TCE–201

B. TECH. (SECOND SEMESTER)
MID SEMESTER
EXAMINATION, April, 2023
BASICS OF CIVIL ENGINEERING

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) Briefly give scope of different disciplines of civil engineering. (CO1)

OR

(b) What is the impact of civil engineering on the economy ? (CO1)

2. (a) Identify five best civil engineering projects with high aesthetic appeal with one possible factor for each. (CO1)

P. T. O.

OR

(b) Explain the scope for a career in civil engineering. (CO1)

3. (a) Write about the different instruments used for linear measurement. (CO2)

OR

(b) A rectangular plot was measured with a 20 m chain and its size was established as 450 × 250 m. Later, it was found that the chain used for measuring the sides of plot was 15 cm too long. What is the true area of the plot ?. (CO2)

4. (a) Write short notes on the following : (CO2)

(i) GPS

(ii) Lidar

(iii) Total station

OR

(b) Convert the following QB into WCB :

(CO2)

(i) N 15^0 35' E

(ii) S 36^0 37' E

(iii) S 44^0 43' W

(iv) N 24^0 56' W

(v) S 4^0 15' E

5. (a) Differentiate between prismatic compass and surveyor's compass. (CO2)

OR

(b) The magnetic bearing of a line AB is 110°43'. If magnetic declination is 10° 5' E, then what is the true bearing of the line AB ? If declination in the above question is 15°7' W with the same magnetic bearing, then what is the true bearing ?

(CO2)