

**Department of Architecture
Leading University; Sylhet
Mid Term Examination; Spring 2021 (Online)**

Course Code: **MECH-361** Course Title: **Building Service-I** Course Credits: **2**

Total Marks: 30 (Written 25 + Viva 05)

Written Exam Time: 9.30 am. to 1.00 pm. (including submission of answer scripts)

[Figures in the right margin indicate marks]

PART-A

[Answer any TWO of the following questions from PART-A]

- | | | | |
|----|----|---|----|
| 1. | a) | How Building can be defined? Identify the purpose of Building. | 03 |
| | b) | What things to be considered to design a smart building in the context of Building Service? | 04 |
| | c) | Why creative building is necessary? | 03 |
| | | | |
| 2. | a) | How Cooling Load is different from Heating Load? Explain with example. | 03 |
| | b) | What types of data required for cooling load calculation? | 04 |
| | c) | What types of heat to be considered to design a building? Show with figure. | 03 |
| | | | |
| 3. | a) | Draw and mark the basic elements of a typical summer air condition system. | 03 |
| | b) | Write down the significance of application of AC in a building | 03 |
| | c) | What types of factors affecting in comfort air conditioning system. | 04 |

PART-B

- | | | | |
|----|----|---|----|
| 4. | a) | How Building Automation and Control System (BACS) helps to design a smart building? | 05 |
|----|----|---|----|

Instructions:

***** You have to submit the answer script within 1.00 pm. (sharp)**

Follow the following rules to submit your answer script:

- ✓ Write the answers in blank papers.
- ✓ Write your – **Student Id, Subject Code, Session, Exam Date and Signature** at the top of the first page of answer script.
- ✓ Number each page of the answer script (upper right corner).
- ✓ Take photographs of every page using your mobile or any other devices.
- ✓ Convert them into PDF format.
- ✓ Name the PDF file as: “student id_SM21_ MID_course code”.
- ✓ **Attach and send the PDF file to:** j.hasan.ipe@gmail.com
- ✓ For any other queries contact on: +880 1712 832699

For Viva:

- ✓ Your viva will start from 2.30 pm.
- ✓ The viva will be conducted via “Zoom” meeting.
- ✓ Link of the Zoom meeting will be provided through “WhatsApp” group.