

**SARVAJANIK UNIVERSITY**

W-2024 Date: 22-11-24 Time: 13\_30 pm - 16\_30 pm  
Regular and Backlog Exam

**B. B.T. - IV. - SEMESTER- VII EXAMINATION**

Course Code: BIID11702

Total Marks: 180

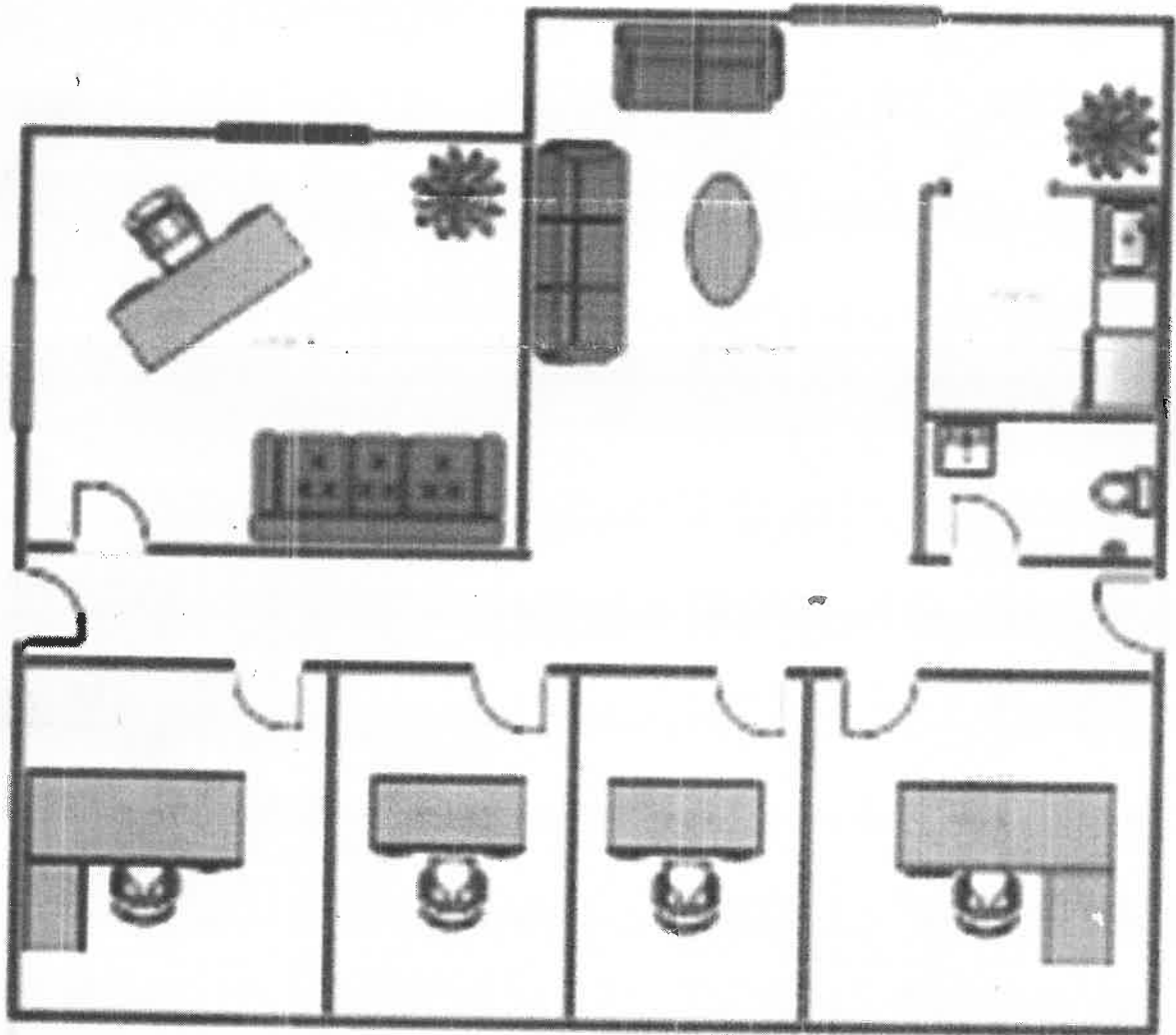
Course Name: Advanced Interior Materials, Systems and Services

**Instructions:**

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

Q1.	Answer the following (Compulsory)	36 Marks
1	Resin is one of the Binder materials for carbon fiber? (True/ False)	
2	Insulation property of cork makes it favorable in floors and roofs in regions with extreme Climate? (True/ False)	
3	_____ kind of materials are used for reflection of sound wave	
4	Is cork a naturally renewable material?	
5	Convex surface may be provided for scattering of reflected sound waves one point (True or False)	
6	Sensor changes a physical parameter to an electrical output. (True /False)	
8	Why was cork used for life jackets in ancient Rome?	
9	The analogue signals have continuous electrical signals, while digital signals have non-continuous electrical signals (True / False)	
10	The loudness of the sound is measured in _____	
11	Carbon Monoxide emission is the biggest contributor to climate change (True / False)	
12	The concept of Recycling of material for reuse increases the life assessment of materials (True / False)	
14	For doing 'green or sustainable interiors', the biggest priority shall be given to the materials that have the quality of _____	
15	The frequency of the sound is measured in _____	
16	Define Sensor	
17	Which building material produces maximum carbon dioxide in its production?	
18	Individual carbon footprint is based on an individual's consumption habit. (True / False)	
Q.2	Answer the following (Any Six)	36 Marks
1	Explain the concept of 3R's in detail. Give examples of materials also.	
2	Write down all the stages of 'Life cycle assessment' of a material.	
3	What is Acoustic? Enlist the principles of acoustics	
4	What is the reflection of sound? Discuss the materials used for reflection of sound	

5	What are the components of a wireless security system?	
6	Types of sensors used in HVAC and explain any one detail	
7	Name the various green cycles which are adopted to save environment.	
8	Define: Ecological Footprint.	
<b>Q.3.</b>	<b>Answer the following (Any six)</b>	<b>72 Marks</b>
1	Describe any 2 materials and rationally justify its use as a "Innovative/Futuristic Material" w.r.t sustainability, embodied energy, recyclability and environmental impact.	
2	Explain briefly at least 6 green materials used in interior designing of buildings. Write down its common uses in interiors.	
3	Write down in detail about the IGBC Green Interior Rating system.	
4	Explain in detail about principles of acoustics	
5	Explain in short about (any two) Reverberation Echoes. Sound foci. Dead spots	
6	Write down in detail about the manufacturing process, production and usage of 'Recycled Plastic' as a building material.	
7	What is a building automation system? How does a building automation system work and what are the different types of building automation systems?	
8	What is the sensor. Define the type of Sensor, Explain any three types of the sensor in detail	
<b>Q.4.</b>	<b>Answer the following (Any two )</b>	<b>36 Marks</b>
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	Design the location of the sensor in the given plan, mention its function and type of sensor and its application	
4	Suggest the acoustical planning for the following space: (Assume the proper dimensions of the space) Answer (1) A square shaped office situated in the noisy industrial area (2) Circular Meditation Hall for 200 persons	



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