Industrial Electrician SSC–II
SECTION – A (Marks 06)
Time allowed: 10 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. **Do not use lead pencil.**

Q.1 **Fill the relevant bubble for each part. All parts carry one mark.**

(1) According to electricity rule, this voltage higher is called "high voltage":
  A. 220 V ◯ B. 440 V ◯
  C. 650 V ◯ D. 1100 V ◯

(2) The most valuable tool used by the estimators for electrical estimation is:
  A. Tape measure ◯ B. Map measure ◯
  C. Architect scale ◯ D. Tally ◯

(3) In a three phase system we have minimum conductors:
  A. 2 ◯ B. 3 ◯
  C. 4 ◯ D. 5 ◯

(4) Earthing of electrical equipment is necessary for the protection against:
  A. Overloading ◯
  B. Voltage fluctuation ◯
  C. Danger of electric shock ◯
  D. High Conductor Temperature ◯

(5) A wattmeter is an instrument used to measure:
  A. Current ◯ B. Resistance ◯
  C. Power ◯ D. Continuity ◯

(6) A Megger is an instrument used to measure:
  A. Insulation resistance ◯ B. Leakage current ◯
  C. Flux ◯ D. Conductance ◯

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Federal Board SSC-II Examination
Industrial Electrician
(Curriculum 2021)

Time allowed: 2.00 hours   Total Marks: 24

Note: Answer any seven parts from Section 'B' and attempt any two questions from Section
        'C' on the separately provided answer book. Write your answers neatly and legibly.

SECTION – B (Marks 14)

Q.2   Attempt any **SEVEN** parts from the following. All parts carry equal marks. Be brief
        and to the point. $(7 \times 2 = 14)$

        i.   When Pakistan electricity rules were imposed and to which these are applicable?

        ii.   Describe electrical wiring diagram.

        iii.   What is meant by load calculation?

        iv.   What is Meggar?

        v.   Define fuse.

        vi.   Write two differences between HBC and MCB.

        vii.   Explain interpretation of drawing.

        viii.   Differentiate between ammeter and voltmeter.

        ix.   Define breaking capacity of circuit breaker.

        x.   Explain causes of faults in wiring.

SECTION – C (Marks 10)

Note: Attempt any **TWO** questions. All questions carry equal marks. $(2 \times 5 = 10)$

Q. 3   Calculate (a) Material cost estimation (b) Labour cost estimation.

Q. 4   Explain 3-phase industrial wiring.

Q. 5   How earth provides protection against electric shock? explain with the help of neat sketch.

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