

Total No. of Questions : 4]

SEAT No. :

P3864

[Total No. of Pages : 2

[5062] - 1001

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

BUILDING TECHNOLOGY AND MATERIALS - I

(2015 Pattern)

Time : 3 Hours]

[Max. 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]

Draw at a scale of 1:10, L-Junction in DOUBLE FLEMISH BOND, Where both walls are one and a half brick thick (350 mm) each

- a) Plan of alternate odd/even courses.
- b) Elevation of wall with six courses.

OR

Draw at a scale of 1:10, a typical SEMI-CIRCULAR ARCH of span 2000mm, with all necessary terminology.

Q2) Answer (Any three) of the following : [15]

- a) Explain with a sketch the concept of BULB of pressure.
- b) Explain with sketch, strip foundation.
- c) Draw sketches of (05) five types of special bricks.
- d) What are different grades of cement? Explain in brief cement mortar.
- e) Sketch and state purpose of use of any (03) three tools used in excavation.

P.T.O.

SECTION - II

Q3) Answer any two of the following. **[20]**

- a) Explain with sketches any (05) Five earthquake resistance measures for load bearing construction.
- b) Sketch any (02) two types of stone masonry used in construction. Explain basic terminology.
- c) Sketch a well annotated section of a typical ground + 1 load bearing structure.

Q4) Answer Any three of the following : **[15]**

- a) Qualities of a good brick.
- b) What is coping? Draw and explain any three types of coping.
- c) What is pointing? Explain with sketches any three.
- d) Draw alternative courses of 1 Brick thick attached pier.
- e) List any 03 advantages and 03 limitations of concrete blocks.

