

B. ARCH, II YEAR, III SEMESTER

BC-3: BUILDING CONSTRUCTION

Time – 3.00 Hours

Maximum Marks - 100

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- a) Answer any Four questions out of 1 to 7 questions.
b) Question No. 8 is compulsory and answer any four out of six sub-questions.
c) Use neat sketches wherever necessary.
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- Q1. (i) Explain in short with sketches (3x2=6M)
(a) Tread
(b) Pitch
(c) Landing
- (ii) Draw plan and longitudinal section of a 'dog-legged staircase' in 1:50 scale as per the details below (14M)
- Level difference between floors is 300cm
 - Riser= 15cm
 - Tread= 30cm
 - Width of staircase= 120cm
 - Material – RCC
- Q2. (i) Explain the difference between RCC and Ferro cement. (5M)
- (ii) Draw detailed plan and section of one – way RCC slab for a room of 3x6 m with load bearing walls of 23 cm thick (Brick masonry). (15M)
- Slab TK = 10 cm
 - Main bars = 8 mm dia @ 15 cm c/c
 - Distribution bars = 8 mm dia @ 20 cm c/c

- Q3. Design a 'Sliding' metal gate with all details (20M)
With respect to metal joints and fixing to the compound wall
- size of opening = 3.6m
 - height of gate = 1.5m
- Q4. Draw all the necessary details (plan, elevation, sections) for built in wardrobe. (20M)
- Q5. (i) Explain any two types of partition walls. (2x10=20M)
(ii) With a detailed section, explain the laying of a interlocking paver blocks.
- Q6. (i) Briefly explain any four types of surface finishes for wood. (2x10=20M)
(ii) Explain the processes involved in applying Emulsion paint for an internal wall.
- Q7. (i) Explain any two types of RCC footings with detailed drawings. (2x10=20M)
(ii) Explain a typical wooden panelling details with neat sketches.
- Q8. Write short notes (4x5=20M)
- Sliding door
 - Cover blocks
 - Anthropometry in Kitchen
 - Development length
 - Island Kitchen
 - Shear reinforcement
