

B.TECH. SEM -V ELECTRICAL 2014 COURSE (CBCS) :
SUMMER - 2018
SUBJECT: ELECTRICAL ESTIMATION, COSTING & INSTALLATION

Day: **Thursday**
Date: **24/05/2018**

S-2018-2345

Time: **10.00 AM TO 01.00 PM**
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Use of non programmable **CALCULATOR** is allowed.
- 4) Assume suitable data if necessary.

- Q.1** a) State any five IE rules related to Electrical installations. (05)
b) State the information required about a contractor for assigning work in him. (05)

OR

- a) Discuss any five types of a contract. (05)
- b) Discuss terms and conditions that must be followed while submitting a quotation. (05)

- Q.2** a) Explain concept of service connection along with its features. (05)
b) Explain types of service connection. (05)

OR

- a) With the help of a neat diagram, describe any one method of installation of a service connection. (05)
- b) Compare overhead and underground service connections. (05)

- Q.3** a) How is load calculated and how is the size of conductor is decided in residential installation? (05)
b) State general rules and guidelines for installation of residential electrification. (05)

OR

- a) How is selection of rating of main switch and distribution board done in residential building installation? (05)
- b) State sequence to be followed for preparing estimate of residential building electrification. (05)

- Q.4** a) State difference between residential and commercial installations. (05)
b) Explain general requirements and selection factors for commercial installation. (05)

OR

- a) Explain load calculation and selection of size of service connection in commercial installation. (05)
- b) How to decide number of lighting and power sub-circuits in commercial installation? (05)

- Q.5** a) List sequence to followed to prepare estimation of industrial installation. (05)
b) State procedure to calculate motor current in any industrial installation. (05)

OR

- a) How are selection of size and rating of cable done in industrial installation? (05)
- b) Draw a single line diagram for 3ϕ induction motor connected to supply with star- delta starter. (05)

- Q.6** a) Write a note on advanced tools and techniques of condition monitoring. (05)
b) What is preventive maintenance? (05)

OR

- a) What is meant by breakdown maintenance? (05)
- b) What is the need of maintenance in electrical installations? (05)