



Seat No. _____

HAG-161001010304

B. Architecture (Sem. III) Examination

May - 2023

Structure-III

Time : 2 Hours / Total Marks : 50

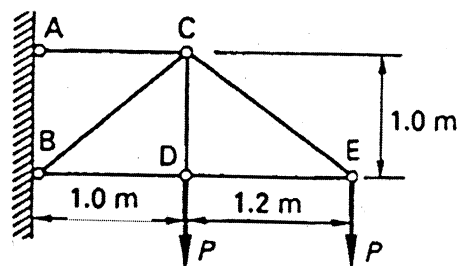
- Instructions :**
- (1) Answers should be specific with related explanatory text and diagrams.
 - (2) All diagrams should be neat and clean with proper scale.
 - (3) All diagrams must have appropriate title, subtitle, label, dimensions etc.
 - (4) Use bullet point or key sentence to give answer rather than paragraph.

- 1** State whether the following statements are true or false with **15** short explanation. (any five)
- (1) Pile foundation is considered as a Deep foundation.
 - (2) Three-hinged arch structure doesn't resist bending moment at junctions.
 - (3) Portal frames have rigid connections at a junction of beam and column.
 - (4) Truss is a structure, which allows bending moment to its joints?
 - (5) The strength of a I beam increases with increase in depth.
 - (6) An Arch is a curved structure for spanning an opening designed to support a vertical load primarily by axial compression.
 - (7) Combine footing is done when distance between two columns is less.

2 Draw neat sketches or diagrams only. (any five) 15

- (1) Statically determinate and indeterminate structure
- (2) Mass Moment of Inertia.
- (3) Meridional and hoop forces in dome
- (4) Raft footing
- (5) Pad or Isolated footing
- (6) Two way structural slab with its proportion

3 Find the following. 20



- (a) Identify the compression and tension for each member of the following by inspection
- (b) Find the resultant force through vector diagram
