

Scheme – G

## Sample Question Paper

Course Name : Civil Engineering Group

Course Code : CE/CR/CS/CV

Semester : Third

Subject Title : Building Construction

Marks : 100

# 17308

Time: 3 hrs.

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### Instructions:

1. All questions are compulsory
2. Illustrate your answers with neat sketches wherever necessary
3. Figures to the right indicate full marks
4. Assume suitable data if necessary
5. Preferably, write the answers in sequential order

### Q1. A) Attempt any SIX of the following:

(6 x 2 = 12)

- a) Define foundation
- b) Define masonry.
- c) State the function of lintel.
- d) State any two technical term used in stair.
- e) State the suitability of escalation & ramp.
- f) Define plastering.
- g) State the necessity of plinth protection.
- h) State two advantages of prefabrication.

### Q1. B) Attempt any TWO of the following:

(2 x 4 = 08)

- a) State four components of building with their function.
- b) State four types of tools used for excavation with sketch of each.
- c) Explain term 'timbering and strutting' for foundation trench.

### Q2. Attempt any FOUR of the following:

(4 x 4 = 16)

- a) Distinguish between framed & load bearing structure with eight parameters.
- b) Explain four general design principles of earthquake resistant building.
- c) Explain procedure used for Centre line method of layout with its at least eight steps.
- d) Draw a labeled sketch of i) raft and ii) isolated footing.
- e) Suggest the suitable and economic foundation for 3m depth of black cotton soil with neat sketch.
- f) State the types of bond & describe English bond.

**Q3. Attempt any FOUR of the following:** (4 x 4 = 16)

- a) Why English bond is stronger than Flemish bond? Give four reasons.
- b) Explain paneled door with its neat sketch.
- c) Suggest the location of battened door, glassed door, collapsible door, rolling shutter.
- d) Explain doglegged stair their with its neat sketch.
- e) Define skirting & dado with suitability.
- f) Explain king post truss and queen post truss with its suitability of each.

**Q4. Attempt any FOUR of the following:** (4 x 4 = 16)

- a) Suggest the suitability of Shahabad, Kota, Marble, Granite.
- b) Explain any two defects in plastering with its neat sketch.
- c) Explain pointing with its necessary.
- d) Suggest the suitability of following painting.
  - i. White wash
  - ii. Colour wash
  - iii. Distemper
  - iv. Plastic emulsion
- e) Draw a neat sketch of formwork for column and beam.
- f) Explain termite proofing with its necessity and importance.

**Q5. Attempt any FOUR of the following:** (4 x 4 = 16)

- a) Suggest the materials used for formwork for column, beam, chajja, loft.
- b) State four uses of wire mesh and geosynthetics
- c) Explain four necessities and four uses of readymix concrete.
- d) Explain workability and w/c ratio of readymix concrete.
- e) Distinguish roller compacted concrete and high impact resisting concrete at least four parameter.
- f) Explain the procedure of vacuum dewatered concrete.

**Q6. Attempt any TWO of the following:** (2 x 8 = 16)

- a) Explain pile foundation and well foundation with neat sketches.
- b) Distinguish between stone masonry and brick masonry. (at least eight point)
- c) Explain soil reinforcing techniques with its four necessities and strengthening of embankment.