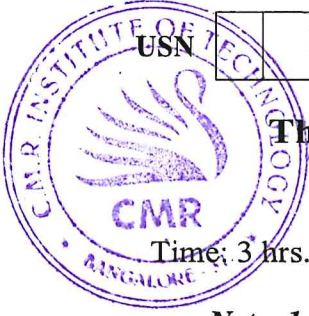


CBGS SCHEME

15CV36



Third Semester B.E. Degree Examination, July/August 2022 Building Materials and Construction

Time: 3 hrs.

Max. Marks: 80

- Note:** 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Write neat labelled sketches wherever necessary.

Module-1

- 1 a. List and explain the various requirements of a good brick. (08 Marks)
b. Write a note on following with respect to fine aggregate:
(i) Sieve analysis
(ii) Bulking
(iii) Moisture content
(iv) Deleterious material (08 Marks)

OR

- 2 a. Explain in detail, the various requirements of a good building stone. (08 Marks)
b. Write a explanatory note on elongation and Flakiness index of coarse aggregate (08 Marks)

Module-2

- 3 a. Define shallow and deep foundations? Explain with neat sketches. (08 Marks)
b. Explain with sketches, various types of joints in stone masonry. (08 Marks)

OR

- 4 a. Mention the situations in which pile foundation are adopted. (08 Marks)
b. Explain the following:
(i) Reinforced brick work.
(ii) Partition walls
(iii) Cavity walls.
(iv) SBC and UBC. (08 Marks)

Module-3

- 5 a. Draw a neat sketch of an arch and label various technical terms and explain. (08 Marks)
b. Sketch a king post roof truss with timber, provided with tile roofing. Name various components of the truss on the sketch. Indicate which members are subjected to tension and compression. (08 Marks)

OR

- 6 a. Sketch an RCC lintel for window in brick masonry. Show arrangements of steel bars in it. (06 Marks)
b. Explain the functions of Chejja, Canopy and Balcony. (06 Marks)
c. Explain briefly with sketches:
(i) Pitched roofs.
(ii) Flat roofs. (04 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-4

- 7 a. Write notes on the following:
- (i) Revolving door
 - (ii) Louvered window.
 - (iii) Clear storey window. (06 Marks)
- b. Explain the following terms with the help of sketch of a stair :
- (i) Landing
 - (ii) Going
 - (iii) Newel post.
 - (iv) Nosing.
 - (v) Stringer
 - (vi) Handrail (10 Marks)

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OR

- 8 a. Write a neat labeled sketch of half paneled and half glazed door. (08 Marks)
- b. Stair hall of a public building is 6 m long and 5.1 m wide in plan. Vertical distance from flooring of ground floor to top level of flooring of first floor is 4.5 m. Design a staircase with three flights. Sketch the staircase in plan and show details. (08 Marks)

Module-5

- 9 a. Describe the procedure for application of paint on wooden surface and on newly cement plastered surface. (08 Marks)
- b. Discuss the cause and effect of dampness in a building. (08 Marks)

OR

- 10 a. Discuss and explain the defects in plastering? (06 Marks)
- b. Describe the types of paint available in market and their specific usage? (06 Marks)
- c. Mention the methods of Damp proofing. (04 Marks)
