

Enrolment No. \_\_\_\_\_

## SARVAJANIK UNIVERSITY

S-2024 Date: 19-04-24 Time: 01:30 PM to 04:30 PM  
Backlog Exam

### B. Interior Design - SEMESTER- I EXAMINATION

Course Code: BIID11103

Total Marks: 180

Course Name: BASICS OF BUILDING MATERIALS, COMPONENTS AND STRUCTURE -I

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

#### Q.1. (A) Do as Directed

(20)

1. \_\_\_\_\_ Metals do not have a significant amount of iron in its chemical composition.
2. \_\_\_\_\_ is used for the plastering and pointing process in construction.
3. Clay is much more versatile, manageable & ecofriendly than wood. (True or False)
4. \_\_\_\_\_ is name of good quality wood used to make shutters for a wooden paneled door.
5. In a mortar, the binding material is cement. (True or False)
6. Building can be broadly divided into two components sub-structure and \_\_\_\_\_
7. Hinge support allows rotation. (True or False)
8. Good sand should have good amount of salt in it. (True or False)
9. Full form of HDF.
10. Marble stones are used for carving and relief work in a building. (True or False)

#### (B) Select the correct answer

(20)

1. Inner part of a timber log surrounding the pith is called  
a) Sapwood   b) Cambium Layer   c) Heart wood   d) none of these
2. Sandstone is a  
a) Sedimentary rock   b) Metamorphic rock   c) Igneous rock   d) Volcanic rock
3. Which of the following is the purest form of iron?  
a) Cast iron                      b) Wrought iron  
b) Mild steel                      d) High carbon steel

4. Due to excess of moisture in timber, it
  - a) Cracks      b) Bends      c) Reduces to pieces      d) None of these
5. When we cut apple, load is transferred by
  - a) Shear      b) Tension      c) Bending      d) Torsion
6. Sunk slab means
  - a) Slab at top of a beam      b) Slab at bottom of a beam
  - c) Slab at mid-level of a beam      d) none of these
7. Cantilever beam means
  - a) One end fixed & other free      b) both end fixed
  - c) One end hinged & other roller      d) both ends free
8. The rocks which are formed due to cooling of magma at a considerable depth from Earth's surface are known as
  - a) Dynamic rocks      b) Sedimentary rocks      c) Volcanic rocks      d) Igneous rocks
9. Which amongst these stones are commonly used on kitchen platform top?
  - a) Kotah      b) White Makrana Marble      c) Laterite      d) Granite
10. A construction system where walls are used as filler material between structural members is known as?
  - a) Frame structure      b) Load bearing structure      c) Hybrid structure

**Q2. (A) Define/ Explain the following (Any Four)**

**(20)**

1. Explain Wind load
2. What are sedimentary rocks?
3. Explain the function of weather shade in a building.
4. Define plastics and its types.
5. Define Metamorphic rocks
6. Explain Cantilever slab

**(B). Answer in Brief (Any Four)**

**(20)**

1. Explain bending action
2. Explain different types of cement and its properties.
3. Explain metal alloys and its uses.
4. Explain Rapid Hardening cement and its properties.
5. What is the difference between one way & two way slab?
6. What is quick lime? Describe its applications.

**Q3: Sketch and Label the following in detail (Any Five)**

**(50)**

1. Any 3 defects in timber due to seasoning.
2. Any three market forms of steel
3. Example showing Axial Tension
4. Example showing Torsion.
5. Footing for load bearing structure
6. Structure of a tree with all its components
7. Sill and lintel in a building

**Q4. Answer in detail with neat sketches. (Any Two)**

**(50)**

1. What are ferrous and Non-Ferrous metals? Elaborate with its properties and applications.
2. What is a Frame structure in building? Explain with neat wall sections various elements of the structure and its functions.
3. What is artificial timber? Enlist types of artificial timber products available and explain any two types of artificial timber in detail with its applications in interiors.