



DDD-161001010106

Seat No. _____

B. Arch. (Sem. I) Examination

May - 2022

Structure - I

Time : 2 Hours]

[Total Marks : 50

1 State whether the following statements are true or false : 10

(any five)

- (a) Beam is essentially a linear element, subject to transverse load; must develop internal resistance to shear and bending and resist excessive deflection (sag).
- (b) Flat arch is non structural element for spanning an opening to support a vertical load.
- (c) Floor is considered as a rigid planner structural element.
- (d) The mechanics of forces applied to bodies, which are not moving. They are considered to be in static equilibrium.
- (e) Rigid frame and post & lintel system are same as per structural system.
- (f) IPSA school campus building is the example of rigid structural system.

2 Explain in brief with neat sketches or diagrams : (any four) 20

- (a) Stress
- (b) Tension
- (c) Strain
- (d) Co-linear non concurrent forces
- (e) Trabeated structural system

3 Find the following : (any two)

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- (a) Identify and discuss the system adapted in above mentioned building.
- (b) Discuss any one system having rigid and non rigid structural element.
- (c) Discuss wind load and dead load coming to the building.
