O.P.Code: 20CE1011

R20

H.T.No.

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR (AUTONOMOUS)

M.Tech I Year I Semester Regular & Supplementary Examinations February-2025 STRUCTURAL HEALTH MONITORING

(Structural Engineering)

Time: 3 Hours		Max. Marks: 60
	(Answer all Five Units $5 \times 12 = 60$ Marks)	
	UNIT-I	

1 Define Structural Health monitoring and various factors affecting the CO1 health of the structures.

OR

- 2 Define inspection of a structure and list out various stages of inspection. **CO1** L1 **12M** UNIT-II
- 3 Define Structural Health monitoring and the concept of Structural CO2 12M Health monitoring.

OR

4 Explain the concept of structural safety in alteration. CO₂ L2 12M

UNIT-III

5 Define static field testing and types of static tests. CO₃ L2 **12M**

OR

6 Describe the procedure of behavioral test and its importance. **CO3 L2** 12M

UNIT-IV

7 Define dynamic field testing and types of static tests. L2 CO₄ 12M

OR

8 Explain various dynamic loading allowances test. CO₄ L2 12M

UNIT-V

9 Explain in detail any structured case study on structural health CO5 12M monitoring.

OR

10 List out various advantages and disadvantages of piezoelectric materials. CO₅ 12M

*** END ***