

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Winter 2017 - 18 Examination

Semester: 1
Subject Code: 03209130
Subject Name: Structural Health Monitoring

Date: 02/01/2018
Time: 2:00pm to 4:30pm
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 applications of SHM (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 is MPI? Mention the advantages and disadvantages of MPI
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 is NDE? What are the uses of NDE methods and when are they used? (08)