

Total No. of Questions : 4]

SEAT No. :

P1331

[Total No. of Pages : 2

[5157] -2001

F. Y. B. Arch. (Semester - II)

BUILDING TECHNOLOGY AND MATERIALS -II

(2015 Pattern) (End Sem.)

*Time : 3 Hours]*

*[Maximum Marks : 70*

*Instructions to the candidates:*

- 1) *Answers to the two sections should be written in separate books.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*
- 5) *All questions are compulsory.*

**SECTION -I**

**Q1)** Answer any one of the following:

**[20]**

- a) Draw plan, section and elevation through a casement window of size 1500mm×1200mm at a scale of 1:10 giving all annotations.

OR

- b) A room of size 5.0m×9.0m internal dimension needs a king post truss roofing. Draw key plan at 1:100 and elevation of king post roof truss at 1:20

**Q2)** Attempt any three questions out of five.

**[3×5=15]**

- a) Draw and name any three types of lengthening joints.
- b) Draw and name any three tools in excavation.
- c) Draw proportionate sketches of flat and segmental arch.
- d) Draw plan and section through stone and brick type of composite masonry.
- e) Describe good qualities of stone for load bearing masonry construction

**SECTION -II**

**Q3)** Attempt any two questions out of three.

**[2×10=20]**

- a) Sketch and explain fixing detail of glass panel in partly glazed door of size 900 mm ×2100mm.

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- b) Explain and sketch any five terminologies in an arch.
- c) Draw plans of alternate courses of both English and flemish bonds in one and half brick thick wall.

**Q4)** Attempt any three questions out of five.

**[3×5=15]**

- a) Define magnitude, richter scale, focal point in earth quake.
- b) Sketch and explain fixing detail of tread and riser in a timber staircase.
- c) Draw and name any five types of carpentary tools used in timber construction.
- d) Explain with sketches vaults and domes.
- e) Explain with sketches any three joints in bamboo.

