

**BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)**

**B.Tech.Sem - V ELECTRICAL : : SUMMER - 2022**

**SUBJECT : ELECTRICAL ESTIMATION, COSTING & INSTALLATION**

Day : Thursday

Date : 2/6/2022

Time : 10:00 AM-01:00 PM

Max. Marks : 60

**S-13318-2022**

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Assume suitable data **WHEREVER** necessary.
- 3) Figures to the right indicate **FULL** marks.

- Q.1** a) Write a note on concept of contracts and tenders. (05)  
b) Write down different requirements of valid contract. (05)

**OR**

- Q.1** a) Write a note on I.E. rules related to electrical installation. (05)  
b) What do you mean by tender notice, explain. (05)

- Q.2** a) Write a note on concept of service connections. (05)  
b) Discuss methods of installation of service connections. (05)

**OR**

- Q.2** a) Differentiate between underground and overhead service connections. (05)  
b) Write a note on cable joints with stepwise procedure. (05)

- Q.3** a) Describe detailed procedure to calculate total electric load in the residential installation. (05)  
b) Describe selection of rating of different wiring accessories in case of residential wiring project. (05)

**OR**

- Q.3** a) Explain in brief about general guidelines and rules for residential electrification. (05)  
b) Write a note on total estimation and costing of overall residential installation with material & labour. (05)

- Q.4** a) Differentiate between Residential and commercial installation. (05)  
b) What are different types of cables used in case of commercial installation? Mention its ratings. (05)

**OR**

- Q.4** a) How do you decide number of lighting and power sub – circuits as per IE rules. (05)  
b) Describe proper method of earthing in case commercial installation. (05)

- Q.5** a) Explain what do you understand by concept of motor wiring circuit and single line diagram. (05)  
b) Discuss design considerations of electrical installations in Industry / factory / workshops. (05)

**OR**

- Q.5** a) Explain guidelines about power wiring and motor wiring. (05)  
b) Describe method of machine current calculations followed by selections of size of wire or cable. (05)

- Q.6** a) Explain need of maintenance along with the types of maintenance. (05)  
b) Write a note on maintenance strategy. (05)

**OR**

- Q.6** a) Explain what do you mean by condition monitoring of electrical system. (05)  
b) Write a note on Breakdown maintenance . (05)