

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY.**  
**LONERE – RAIGAD -402 103**  
**Semester Examination – December - 2019**

**Branch: Electrical Engineering**

**Sem.:- IV**

**Subject with Subject Code:- Electrical Installation and Estimation Marks: 60**  
**BTEEC403**

**Date:- 20/05/2019**

**Time:- 3 Hr.**

**Instructions to the Students**

1. Each question carries 12 marks.
2. Attempt **any five** questions of the following.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly

**(Marks)**

**Q.1.a) What are the prominent factors considered while preparing an estimate?**

**(4)**

**b) What is the permissible voltage drops for Industrial and domestic load**

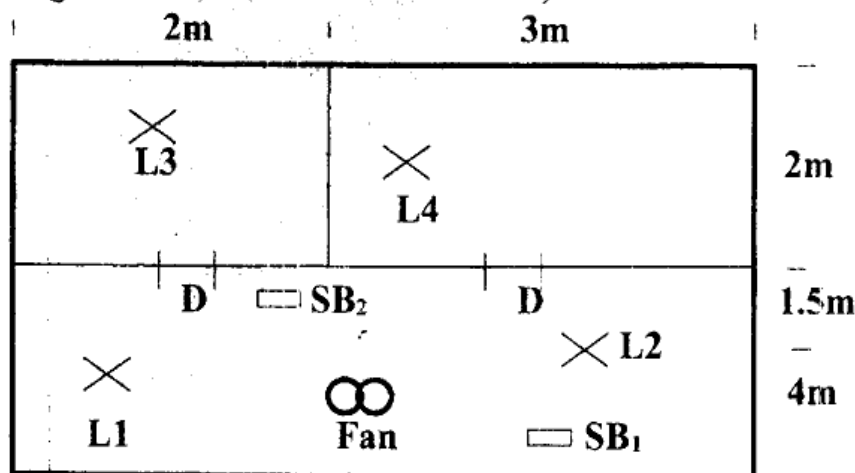
**(4)**

**c) Explain the importance of prize catalogue**

**(4)**

**Q2a) Figure below shows three rooms along with electrical accessories**

**Number of lights:- 04 ,Number of Fan: - 01 ,Number of switch Boards:- 02**



**Typical House Plan (D represents Door)**

**a) Device number of Sub Circuits**

- b) Calculate length and size of wire
- c) Prepare an Estimate including the quantity of material, its cost and labour charges (9)

b) Explain the specification of Tube light and Electric heater (3)

Q3) a) Explain the typical Tendering process along with comparative Statements (4)

b) What are the objectives of purchase department (4)

c) Enlist the advantages of Centralised and De-centralised purchasing process (4)

Q.4.a) Explain the arrangement of single bus -bar type of substation (6)

b) Explain different types of switches used in Electrical Installations (4)

c) What are the materials used in Insulations (2)

Q5) a) Explain different types of

i) Screwdrivers      ii) Pliers      iii) Wrench and blowlamps (6)

b) What are the Instruments used in measurement for a residential substation of 11 KV , having load 80 KVA, also suggest their ratings

Q6) a) Explain: Cleat type, Casing type , Conduit type and Metal Sheath wiring (6)

b) Explain the wiring diagram for AC motor control along with its protection circuit (6)

END