

**CERTIFICATE IN CONDITION  
MONITORING (CCOMO)  
Term-End Examination  
June, 2025**

**MET-003 : CONDITION MONITORING AND  
MAINTENANCE**

*Time : 3 Hours*

*Maximum Marks : 70*

---

**Note :** Answer any **seven** questions. All questions carry equal marks.

---

---

1. (a) Define and explain the term maintenance engineering. Also explain the objectives of maintenance management. 5
- (b) List the various functions of maintenance department. Briefly explain each *one* of them. 5

2. (a) What is maintenance planning ?  
Explain different stages involved in  
maintenance planning. 5
- (b) Discuss various types of maintenance  
strategies that are aimed to prevent the  
occurrence of failures. 5
3. Distinguish between the following :
- (a) Productive maintenance and Predictive  
maintenance 5
- (b) Planned maintenance and Scheduled  
maintenance 5
4. What is ABC Analysis ? Explain the  
step-by-step method to conduct the ABC  
Analysis. 10
5. What is Condition Based Maintenance  
(CBM) ? Also explain the benefits of CBM  
system implementations in any plant. 10
6. List out the non-destructive tests to estimate  
the condition of the equipment. Explain any  
*two* of them in detail. 10

7. (a) Describe the terms 'Trend Monitoring' and 'Condition Checking'. 5
- (b) Distinguish between condition monitoring and fault diagnosis. 5
8. Distinguish between 'Process FMEA' and 'Design FMEA'. Discuss the merits and demerits of FMEA. 10
9. What are the objectives of preventive maintenance ? Discuss the merits and demerits of preventive maintenance. 10
- 10.(a) Define the term availability. Enumerate the factors affecting the availability of the equipment. 5
- (b) Define the term maintainability. List out the factors affecting the maintainability. 5

x x x x x