



12. (a) Draw and explain the operation of CRO in detail.

Or

(b) Explain how LVDTs are constructed, its output voltage characteristics and how null voltage of LVDTs can be improved.

13. (a) (i) Explain briefly about the construction and uses of half cell potentiometer. (8)

(ii) Write short notes on structural health monitoring. (5)

Or

(b) Describe the various types of strengthening techniques adopted for structural distress.

14. (a) Discuss in detail about Ultrasonic testing principles and its applications.

Or

(b) Explain about the following :

(i) Ultrasonic pulse echo (5)

(ii) Impact echo and GECOR. (8)

15. (a) Explain in detail about the Necessity, Advantages and Applications of Model analysis.

Or

(b) Describe in detail about the scale effect in Model analysis.

PART C — (1 × 15 = 15 marks)

16. (a) Explain the working principle and operation of pressure Transducer.

Or

(b) How will you measure the Corrosion of reinforcement in concrete and explain how to control it?