Enrolment No._____

SARVAJANIK UNIVERSITY

S-2025 Date: 23-05-25 Time: 01:30 PM to 04:30 PM
Backlog Exam

B. Interior Design - SEMESTER– 7 EXAMINATION

Course Code: BIID11702 **Total Marks : 180**

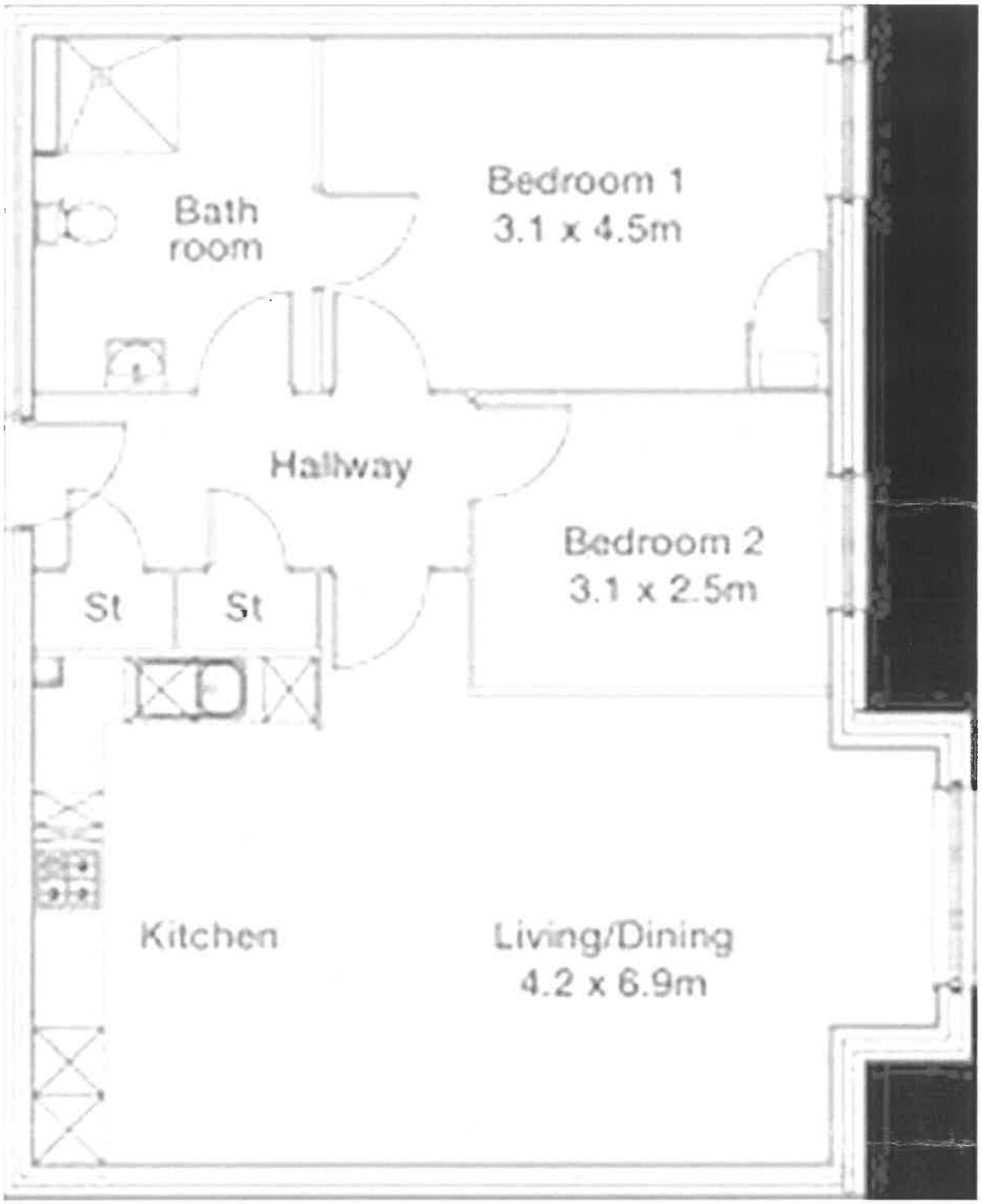
Course Name: Advanced Interior Materials, Systems & Services

