Also explain the important function of the materials. 8

(c) Explain the various defects occurs in plastering work. 8

(d) What are the construction joints? Give a detail note on expansion and contraction joints. 8

Unit-V

5. (a) Define Acoustics. 4

(b) Explain in brief general acoustics defects and suggests the remedial measures. 8

(c) Discuss about the materials used for sound proof construction. 8

(d) Give a detailed note on fire safety requirements for buildings. 8