

University of Mumbai  
Mahatma Education Society's  
Pillai College of Architecture, New Panvel *March*  
Bachelor of Architecture Examinations ~~August~~ 2022

Subject: Architectural Building Construction and Material

Subject Code: 303 (Sem 03)

Maximum Marks: 50

Minimum Passing Marks: 20

Date: 6<sup>th</sup> March 2023

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- Design a Reinforced concrete slab for span 5600mm x 7200mm. (Marks 20)

- a- Draft Plan Showing all relevant reinforcement. Label and dimension all necessary components. (Use color pen if required)
- b- Draft one Section Showing all relevant reinforcement. Label and dimension all necessary components. (Use color pen if required)

2- Answer any two of the following question. (Marks - 20)

- I. Sketch and label a typical section through toilet slab. Give necessary dimensions
- II. Sketch and label reinforcement detail for typical isolated RCC pad foundation.
- III. Sketch a typical section of RCC cantilever slab. Label and dimension necessary reinforcements.
- IV. Sketch and Label Typical reinforcement detail for One Way Slab. Show reinforcement in plan, and one sections.

3- Answer any two of the following question (Marks - 10)

- I. Explain process of centering of columns. Why is it required?
- II. Explain with sketches different types of foundation.
- III. Explain process of curing. Why is it required and its duration for RCC structure.
- IV. What are the different grades of concrete? How to select a suitable concrete grade for construction.