This document is a part of Main Course File	Document No.: CFM – 8

SARDAR VALLABHBHAI PATEL EDUCATION SOCIETY MANAGED

N. G. PATEL POLYTECHNIC

ELECTRICAL ENGINEERING DEPARTMENT

ASSIGNMENTS

Course Name (With Code): Electrical ,Wiring, Estimating, Costing And Contracting(4340903)

Semester / Year: Fourth/Second

Assignment Number: 1

Assignment CO Number:4340903.1

Sr. No.	Questions related to Course Outcomes
Part – A	**Questions carrying 3 Marks**
1	Give name of safety accessories and explain any two.
2	Explain circuit continuity test in detail.
3	Draw and Explain Stair case wiring and Godown wiring connection
4	Write the various tools used for Domestic wiring with its application
5	State the advantages of PVC wire.
Part – B	**Questions carrying 4 Marks**
1	Explain looping system of wiring connection.
2	Give Classification of different types of accessories used in wiring.
3	State the factors consider for selection of wiring.
4	Draw and Explain connection and master ON/OFF control.
5	State types of wiring and explain all in details.
Part – C	**Questions carrying 7 Marks**
1	List different test to be carried for domestic wiring installation and explain any two in detail.
2	Give comparison of different types of wiring.
3	State the IE Rules pertaining to domestic wiring.

Prepared By :Mr. Nikunj G.Mistry	Signature of Head of Department

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Semester / Year: Fourth/Second

Assignment Number: 2

Assignment CO Number:4340903.2

Sr. No.	Questions related to Course Outcomes
Part – A	**Questions carrying 3 Marks**
1	Write characteristics of good estimator.
2	Explain "item rate contract".
3	Explain overhead charges in Details.
4	State the factor affecting Scientific Estimation.
5	Write down effect of working condition on labour cost.
Part – B	**Questions carrying 4 Marks**
1	Explain the functions of Purchase committee.
2	Explain inquiry based purchase procedure.
3	List standard purchase procedure, explain any one in detail.
4	Compare between approximate and scientific estimation.
5	Prepare inquiry based Purchase procedure of (1) 6 Nos ICTP switch (2) 6 Nos Switch (one way).
Part – C	**Questions carrying 7 Marks**
1	Explain different types of contract in details.
2	Explain EMD and Security Deposit
3	Define Tender and explain procedure of passing Tender.

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Semester / Year: Fourth/Second

Assignment Number: 3

Assignment CO Number:4340903.3

Sr. No.	Questions related to Course Outcomes
Part – A	**Questions carrying 3 Marks**
1	Give the differences between MCB and ELCB.
2	List general rules for domestic wiring estimation.
3	Write down steps to estimate domestic wiring
4	State the IE rules pertaining Sub-circuit.
5	What is the value of starting current for 3 H.P motor & which starter should be used?
Part – B	**Questions carrying 4 Marks**
1	Explain salient features of industrial wiring.
2	Install 1 lamp , 2 tube light, 2 ceiling fan, one 5 amp socket in 4 X 4 X 4 Drawing hall. Calculate current and draw wiring diagram.
3	Calculate the full load & starting current of 5 HP, 3 phase induction motor and select wire size. Assume power factor 0.87 and efficiency 86%.
4	Install three lamps, two tube light, two ceiling fan, one 15 Amp socket in 4 x4x 4 meter drawing hall. Calculate current and draw wiring diagram
Part – C	**Questions carrying 7 Marks**
1	Calculate no. of power sub circuits and light fan sub circuits required for house with single phase connection and 6 nos. fan, 6 nos. socket of 5amp.7 nos. tube lights, 1 no. 1.5 ton AC,1 no. washing machine and 2 no. electric geyser. Also calculate full load current.
2	For installation of a 3 phase, 15 H.P.I.M., 415 V, calculate full load current, mention starting current, size of switch- fuse, size of cable to be selected, size of earth wire to be selected and also select type of starter.

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ASSIGNMENTS

Course Name (With Code):Electrical ,Wiring, Estimating, Costing And Contracting(4340903)

Semester / Year: Fourth/Second

Assignment Number: 4

Assignment CO Number:4340903.4

Sr. No.	Questions related to Course Outcomes
Part – A	**Questions carrying 3 Marks**
1	Explain Smoke detection system.
2	Explain Fire alarm system.
3	Explain about bus-bar and bus-bar chamber.
4	Explain construction of panel board
5	List only the different types of installation in hotels.
Part – B	**Questions carrying 4 Marks**
1	List the factors to be considered for selecting the wiring system for multistoried building.
2	Draw wiring diagram of multistoried building by tree system.
3	Compare Electrification of Residential building and Multi – storied building
4	Clarify the statement "An approval from electrical inspector is necessary before giving supply to newly constructed BIG BAZAR complex".
Part – C	**Questions carrying 7 Marks**
1	Write short note on "Load calculation for lifts, escalators and air conditioners in the large installation of multi-storied (high rise) building".
2	In a three storied hostel building, there are total 50 lights, 15 fans, 11 plug point (5 Amp) on each floor. Find (1) load on each floor (2) Total load of installation (3) Number of sub circuit on each floor (4) Size of main switch (5) Size of main switch on each floor (6) Size of DB. Use 415V, 3-phase supply

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Semester / Year: Fourth/Second

Assignment Number: 5

Assignment CO Number:4340903.5

Sr. No.	Questions related to Course Outcomes
Part – A	**Questions carrying 3 Marks**
1	Draw the figure of anchor stay or guy wire.
2	Draw layout of underground distribution system.
3	Enlist reason for failure of line insulators
4	List material required for 3-φ, 4 wire underground distribution line.
5	Draw the neat sketch of the overhead service connection by Weather proof cable.
Part – B	**Questions carrying 4 Marks**
1	State IE rules pertaining to service connection.
2	Prepare list of materials required for 415 volt, 3-phase,4 wire overhead distribution line with necessary specification.
3	Define service connection and State the different types of service connection explain any one in detail.
4	Compare overhead distribution and underground distribution.
5	Explain different line supports used in overhead transmission and distribution lines with their properties.
Part – C	**Questions carrying 7 Marks**
1	One 400 V, 3 phase, 4 wire, 50 Hz, 10 KVA overhead distribution line is 1KM ling, take 60 meter span between two poles and prepare cost estimation for the required material. Assume 0.8 lag power factor.
2	One factory having load of 20kw at 440v, 3 phase, 4 wire system of supply. It is to be provided with underground service connection. The distance between service pole and factory is 20m. Estimate the material required and the total cost of underground service connection.

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