

Seat No. : _____

NO-124

December-2015

B. Arch., Sem.-V

AR-502 : Building Construction – V

Time : 3 Hours]

[Max. Marks : 100

- Instructions :**
- (1) Figures to the right indicate full marks.
 - (2) Assume suitable data, if necessary.
 - (3) Neat, proportionate sketches are necessary to explain theories.

1. Answer following : (any **two**) **30**
 - (A) Draw and explain in brief different types of shell structures and domes.
 - (B) Different types of trusses.
 - (C) What is an earth-quake resistant construction ? Explain its behaviour during earthquake.
 - (D) Draw typical section of escalator mentioning terminology and dimensions.

2. Differentiate the following : (any **two**) **20**
 - (A) Elevators and Escalators.
 - (B) Seismic joints and construction joints.
 - (C) Focal point and epicentre with reference to earthquake.
 - (D) Portal frame and trusses.

3. Write short notes on following : (any **two**) **20**
 - (A) Explain expansion joints and contraction joints with examples.
 - (B) Building configuration, Asymmetry in plan, Soft storey with reference to earthquake resistant construction.
 - (C) Draw typical section of ramp mentioning materials, dimensions and construction details.
 - (D) Draw and explain application of long span structures for building namely indoor sports stadium, warehouse, factory and banquet hall.

4. Answer the following : (any **two**) **30**
 - (A) Any 5 typical details to make a building earth-quake resistant for load-bearing structure.
 - (B) Pounding effect, Redundancy, Reentrant corners.
 - (C) Plate structures and Membrane Structures.
 - (D) Space frames and Cable structures.

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