

CBCS SCHEME

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15CV36

Third Semester B.E. Degree Examination, Dec.2019/Jan.2020

Building Materials and Construction

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the various factors that cause deterioration of stone work and the preservation of stones. (06 Marks)
- b. Explain dressing of stones and what are the requirements of good building stones? (06 Marks)
- c. Explain any two Laboratory tests on bricks. (04 Marks)

OR

- 2 a. Explain briefly stabilized Mud Blocks. (06 Marks)
- b. Briefly explain Natural and Manufactured Fine Aggregate. (04 Marks)
- c. Write the requirements of good Mortar. (06 Marks)

Module-2

- 3 a. With neat sketches, explain the following types of foundation.
 - i) Raft foundation (06 Marks)
 - ii) Pile foundation. (04 Marks)
- b. What are the Preliminary investigations of the soil and foundation? (04 Marks)
- c. Write short notes on the following with sketches
 - i) Combined footing (06 Marks)
 - ii) Spread and strap footing
 - iii) Safe Bearing capacity of soil. (06 Marks)

OR

- 4 a. With neat sketch, Elaborate the features of English Bond and Flemish Bond. (06 Marks)
- b. Draw neat sketches of the following and write features
 - i) Ashlar Masonry (06 Marks)
 - ii) Rubble Masonry. (04 Marks)
- c. Write the advantages of cavity walls over load bearing walls with sketch. (04 Marks)

Module-3

- 5 a. With neat sketch, explain various components of a segmental Arch. (06 Marks)
- b. With neat sketches classify the Lintels. (06 Marks)
- c. Write short note on stability of Arch. (04 Marks)

OR

- 6 a. With the help of neat sketch, explain various components of king post truss. (06 Marks)
- b. Write the requirement of good Roof. (04 Marks)
- c. Explain types of pitched roofs with sketches. (06 Marks)

Module-4

- 7 a. What are the requirements of good stairs. (04 Marks)
b. Explain shoring, under pinning and scaffolding. (06 Marks)
c. With sketches explain various types of stairs. (06 Marks)

OR

- 8 a. List the factors affecting the location of doors and windows. (04 Marks)
b. Explain types of doors with sketches. (06 Marks)
c. Write short notes on :
i) Bay windows
ii) French windows
iii) Ventilators
iv) Glazed window (06 Marks)

Module-5

- 9 a. What are the main objectives of plastering? (06 Marks)
b. List the requirements of a good plaster? What are the defects arise in plastering? (06 Marks)
c. What is pointing? Mention types of pointing. (04 Marks)

OR

- 10 a. Explain Damp proofing? What are the causes of dampness? Explain its necessity in building. (06 Marks)
b. Mention and explain different types of paints. (06 Marks)
c. Explain the procedure of painting iron and steel surfaces. (04 Marks)

24 JAN 2020