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Draw Illustrations, Sketches, Labeled Diagrams where ever applicable**

Q1	Answer the following (All questions are compulsory)	36 Marks
1)	Resin is one of the Binder materials for carbon fiber. (True / False)	
2)	The convex surface may be provided for scattering of reflected sound waves at one point. (True / False)	
3)	'Recycling of material' for reuse is a part of 'Embodied carbon' for a building material. (True / False)	
4)	The angle of reflected sound wave is same as an angle of incident in case of flat surface. (True / False)	
5)	Actuator changes a physical parameter to an electrical output (True / False)	
6)	The analog signals have continuous electrical signals, while digital signals have non-continuous electrical signals (True / False)	
7)	Insulation property of cork makes it favourable in floors and roofs in regions with extreme climate. (True / False)	
8)	Sensors present the computer with information about the state of the system. On the other hand, actuators accept commands to perform a function. (True / False)	
9)	Installation of material at site is the first stage when we are doing the 'life assessment' of a building material. (True / False)	
10)	'Wood Plastic Composite' is considered to be green material. (True / False)	
11)	The loudness of the sound is measured in _____.	
12)	For doing 'green or sustainable interiors', the biggest priority shall be given to the materials that have the quality of _____.	
13)	_____ is the building material which produces maximum carbon dioxide in its production.	
14)	_____ kinds of materials are used for reflection of sound wave.	
15)	Sound absorption coefficient is represented by _____ (symbol).	
16)	Full form of VOC paint is _____.	
17)	Define Sensor.	
18)	Elaborate DDC.	
Q2	**Answer the following (Answer any 6)**	**36 Marks**
1)	What do you understand by 'Green Interiors' and what are the qualities of 'Green Interior' project?	
2)	Name the various green cycles which are adopted to save environment.	
3)	What is an acoustical defect? Enlist the list of acoustical defects.	

4)	Define Reclaimed materials, Recycled materials and Non - toxic materials. Also give examples for each.	
5)	What are the components of a wireless security system?	
6)	Define Ecological footprint in detail.	
7)	What is the reflection of sound? Discuss the materials used for reflection of sound.	
8)	What is sound? Enlist the various characteristics of sound.	
Q3	**Answer the following in detail (Answer any 6)**	**72 Marks**
1)	Define Carbon Footprint. Write down briefly about all the three types of carbon footprints. (6) Define Carbon Emission. Write down the stages for the two types of carbon emissions. (6)	
2)	What is a Building Automation System? How does a Building Automation system work and what are the different types of Building Automation Systems?	
3)	Explain the method (in detail) for extraction of cork.	
4)	Write down in detail about the IGBC Green Interior Rating system.	
5)	Describe any 2 materials and rationally justify its use as an "Innovative/Futuristic Material" w.r.t sustainability, embodied energy, recyclability and environmental impact.	
6)	Enlist the various acoustical defects and explain any one in detail.	
7)	Discuss in detail about any 'two' green building material used specifically in interior designing of buildings.	
8)	Explain 'Life Cycle Assessment' of a building material. Write down all the stages of it. And write down the parameters to consider when we are doing that assessment of materials.	
Q4	**Design based questions (Answer any 2)**	**36 Marks**
1)	What are the points to be considered for acoustical design?	
2)	Discuss briefly the steps taken for design and implementation of perimeter security Planning.	
3)	Suggest the acoustical planning for the following space: (Assume the proper dimensions of the space) (1) A square shaped office situated in the noisy industrial area. (2) Circular Meditation hall for 200 persons.	
4)	Design the location of the sensor in the given plan, mention its function s and type of sensor and its application.	


Bath
room
Bedroom 1
3.1 x 4.5m
Hallway
Bedroom 2
3.1 x 2.5m
St
St
Kitchen
Living/Dining
4.2 x 6.9m