

B.E. Sixth Semester (Electrical Engineering (Electronics & Power))
(Electronics Engineering) (CGS)

10394 : Elective - II : Electrical Estimating & Costing

6 FEED 05 / 6 FEEX 5 / 6FEEL 5

P. Pages : 2

Time : Three Hours



AU - 2765

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
 2. Answer **three** question from Section A and **three** question from Section B.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Assume suitable data wherever necessary.
 5. Diagrams and chemical equations should be given wherever necessary.
 6. Illustrate your answer necessary with the help of neat sketches.
 7. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION - A

- | | | | |
|----|----|--|---|
| 1. | a) | Classify electrical drawings according to purpose. State the importance of reading of electrical engineering drawings. | 7 |
| | b) | What is MCB? Compare MCB with ordinary fuse. | 4 |
| | c) | State I.E. Rule 29. State the various points which are to be earthed accordance with I.E. Rule - 90. | 3 |

OR

- | | | | |
|----|----|--|---|
| 2. | a) | What do you mean by sub-circuit? Explain different types of sub-circuits in electrical installation. | 7 |
| | b) | Define service connection compare overhead and underground service connection. | 7 |
| 3. | a) | State the procedure in steps to design the circuits and deciding the number of circuits. | 7 |
| | b) | What factors should be considered for selection of conductor size? | 6 |

OR

- | | | | |
|----|----|---|---|
| 4. | a) | State the sequence to be followed for preparing estimate of Residential building electrification. | 7 |
| | b) | Write short notes on:
i) Systems of wiring.
ii) Earth leakage circuit breaker. | 6 |
| 5. | a) | Define Busbar draw and label the diagram showing its arrangement and explain it. | 7 |
| | b) | State the important design considerations in commercial wiring installation. | 6 |

OR

6. a) What are the different types of earthings? Explain plate type earthing. What is the necessity of earthing? 7
- b) What are the different types of protective switchgears for residential installations? Explain any one. 6

SECTION – B

7. a) A 45 kW motor is drawing 30 kW of power at a given point of time. Calculate the motor loading at full load if the efficiency of the motor is 90%. 4
- b) Draw and label single line diagram for 3 ϕ induction motor connected to supply with star-delta starter. 7
- c) How the fuse rating and starter are decided in factory unit. 3

OR

8. a) State the sequence to be followed to prepare estimate for a factory installation. 7
- b) Explain the important points to be kept in view while carrying out wiring for a motor installation. 7
9. a) Differentiate between feeder, distributor and service mains. 7
- b) Write short notes on the following. 6
- i) Radial system of distribution.
- ii) Ring main system of distribution.

OR

10. a) What are the tests to be performed under the Indian Electricity rules on any installation before switching ON the supply Explain. 7
- b) Why is the neutral essential in three phase four wire distribution system? What is it earthed? What are the advantages of neutral earthing. 6
11. a) What is a tender? Explain the procedure of opening tender documents. 7
- b) State and explain various stages involved in the execution of work. 6

OR

12. a) Mention the types of contracts. Explain any one. 7
- b) With reference to tender, explain the meaning of 6
- i) Estimated cost.
- ii) Earnest money.
- iii) Security deposit.
- iv) Time limit.
