1E3109

Total No. of Questions : 22 Total No. of Pages : 03

Roll No. : .....

1E3109

B.Tech. I-Sem. (Main/Back) Exam. - 2024

1FY3-09 / Basic Civil Engineering

Time : 3 Hours **Maximum Marks : 70**

Instructions to Candidates :

Attempt all ten questions from Part A, five questions out of seven questions from Part B and three questions out of five questions from Part C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing 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. ..... 2. .....

PART-A

(Answer should be given upto **25** words only)

All questions are compulsory

[10x2=20]

Q.1. Discuss scope of Civil Engineering and give two objects of Civil Engineering.

Q.2. What is fore bearing and back bearing of a line?

Q.3. What are the principles of Surveying?

Q.4. Define Air Pollution and its causes.

Q.5. Define Contour.

Q.6. What do you understand by Ozone depletion?

Q.7. What are the different modes of Transportation?

Q.8. Define carpet area and plinth area.

Q.9. What is ranging in Surveying?

Q.10. Name various components of a building.

PART-B

(Analytical / Problem solving questions)

Attempt **any five** questions

[5x4=20]

Q.1. Write the difference between whole circle bearing and reduced bearing.

Q.2. Describe Rain Water Harvesting.

Q.3. What are the safety measures to avoid road accidents?

Q.4. What are the water quality standard parameters?

Q.5. A steel tape 20 meter in length used to measure a distance of 300 meters was found 10 cm long at the end of work, calculate the correct measured distance.

Q.6. What do you understand by solid waste management?

Q.7. What are the different aspects to be considered in site selection of a building?

PART-C

(Descriptive/Analytical/Problem solving/ Design questions)

Attempt **any three** questions

[3x10=30]

Q.1. Elaborate water treatment and disposal of waste water.

Q.2. The following staff readings were observed successively with a level. The instrument has been shifted after the second and fifth reading : 0.675, 1.230, 0.750, 2.565, 2.225, 1.935, 1.835, 3.220. The first reading was with staff held on bench mark of RL 100.000 m. Enter the readings in a page of level book and calculate the RL of all points. Apply arithmetic checks (by rise and fall method).

Q.3. Explain the flow of nitrogen nutrients in environmental cycle with neat sketch.

Q.4. State Building Bye-laws. Explain various types of buildings along with their functions.

Q.5. What are cumulative and compensating errors ? Also, define various types of tape corrections.

------- x -------