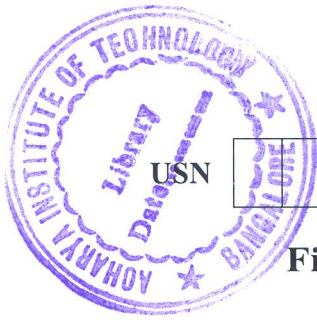


# CBCS SCHEME



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17MA553

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020

## Maintenance Engineering

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Classify the types of maintenance system and explain any two. (10 Marks)  
b. Differentiate between preventive and predictive maintenance system. (10 Marks)

OR

- 2 a. Outline the problems on selection of maintenance method. (10 Marks)  
b. List out the objectives and benefits of maintenance system. (10 Marks)

### Module-2

- 3 a. Distinguish between Repair and Replacement with suitable example. (10 Marks)  
b. Describe the scope and Effectiveness of preventive maintenance. (10 Marks)

OR

- 4 a. Discuss why it is essential to consider the economic aspects of the maintenance function. (10 Marks)  
b. Discuss the life cycle cost analysis with suitable case study. (10 Marks)

### Module-3

- 5 a. Discuss the causes of machine failure. (10 Marks)  
b. What is the need for evaluation? Discuss the benefits of maintenance evaluation. (10 Marks)

OR

- 6 a. Differentiate between short range and long range planning with an example. (10 Marks)  
b. List out any four planning technique and explain any one with suitable example/case study. (10 Marks)

### Module-4

- 7 a. Outline the analysis of accident safety standard for mechanical equipment with a suitable example. (10 Marks)  
b. Describe the analysis of accident records and accident investigations. (10 Marks)

OR

- 8 a. Classify the safety standards for electrical equipment and systems. Explain any two. (10 Marks)  
b. Outline the procedure to have safety standards for chemical hazards and exhaust systems. (10 Marks)

### Module-5

- 9 a. Discuss the features and benefits of computer Aided maintenance system. (10 Marks)  
b. List out any four computer Aided maintenance systems which can be practiced in maintenance functions. Explain any two. (10 Marks)

OR

- 10 a. Discuss on the industrial noise measurement an steps to control noise pollution. (10 Marks)  
b. Explain the following : (10 Marks)  
i) Industrial vibration and its control ii) Mechanical dust collectors.

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.