

B.Tech III Year I Semester (R20) Regular & Supplementary Examinations January 2024

BUILDING TECHNOLOGY

(Common to EEE, ME, ECE, CSE, IT, FT, AI&DS, CSE (AI), CSE (DS), CSE (AI&ML), CSE (IOT), CSE (CS), CS&D and AI&ML)

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- | | |
|--|----|
| (a) What are the special requirements of a building? | 2M |
| (b) Write the factors affecting orientation of buildings. | 2M |
| (c) What are the lighting and ventilation requirement of a building? | 2M |
| (d) Why lighting protection of buildings is required? | 2M |
| (e) What is a ramp? | 2M |
| (f) What is an escalator? | 2M |
| (g) What aims are served by prefabricated construction? | 2M |
| (h) Write the assumptions in earthquake resistant design. | 2M |
| (i) What is meant by sound insulation? | 2M |
| (j) What are the sources of noise nuisance in residential buildings? | 2M |

PART – B

(Answer all the questions: 05 X 10 = 50 Marks)

- 2 Discuss the requirements of the following components of a building; 10M
(i) Kitchen, (b) bathroom and WC, (c) Septic Tanks.
- OR**
- 3 Discuss the essential factors necessitating ventilation. 10M
- 4 What are the various types of fire protection measures to be considered while planning a building? 10M
- OR**
- 5 Discuss the life safety or exit requirements for a building. 10M
- 6 What are the essential requirements of a good staircase? 10M
- OR**
- 7 What factors influence the positioning of passenger and goods lift in a building? 10M
- 8 Explain the components of prefabricated construction. 10M
- OR**
- 9 Discuss the general principles involved in the earthquake resistant design of buildings. 10M
- 10 Discuss the recommendations for noise control in residential buildings. 10M
- OR**
- 11 Explain the sound insulation of floors and ceilings by construction measures. 10M

B.Tech III Year I Semester (R20) Supplementary Examinations August 2023

BUILDING TECHNOLOGY

(Common to EEE, ME, ECE, CSE, IT, FT, AI&DS, CSE (AI), CSE (DS), CSE (AI&ML) and CSE (IoT))

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- | | |
|---|----|
| (a) Define circulation and explain types of circulation in building planning. | 2M |
| (b) How grouping helpful in building planning? Explain with appropriate examples. | 2M |
| (c) List out the types of fires with one example. | 2M |
| (d) Discuss rod type lightning protection for building and note down the limitations. | 2M |
| (e) Define tread and riser. Also mention the range for residential building. | 2M |
| (f) List out the types and stairs. | 2M |
| (g) Explain prefabrication system in walls. | 2M |
| (h) What do you mean by seismic force? | 2M |
| (i) What are consequences of noise? | 2M |
| (j) List the different types of sound insulating materials. | 2M |

PART – B

(Answer all the questions: 05 X 10 = 50 Marks)

- 2 What is planning and building planning? Describe the factors affecting planning of building. 10M
- OR**
- 3 List out the parts of building planning and explain at least three among them. 10M
- 4 Describe the different types of termite treatments in details. 10M
- OR**
- 5 Discuss all the fire protection system of residential buildings. Also brief the full operational function of atleast two fire protection systems. 10M
- 6 Explain the requirements of good stair in details. 10M
- OR**
- 7 Write notes on features of : 10M
(i) escalator (ii) ramps.
- 8 Write down the characteristics of prefabrication system in the building. 10M
- OR**
- 9 Draw the components of seismic force on building. Also explain how inertial force generated on account of seismic action on buildings. 10M
- 10 Calculate the change in intensity level when the intensity of sound increases 1000 times its original intensity. 10M
- OR**
- 11 Explain the principles of acoustics of building in details. 10M
