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PART – B

(5×13=65 Marks)

11. a) What is a load cell? Explain the working principle of electronic load cell.

(OR)

b) With sketches, explain the working principle of pressure gauges.

12. a) What is X-Y Plotter? Explain its working principle.

(OR)

b) Draw block diagram of digital data acquisition systems and explain the operation.

13. a) How do you assess damages? Outline the procedures.

(OR)

b) What are techniques for residual stress measurements? Explain.

14. a) With sketches, explain the working principle and limitations of Rebound hammer test.

(OR)

b) Define pulse echo testing, impact echo testing and impulse radar test.

15. a) Explain Scale effects in models.

(OR)

b) i) Explain the principle of similitude for direct model analysis. (5)

ii) What are distorted models? Explain their advantages and disadvantages. (8)

PART – C

(1×15=15 Marks)

16. a) Explain in detail about Structural health monitoring of structures.

(OR)

b) Explain in detail about applications of lasers in structural testing.