

Total No. of Questions : 4]

SEAT No :

P3564

[4862] - 1

[Total No. of Pages : 2

First year B. Arch - I

BUILDING TECHNOLOGY AND MATERIAL - I

(1201502) (PP) (2015 Pattern) (End Semester -I)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer section I and section II on separate answer sheets.*
- 2) All questions are compulsory.*
- 3) Draw Neat sketches wherever necessary.*
- 4) Figure to the right of each question indicates full marks.*
- 5) Assume suitable data wherever necessary.*

SECTION - I

Q1) a) Draw at a scale of 1: 10, L- Junction in Double Flemish Bond where both walls are 1 brick (230 mm) thick. **[20]**

- i) Alternate odd / even courses.
- ii) Elevation of wall with six courses.
- iii) View.

OR

b) Draw plan and section through strip foundation having 230 mm (one brick) thick load bearing brick wall and show all the details at foundation, plinth formation and steps leading upto the plinth, scale 1 : 10. Assume,

- i) Stone foundation depth 1200 mm.
- ii) Plinth 600 mm.

P.T.O.

Q2) Explain with sketches (Any Three): **[15]**

- a) Any five masonry tools.
- b) Types of waves during Earthquake.
- c) Through stone and bond stone in stone masonry.
- d) Load transfer in Load bearing structure.
- e) Composite Masonry.

SECTION - II

Q3) Explain in detail with sketches (Any Two): **[20]**

- a) Plan of Alternate courses attached pier in,
 - i) Wall of one and half brick (350 mm) thick English Bond.
 - ii) Wall of one brick thick (230 mm).
- b) Six terminologies in semicircular arch.
- c) Typical section through a building showing any five building elements.

Q4) Write short notes on (Any Three): **[15]**

- a) Soil bearing capacity and concept of bulb of pressure.
- b) Importance of plastering and two types of plastering.
- c) What is Lintel and any two types of lintel.
- d) Mortar and two types of mortar.
- e) Concrete block as a building material.

