

21N506

Roll No. _____

Total No. of Pages: **3**

21N506

B. Tech. II - Sem. (New Scheme) (Main) Exam., (Academic Session 2021- 2022)

All Branch

2FY2 – 06 Introduction to Built Environment

Common to all Branches

Time: 2 Hours

Maximum Marks: 70

Instructions to Candidates:

Part – A: Short answer questions (up to 25 words) 5×3 marks = 15 marks.
Candidates have to answer **five** questions out of **ten**.

Part – B: Analytical/Problem solving questions 3×5 marks = 15 marks.
Candidates have to answer **three** questions out of **seven**.

Part – C: Descriptive/Analytical/Problem Solving questions 2×20 marks = 40 marks.
Candidates have to answer **two** questions out of **five**.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. NIL

2. NIL

PART – A

- Q.1 What are the factors affecting built environment?
- Q.2 What do you understand by rain water harvesting?
- Q.3 Write objectives of water resources planning.
- Q.4 What are the components of smart environment?
- Q.5 What are the uses of steel in building works?

- Q.6 How are masonry works classified?
- Q.7 Write drinking water quality standards.
- Q.8 What are the criteria for the selection of material for stone masonry?
- Q.9 What are the basic requirements of a foundation?
- Q.10 Write various types of road traffic signs.

PART - B

- Q.1 What are the different modes of transport? Explain briefly.
- Q.2 Explain the components of smart cities.
- Q.3 Explain domestic and home automation with areas of practice of energy-efficient built environment.
- Q.4 What are the various basic requirements a building should satisfy in design and performance? Explain the main components of a building.
- Q.5 What are the general principles in brick masonry? Explain the different bonds used in brick masonry using neat sketches. <https://www.btubikaner.com>
- Q.6 What do you understand by traffic calming? Write road safety measures for accidents prevention.
- Q.7 Explain physical, chemical and biological characteristics of water as per Indian Standards.

PART - C

- Q.1 What is the modern world approach towards built environment? Explain in detail by giving examples.
- Q.2 Explain the types of civil engineering branches with reference to their roles in built environment.
- Q.3 Write the differences between historical architecture and modern structural design. Explain building bye-laws and their role in controlled development of built-environment?
- Q.4 What are the components of building physics? Discuss lighting and acoustics aspects of a building.

Q.5 Write short notes on any four –

- (a) Smart metering
- (b) Road safety
- (c) Energy flow in ecosystem
- (d) Green buildings
- (e) Conventional constructions
- (f) Environmental Pollution

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