Subject: Architectural Building Construction and Material	Subject Code: 303 (Sem 03)
Maximum Marks: 50	Minimum Passing Marks: 20
Date: 26th December 2022	Duration: 3 hours

Notes:
- All Questions are Compulsory
- Marks will be given for clarity of sketch and relevant details.
- Sketches should be given labeling and dimension

1- Answer <u>any one</u> of the following Questions (Marks 20) 10

(A) Design a RCC foundation (Isolated footing) for an RCC column measuring 950mm x 450mm.

I. Draft a typical plan of the foundation and column, showing location and sizes of all steel reinforcements. Label and dimension wherever necessary.(Marks - 10)

II. Draft a typical Section through foundation and column, showing location and sizes of all steel reinforcements. Label and dimension wherever necessary.(Marks - 10)

(B) Design and Draft a typical façade section of an RCC structure from Foundation to terrace. (G +2 Structures) Consider UFL to UFL height as 3M, Show window at Cill 0.9M with 1M height. Show all necessary RCC components. (20 Marks)

2- Answer <u>any two</u> of the following question.(Marks - 20)

I. Sketch and label any three types of RCC columns with reinforcement details.
II. Sketch a typical section a RCC cantilever beam and a RCC chajja. Label and dimension necessary reinforcements.
III. Sketch and Label Typical reinforcement detail for One Way Slab. Show reinforcement in plan, and two sections.
IV. Sketch and label a typical section through toilet slab. Give necessary dimensions.

TWO

3- Answer <u>any three</u> of the following question(Marks - 30) 20

I. Explain difference between one way slab and two way slab..
II. Explain types of shallow foundation with neat and labeled sketches.
III. Explain process of curing. Why is it required and its duration.
IV. What are the different grades of concrete? How to select a suitable concrete grade for construction.