

III B. Tech I Semester Regular Examinations, February-2022

ELEMENTS OF CIVIL ENGINEERING

(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) What is the role of a civil engineer in infrastructural development of a country? [8M]
- b) Explain about Precise levelling and its difficulties in levelling. [7M]

(OR)

2. a) What are the effects of infrastructural facilities on socio-economic development of a country? [8M]
- b) Explain the uses of contours. Where it will be used? [7M]

UNIT-II

3. a) What are the uses of a tachemetry? [8M]
- b) Describe the methods of locating contours by direct method. [7M]

(OR)

4. a) What are the different methods used to find the elevations of the points in the case of inaccessible points? Differentiate that? [8M]
- b) What is GPS? Explain its uses in surveying. [7M]

UNIT-III

5. a) What are the different tests conducted on stones? Explain in detail with neat sketches. [8M]
- b) What are the tests to be conducted for conventional coarse aggregates? Explain any one test in detail. [7M]

(OR)

6. a) What are the various ingredients required for manufacturing cement? State their functions. [8M]
- b) Discuss various tests on bricks. [7M]

UNIT-IV

7. a) Explain the importance of building byelaws. [8M]
- b) Explain different principles used while planning a hospital in rural areas. [7M]

(OR)

8. a) What is meant by aspect, prospect, circulation and grouping? [8M]
Explain its importance.
b) Explain different standards and requirements of different parts of [7M]
a residential house.

UNIT-V

9. a) Explain the method of determination of optimum number of rain- [8M]
gauges in a catchment.
b) Explain benefits and ill effects of irrigation. [7M]

(OR)

10. a) Explain the factors affecting runoff from a catchment. [8M]
b) What is Infiltration? What are the factors affecting Infiltration? [7M]
