Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **15EE2026** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ELECTRICAL ESTIMATION AND COSTING** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | C:\Users\Admin\AppData\Local\Microsoft\Windows\INetCache\Content.Word\1.jpgThe plan of a small flat is shown. The flat is to be provided with electrical connections. The position of light and fan points and switchboards have been indicated.   1. Decide the number of sub-circuits and show these in the installation plan. 2. Calculate the size and length of wire required for wiring the installation. 3. Estimate the quantity of material, its cost and labour cost fpr teak wood batten wiring system. (Assume the cost of material and labour suitably) | CO3 | 20 |
| **(OR)** | | | | |
| 2. | a. | Three light points in a room uniformly spaced, each controlled by one way switch, are to be wired. All switches are to be placed on one switch board. Draw the following:   1. Schematic diagram 2. Wiring diagram in multiline representation 3. Wiring diagram in Single line representation 4. Wiring diagram in joint box system | CO3 | 14 |
| b. | C:\Users\Admin\AppData\Local\Microsoft\Windows\INetCacheContent.Word\q.jpgFor the wiring diagram shown, draw.  i) Circuit diagram  ii) Single line diagram | CO3 | 6 |
|  |  |  |  |  |
| 3. | a. | Describe in detail the various systems of domestic and industrial wiring. | CO3 | 14 |
| b. | Mention three methods of determination of labour cost. | CO3 | 6 |
| **(OR)** | | | | |
| 4. | a. | With neat diagram, explain the system of supply. Also, list down the advantages and disadvantages of each system. | CO3 | 14 |
| b. | Write about:   1. Contingencies 2. Overhead charges 3. Profit | CO4 | 6 |
| 5. |  | With necessary diagrams, explain the various methods of installation of sevice connections. | CO3 | 20 |
| **(OR)** | | | | |
| 6. | a. | Mention the procedure for electrification of factory unit installation | CO3 | 14 |
| b. | List down the main points to be considered while selecting a particular type of wiring. | CO1 | 6 |
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| 7. |  | With a simple example explain the procedure in steps for estimating and costing of material for residential buildings. | CO3 | 20 |
| **(OR)** | | | | |
| 8. | a. | Briefly write about the inspection of internal wiring of installations. | CO3 | 10 |
| b. | With neat diagram, explain the insulation test between conductors. | CO2 | 10 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Discuss the importance of earthing. Mention the components of earthing system. | CO2 | 8 |
| b. | With necessary diagrams, explain the various types of earthing. | CO2 | 12 |