

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Winter 2018 - 19 Examination

Semester: 1
Subject Code: 203209134
Subject Name: Structural Health Monitoring

Date: 13/12/2018
Time: 10:30am to 1:00pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1** A) What is Structural Health Monitoring? What is the motivation behind it? (05)
B) What are the advantages and disadvantages of SHM? (05)
C) What are the types of Static Tests? (05)
- Q.2** Answer the following questions. (Attempt any three) (Each five mark) (15)
A) What do you mean by NDT? Mention the major types of Non Destructive Tests.
B) What are the types of Dynamic Field Tests? Explain any one in detail?
C) What is ET? Explain the applications of ET
D) Explain Rebound Hammer Test.
- Q.3** A) Explain Eddy Current Testing in detail with neat sketch along with its advantages and Disadvantages. (07)
B) Explain in detail MPI along with its advantages and limitations (08)
- OR**
- B) What is Radiography? Explain in detail with examples. (08)
- Q.4** A) Explain in detail LPI along with its advantages and disadvantages (07)
- OR**
- A) Explain Ultrasonic Pulse Velocity test with a neat sketch (07)
B) What do you mean by structural audit? (08)