

Enrolment No.

SARVAJANIK UNIVERSITY

S-2024 Date: 15-04-24 Time: 01:30 PM to 04:30 PM
Regular / Backlog Exam

B. Interior Design - SEMESTER-- II EXAMINATION

Course Code: BIID11203

Total Marks: 180

Course Name: BUILDING MATERIALS, SYSTEMS AND ENVIRONMENTAL STUDIES

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. In _____ bond brick laid with its length parallel to the face or front or direction of the wall.
2. Temperature stress is created because of increase or decrease of temperature.
(True or false)
3. A three track window will give _____ % opening.
4. An arch with its centre above the springing line is known as _____ arch.
5. A revolving door has springs which help closing and opening of shutters. (True or false)
6. The minimum clear vertical distance between the tread and overhead structure is known as _____ of a stair.
7. A row of arches is known as an arcade. (True or false)
8. It is advisable to install aluminum window frame during the process of brick masonry before plastering. (True or False)
9. In a sloping roof the triangle window projecting out is called _____ window.
10. Truss transfers load by _____ action.

(B) Select the correct answer

(20)

1. The minimum headroom of a stair is _____.
a) 1.0 meters b) 1.2 meters
c) 3.0 meters d) 2.0 meters

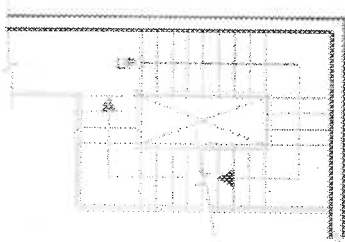
2. Because of transverse load _____ actions are created.

- a) Axial tension b) Axial & bending
- c) Axial compression d) Bending & shear.

3. An arch with center point on the springing line is known as _____?

- a) Venetian Arch b) Segmental Arch
- c) Horse shoe Arch d) Semicircular Arch

4. Identify the type of stair in the image.



- a) Half Turn Stairs b) Bifurcated Stairs
- c) Three quarter Turn Stairs d) Spiral stairs

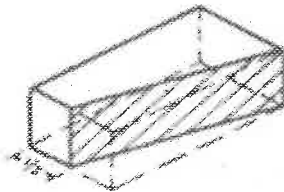
5. In the given list below which are the factors affecting Climate?

- a) Latitude b) Ocean Currents
- c) Prevailing Winds d) All of Above

6. The portion of brick cut across the width in the half is called _____

- a.) Half Split b.) Half Closer
- c.) Half Bat d.) King Closer

7. Identify the given image.



- a.) Mitred Closer b.) King Closer
- c.) Bevelled Closer d.) Bevelled bat small

8. Axial strain is a ratio of change in length/ _____

- a) Original length b) Deformed length
- c) Standard length d) none of above

9. Weather shed are provided at _____ level in the building.
- a) Sill Level
 - b) Lintel level
 - c) Plinth level
 - d) Slab level
10. In a stair, the continuous series of steps between landings is known as _____.
- a) Rise
 - b) Flight
 - c) Soffit
 - d) None of these.

Q2. (A) Define/ Explain the following (Any FIVE)

(20)

1. Define Sheer stress.
2. Explain purlins and rafters in a roof.
3. Define Intrados and Extrados in an Arch.
4. What are tread, risers and a flight in a stair?
5. Explain eaves and its function in a roof.
6. Define a Dome structure.
7. Explain deployable structures.

(B). Answer in Brief (Any FOUR)

(20)

1. What are the Chemical Components present in the soil for good brick earth?
2. Explain and sketch Gable Roof.
3. What are Flush doors? Explain its benefits.
4. Explain the Importance of weather shade in buildings.
5. Explain the characteristics of Hot and Humid Climate with sketches.
6. What are the considerations for stability of an arch?

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

(50)

1. Plan and elevation of one brick thick Flemish bond
2. Timber Louvered window
3. Single joist timber floor
4. Sketch A – Frame Roof
5. Bifurcated stairs in plan and elevation.
6. R.C.C. Boot lintel.
7. Timber partition walls and its components.

Q4. Answer in detail with neat sketches. (Any two)

(50)

1. What are the considerations for designing comfortable stairs? Define and label with neat diagrams various components of a stair?
2. Explain Rubble and Ashlar stone masonry in detail with sketches.
3. Explain functioning of a Revolving door and its components with sketches.