

Enrolment No. _____

SARVAJANIK UNIVERSITY

W-2024 Date: 17-10-24 Time: 01:30 PM to 04:30 PM
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. Weather protection is generally provided at _____ level
2. A row of arches is known as a Colonnade. (True or false)
3. In a sloping roof the triangle window projecting out is called _____ window.
4. We can achieve 75% of the opening in a typical _____ track sliding window.
5. A revolving door has pivot which help closing and opening of shutters.(True or false)
6. _____ shape is used for membrane structure to avoid fluttering.
7. Hoop compression is axial compression. (True or false)
8. _____ is the vertical elevation of an object above a surface (such as sea level or land).
9. Unbroken series of steps between landings is called a _____.
10. Oxides of iron is chief constituent of good brick earth. (True or false)

(B) Select the correct answer

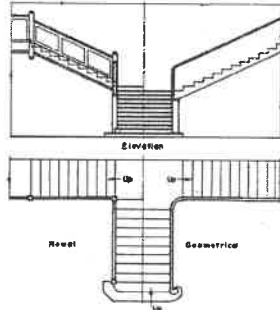
(20)

1. 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
2. An arch with forming an internal equilateral triangle for its construction is known as _____?
a) Flat Arch b) Segmental Arch
c) Pointed Arch d) Semicircular Arch

3. Because of transverse load _____ actions are created.

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

4. Identify the type of stair in the image.

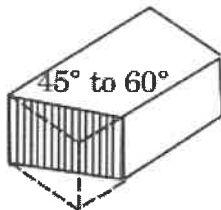


- a) Half Turn Stairs
- b) Bifurcated Stairs
- c) Three quarter Turn Stairs
- d) Spiral stairs

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. Identify the given image.



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

7. To avoid temperature stress _____ is used

- a) Seismic Joint
- b) Expansion joint
- c) Joint Filler
- d) none of above

8. The tropical climate which consists of heat waves warm winds and low humidity comes under which climatic conditions?

- a) Hot-wet
- b) Hot-dry
- c) Cool-dry
- d) Rainy

9. In a stair, the bottom side of the steps is known as _____.

- a) Rise
- b) Flight
- c) Soffit
- d) None of these.

10. The outer curve of an arch is called _____.

- a) Extrados
- b) Intrados
- c) Skewback
- d) Spandrel

Q2. Explain the following (Any FIVE)

(40)

1. Explain the characteristics of Hot and Humid Climate with sketches.
2. What are the considerations for stability of an arch?
3. Define Shear stress.
4. Explain Stone masonry and its uses
5. Define tread, risers, headroom and a flight in a stair?
6. Define a Dome structure and its behavior
7. What are the Chemical Components present in the soil for good brick earth?

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

(50)

1. Draw various Shell structure generated by rotation of curve, by translation of curve & by other methods.
2. Plan and elevation of one brick thick Flemish bond
3. Sketch Timber Louvered window in elevation and section.
4. Sketch and label Horse shoe Arch and its components.
5. Sketch A – Frame Roof
6. Plan & elevation of Spiral staircase.
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 components of a stair?
2. Explain the brick manufacturing process in detail.
3. Explain functioning of a Revolving door and its components with sketches.

