**ELECTRICAL INSTALLATION AND ESTIMATION**

1. Two mark question
2. Explain why fuse must be used in phase only and not in neutral wire?
3. Classify the cable according to voltage grading?
4. Compare CTS/TRS wiring with surface conduit?
5. Write any three general rule while preparing internal wiring estimation?
6. Calculate the size of cable for the given 3-phase 7.5HP,400v induction motor?
7. List the type of service mains?
8. Draw the single line diagram of 11kv/400v distribution transformer substation?
9. State the factor on which earth resistance depends?
10. Draw the wiring diagram of stair case wiring?
11. Calculate the number of poles and insulators required for 1.5km length head LT line?
12. Write the classification of earthing system based on application?
13. What is the function of cross arm in an overhead transmission line?
14. Draw the layout of house wiring?
15. How many maximum point and load connected in a single circuit in case of internal wiring?
16. 5-10 mark question
17. Draw the wiring and estimate the quantity of material for surface conduit wiring system in a house below. assume missing data, if any



1. Two 3 phase 400v induction motor are installed in a workshop(plan is shown below).prepare the list of material required for the power wiring installation. Assume missing data if any?



1. Estimate the quantity of material required for an 11kv,3 phase OH line with 7/2.59 mm ACSR conductor for 1km long on 8m pscc poles. The span between two poles is 75m?
2. Estimate the material required for pipe earthing?
3. Explain types of internal wiring?
4. Estimate the quantity of material for a pole mounted 150kva,11kv/400v substation?
5. Prepare a list of material and estimate the cost of giving service line connection to double story building having 3-4 rooms and 2 single phase energy meter. The load in house consist of 3 light/fan/5 amp sub circuit and two 15 amp sub circuit for heater/geyser` the supply is to be given from overhead line pole 20m away from bulding,