Total No. of Questions : 8]

SEAT No. :

PC-1747

[Total No. of Pages : 2

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T.E. (Electrical)
ELECTRICAL INSTALLATION, DESIGN AND CONDITION BASED MAINTENANCE
(2019 Pattern) (Semester - I) (303144)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.***
2) ***Figures to the right in dicate full marks.***
3) ***Neat diagram must be drawn wherever necessary.***
4) ***Assume suitable data if necessary.***

Q1) a) Explain Motor Current Signature Analysis(MCSA) with suitable diagrams. **[8]**

b) Compare breakdown maintenance & preventive maintenance. **[4]**

c) List and explain the various advance tools and techniques of condition monitoring. **[6]**

OR

Q2) a) What are different types of maintenance strategies? Explain anyone. **[4]**

b) Explain following Terms: **[6]**

i) Role of thermography in electric field

ii) State the basic causes of insulation degradation

c) Explain Preventive maintenance of transformer. **[8]**

Q3) a) Compare quotation & tender. **[3]**

b) Write short notes on the following: **[6]**

i) Schedule of rates

ii) Labour rates

P.T.O.

c) What are the qualities of good estimator? **[8]**

OR

Q4) a) Write short notes on Price catalogue. **[3]**

b) What are the essentials of estimating and costing? **[6]**

c) Which data is required by estimator for preparing estimation of LT electrical wiring project of a 2 floor bunglow. **[8]**

Q5) a) Write short note on Minimum permissible size of the conductor. **[4]**

b) How to determine size of conductor for lines? **[6]**

c) Explain various residential wiring methods. **[8]**

OR

Q6) a) Explain the procedure of installation of underground LT service line. **[8]**

b) Write short notes on the following: **[6]**

i) Current carrying capacity

ii) Voltage drop

c) Write down all rules for residential wiring work. **[4]**

Q7) a) Explain four CAT ratings with respect to information, examples & measurements involved. **[8]**

b) List the different methods for earth testing. Explain any one method in detail with suitable diagram. **[9]**

OR

Q8) a) How electrical accidents can be avoided? **[8]**

b) Enumerate the danger arising out of faulty equipment with appropriate examples. **[9]**