

Roll No.

3798

B. Tech. 8th Semester (Mechanical Engg.)

Examination – May, 2023

PLANT MAINTENANCE ENGINEERING

Paper : PEC-ME-404-G

Time : Three Hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

1. Explain the following :

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|------------------------------|---|
| (a) Corrective Function | 5 |
| (b) Productive Maintenance | 5 |
| (c) Functions of Spare parts | 5 |

UNIT – I

2. Define the term Maintenance or Plant engineering. What are the chief activities of this department in an organization ? 15

3. Distinguish between the decentralization and delegation, with suitable examples. Do you think that decentralization is helpful in increasing the efficiency of the plant engineering department ? Discuss your answer with supporting evidences or examples, 15

UNIT – II

4. (a) Distinguish between No Maintenance technique and Operate to Failure and Corrective maintenance 8
- (b) Discuss different types of failures with suitable classification. 7
5. "Prevention is better than cure" – How do you support with reference to the plant engineering functions ? 15

UNIT – III

6. What are the principal factors affecting the location choice ? What are different types of facility location problem ? 15
7. What are the major criteria taken into consideration for placing a manufacturing firm making lighter items ? 15

UNIT – IV

8. (a) Explain V-E-D, C-I-N and V-E-I-N analyses, Discuss their relevance to the maintenance department. 8
- (b) Enumerate the factors leading to a high failure rate in non-standard items. 7
9. What is codification ? What is its significance in maintenance spare parts management ? What are the advantages of codification ? 15
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