

Roll No. 21509/11509

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B. Tech. I/II Sem. (Main/Back) Exam., Dec. - 2019

ESC

2FY3-09 Basic Civil Engineering

Time: 2 Hours

Maximum Marks: 80

Instructions to Candidates:

Part – A: Short answer questions (up to 25 words) 5×2 marks = 10 marks. All five questions are compulsory.

Part – B: Analytical/Problem Solving questions 4×10 marks = 40 marks. Candidates have to answer four questions out of six.

Part – C: Descriptive/Analytical/Problem Solving questions 2×15 marks = 30 marks. Candidates have to answer two questions out of three.

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

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

1. NIL

2. NIL

PART - A

- Q.1 Write two important principles of surveying. [2]
- Q.2 Define Plinth area and Floor space index. [2]
- Q.3 Mention the types of road traffic signs in India. [2]
- Q.4 What do you mean by rain water harvesting? [2]
- Q.5 Explain Green House Effect. [2]

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PART - B

- Q.1 Explain the impact of infrastructural development on economy of country with suitable examples. [10]
- Q.2 How would you make linear measurements on sloping ground? Explain with neat sketches. [10]
- Q.3 What are the important factors considered for selecting a site for buildings? [10]
- Q.4 Define transportation engineering and discuss various types of roads with their important features. [10]
- Q.5 Explain the important steps/processes of water treatment with a neat line diagram. [10]
- Q.6 What do you understand by energy recovery from solid waste? Discuss various methods of energy recovery. [10]

PART - C

- Q.1 (a) Differentiate between Whole Circle Bearing and Quadrant Bearing as well as Fore Bearing and Back Bearing. [3]
- (b) Convert following QB to WCB :- [6]
- (i) S 60° 30' W
- (ii) N 32° 20' E
- (iii) N 32° 40' W
- (c) Convert following Fore bearing to Back bearing :- [6]
- (i) 310° 45'
- (ii) 20° 30'
- (iii) S 60° 50' E
- Q.2 Define environmental pollution and explain important Environmental Acts and Regulations Prevalent in India. [15]
- Q.3 Explain noise pollution, its harmful effects and methods to control noise pollution. [15]