

Reg. No. :

Question Paper Code : 61266

M.E./M.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022.

Elective

Structural Engineering

ST 5012 – DESIGN OF SUB STRUCTURES

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate between combined footings and strap footings.
2. Define – Bearing capacity of soils.
3. Write the uses of pile load test.
4. In which situations, pile foundations may be adopted?
5. Define – Grip length.
6. Differentiate between well foundations and caissons.
7. Explain Vibration isolation.
8. In what way, machine foundations differ from conventional foundations?
9. What are expansive soils?
10. Give the necessity of under reamed piles.

PART B — (5 × 13 = 65 marks)

11. (a) Explain the applications of soil investigation report in detail.

Or

- (b) Describe the procedure involved in plate load test and its uses.

