

P P SAVANI UNIVERSITY

Third Semester of B. Arch. Examination
December 2021

SAAR2272 Building Construction & Technology-III

28.12.2021, Wednesday

Time: 09:00 a.m. To 12:00p.m.

Maximum Marks: 100

Instructions:

1. Question No. 1 is mandatory.
2. Make suitable assumptions and draw neat figures wherever required.

- Q - 1** Write True or False **[20]**
- (a) Lifts are used for vertical transportation in building
 - (b) Wooden flooring can only be constructed with Maple Wood also
 - (c) PCC is type of concrete
 - (d) Flooring can be done only with various materials
 - (e) RCC provides good strength to the material
 - (f) Wooden flooring can be applied/constructed in 3rd floor also.
 - (g) Columns can be constructed in circular pattern also
 - (h) High construction skills are required while working with composite materials.
 - (i) Quality of concrete does matter
 - (j) Beams are the horizontal elements in tension
 - (k) Cement is highly important for making concrete
 - (l) Seasoned wood should be used for flooring
 - (m) Frame structure consist only of columns, beams and slabs
 - (n) Fine aggregate is substitute for sand
 - (o) Concrete is a sole material
 - (p) Mortice and tenon joint is a strong wooden joint
 - (q) Beams are made up of composite material.
 - (r) Cement is also known as Portland cement
 - (s) 2 or more materials are when used are known as composite materials
 - (t) Cement is a chemical
- Q - 2** Explain in short- **(10)**
- (a) What is shear wall?
 - (b) Elements Wooden Floor (Ground)
- OR**
- Q - 2** Define- **(10)**
- (a) Vertical transportation
 - (b) Pre-cast concrete
- Q - 3** Explain in Short- **[10]**
- (a) Jack arch
 - (b) What is concrete
- OR**
- Q - 3** Explain in short- **(10)**
- (a) What are composite materials?
 - (b) What are various types of stare cases? Sketch any 1 (the sketch should not be from Question no. 06)

- Q - 4** Attempt any One. **[10]**
- (a) Sketch a neat and clear diagram of single flight staircase.
 - (b) Sketch neat and clean diagram of Dog-leg Staircase
- Q - 5** What is the importance of Handrail in staircase **[10]**
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- Q - 6** Attempt any 2 **[20]**
- (a) Sketch a neat and clear diagram of single flight staircase.
 - (b) Sketch neat and clean diagram of Dog-leg Staircase
 - (c) Sketch a neat and clean diagram of quarter-turn staircase
- Q - 7** Write detailed answers for any 2 **[20]**
- (a) Factors affecting choice of flooring system
 - (b) Difference between strength of concrete and wooden staircase
 - (c) Elements of staircase
