Enrolment No._____

SARVAJANIK UNIVERSITY

W-2024 Date: 28_03_2025
09_30 am to 11_30 am
Interim Backlog Exam

B. Interior Design - SEMESTER- I EXAMINATION

Course Code: BIID31102 **Total Marks: 50**
Course Name: BASICS OF BUILDING MATERIALS, COMPONENTS AND STRUCTURE.

Instructions:

Instructions:
1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Draw figures / sketches wherever required.

Q.1. Do as directed **10 Marks**

1. When a nail is hammered in a wall it is an _____ load.
2. When we put hanger on a rope , it will apply _____ load on rope.
3. Ability to carry load is known as _____.
4. Aggregates whose particles do not pass through 4.75 mm IS and not greater than 7.5mm are termed as _____.
5. _____ metals do not have a significant amount of iron in its chemical composition.
6. Which construction system has structural walls as load transferring elements?
   a) Frame structure b) Load bearing structure c) Hybrid structure
7. Rocks deposited by action of water or wind are called _____
8. Marble is a _____rock.
9. Clay is much more versatile, managable & eco friendly than wood.
10. Bamboo has higher _____ strength than steel because its fibers run axially
    Tensile (Correct), Compressive, bending

Q.2 Answer the following in brief (Any 2) **10 Marks**

1. Type of Stone & its uses
2. Explain classifications of aggregates
3. Describe Sill and Lintel in a building
4. Define Metal alloys and its uses.

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Q.3. Answer in Detail (Any 2) **20 Marks**

1. Kiln seasoning process of timber
2. Wall section of Frame Structure and label the components
3. Enlist and sketch different types of staircase.
4. Enlist the methods of Working on bamboo. Explain any one in detail.

Q.4. Answer the following (Any 2) **10 Marks**

1. Rock cycle
2. Sketch and label the different types of doors according to function.
3. Radial Sawing of a timber log
4. Cross section of Tree with all its layers

Q.5.	Answer in Detail (ANY THREE)	30
A	1. Explain material importance in Design. 2. Which factors or parameters affecting the selection of materials for designs? Explain any 3 important ones. 3. Explain Residential PEX Plumbing system of plumbing 4. Explain AHU System for HVAC System.	
B	Write Short Note on (Any Six)	30
	1. Techniques to bend the wood. 2. Compound material and its ingredient's importance 3. Ecological Footprint. 4. Mycelium 5. 3 R's 6. Criteria for futuristic material 7. Properties and Characteristics for recycling, upcycling and downcycling.	
Q.6	Answer in Detail (ANY THREE)(10 Marks each)	30
A	1. How can you conceptualize futuristic materials and technologies explain briefly with examples? / With the flow chart Conceptualize Futuristic materials and further Explain each one in brief with a relevant example 2. Why using sustainable building materials makes sense economically as well as ecologically. 3. What are the features of sustainable building materials? List any 5 and explain in detail. 4. Explain Radiant cooling system for commercial use.	
B	Answer the following (ANY ONE)	30
	(A) Eco vision Environmental Resources is plastic waste management site in Surat which was visited by you to understand the waste converted into a futuristic material, explain how collection, segregation, is done at the site. (B) Explain the process how a membrane and a rigid plastic waste are converted into different types of granules. (C) Give application of granules. OR (A) Define Recycling, upcycling, Down cycling and sustainability (B) Explain the properties and characteristics of Recycling, upcycling Down cycling and sustainability (C) Give examples of transformation of Recycling, upcycling Down cycling and sustainability	