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B.Arch. (2019 PIT) (Sem.-1)
BUILDING CONSTRUCTION & MATERIALS-I

Subject Code: UC/BARCH-105-19 M.Code: 77237

Time: 4 Hrs. Max. Marks: 40

### INSTRUCTIONS TO CANDIDATES:

 Attempt four questions in all selecting one from each Unit. All questions carry equal marks. Use any suitable scale for your drawing work.

#### UNIT-I

- List any four types of cement. What are the constituents of cement? Explain its advantages
  over lime in building construction.
- Compare the constituents, properties and uses of lime mortar and cement mortar.

### UNIT-II

- Draw to a suitable scale, plans of consecutive courses and elevation of cross junction of 1 brick thick and half-brick thick wall in English bond.
- Draw plans of consecutive courses and elevation of a T-junction between a 9" and 13½" brick wall in English bond.

# -UNIT-III

- Draw a vertical section through a 9<sup>rd</sup> thick external brick wall in a single storey structure showing threshold, sill and lintel details.
- Draft out on a suitable scale a flat, segmental and semi-circular arch in brick masonry.

# UNIT-IV

- Draw detail plan, elevation and section of Random rubble masonry (built to course) for a 450mm thick stone wall.
- Sketch out scaled diagrams (plans, elevations and sections) of various types of stone masonry used in building works.

NOTE: Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.

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