

17/AJC/S-3/4/E

P-3

31/217

**DRAUGHTSMAN CIVIL  
(PRACTICAL)  
SEMESTER - III**

**TIME: 8 HRS.**

**MARKS: 270**

**Note: Attempt any three questions. All questions carry equal marks.**

1. Draw to a suitable scale, the longitudinal sectional, a cross section near support and a cross section in the centre of span of a rectangular R.C.C beam simply supported with the following data: Clear span:4.8m. effective span:5.00m, width of the beam :30cm, overall depth of beam: 50cm, effective depth of beam:47.5cm, main reinforcement consists of 20mm.  $\Phi$ . bars, out of 5 bars, 2 numbers alternative bars bent up; one bar bent up at  $L/7$  and the other at  $L/4$  from the centre of supports .provide 2 no's bar of 12mm  $\Phi$  as anchor bars. provide two-legged stirrups of 6mm  $\Phi$  @15cm C/C, prepare bar bending schedule.
2. Draw the detail of bath room and water closets.
3. Draw half sectional elevation and half top and half bottom plan of a masonry arch 2 span bridge from the following data:- Number of spans:2, span:8.00m, rise:2.00m, height of springing from river bed =6.00m, width of Road way =6.50m, Foundation are to be taken to the hard rock, which is available at a depth of 1.5m. Use thumb rules to calculate standard proportions.
4. Draw with a suitable scale of typical cross-section of railway tracks cutting & embankment (single lane), showing all the details.

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