

Enrollment No./Seat No.:

## GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Interior Design - SEMESTER - IV EXAMINATION - WINTER 2025

Subject Code: 2X45106

Date: 19-11-2025

Subject Name: Interior Services-II

Time: 02:30 PM TO 04:30 PM

Total Marks: 50

### Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	Marks
<b>Q.1 (a)</b> Design acoustics for a 4000 mm by 5000 mm recording room with schematic sketches.	07
<b>(b)</b> Give schematic design for air conditioning for conference room for 20 people	08
<b>Q.2 (a)</b> Design surveillance for entrance foyer and lobby of a residence with sketches in plan and section.	07
<b>(b)</b> Explain with neat sketches and details: Hydraulic lifts	08
<b>OR</b>	
<b>(b)</b> Discuss about vertical circulation modes generally used in malls and multiplexes. Explain with sketches any one mode of vertical circulation	08
<b>Q.3 (a)</b> Explain with diagram in reference to acoustics:	03
i) Absorption	
ii) Reflection	
iii) Refraction	
<b>(b)</b> Mention whether the following statements are true or false.	02
i) Sound travels faster in air than in solids.	
ii) Soft materials like carpet and curtains help absorb sound.	
<b>OR</b>	
<b>(a)</b> What is noise? Explain in terms of acoustics design.	03
<b>(b)</b> Sketch schematic diagram for fire fighting reserve water tank.	02
<b>Q.4 (a)</b> Explain : Building Management systems ( BMS)	03
<b>(b)</b> Mention different networking types for automation	02

**OR**

**(a)** Mention the correct answer:

**03**

i) What component in an HVAC system is responsible for removing heat from the refrigerant?

- A) Compressor
- B) Condenser
- C) Evaporator
- D) Expansion valve

ii) What is the primary purpose of a VAV (Variable Air Volume) system?

- A) Provide fixed airflow
- B) Control humidity
- C) Vary the amount of airflow based on demand
- D) Change the refrigerant cycle

iii) What does AHU stand for:

- A) Air Heating Unit
- B) Air Handling unit
- C) Airflow Handling Unit
- D) None of the above.

**(b)** Explain travelators.

**02**

**Q.5 (a)** Discuss about the risks involved in home automation

**05**

**(b)** Explain categories/ typologies of buildings for fire hazard as per NBC in detail.

**05**

**OR**

**(a)** Mention details and application of membrane based acoustic panels

**05**

**(b)** Mention in detail: functioning and application of smoke detectors in a public place.

**05**

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