Total No. of Printed Pages—4

19/VC/EL

2019

ELECTRONICS

(Vocational Course)

Full Marks : 30

Time : 1 hour

The figures in the margin indicate full marks for the questions

1. Choose the correct answer : 1×8=8

(a) Which one of the following semiconductor materials used in photovoltaic cell?

(i) Silicon

(ii) Copper

(iii) Germanium

(iv) Gold

(b) Which part of the transformer provides a controlled path for the magnetic flux?

(i) Core

(ii) Primary winding

(iii) Secondary winding

(iv) Enclosure

(c) Electric iron heating elements is made from

(i) copper

(ii) aluminium

(iii) MS sheet

(iv) Nichrome wire

(d) Which one of the following is not an electric bell?

(i) Single-stroke bell

(ii) Starfish desk bell

(iii) Vibrating

(iv) Buzzer

(e) Fuse is always connected in _____ wire.

(i) neutral

(ii) phase

(iii) earth

(iv) None of the above

(f) _____ is not the type of transformer according to its construction.

(i) Autotransformer

(ii) Core-type transformer

(iii) Shell-type transformer

(iv) Berry-type distributed core transformer

(g) The SI unit of current is

(i) columb

(ii) ohm

(iii) ampere

(iv) volt

(h) Ebonite handle belongs to _____ type of electrical appliance.

(i) electric geyser

(ii) electric water heater

(iii) electric iron

(iv) None of the above

2. Answer in *1* word or *1* sentence each (any *four*) : 1×4=4

(a) What is an inverter?

(b) What is the function of secondary winding in transformer?

(c) What do you mean by billing?

(d) What is the function of asbestos sheet in electric iron?

(e) Write the full form of MCB.

(f) What is fluorescent tube?

3. Answer the following questions in *3* or *4* sentences each (any *three*) : 2×3=6

(a) What is a solar cell?

(b) Define earthing. What are the types of earthing?

(c) What are the advantages of choke in tube light?

(d) State the working principle of a transformer.

(e) Name the different types of electric iron.

4. Answer the following essay-type questions (any *three*) : 4×3=12

(a) Explain with block diagram and connection diagram of DC power supply.

(b) Explain with diagram the working principle and applications of a transformer.

(c) Describe a full-wave bridge rectifier with filter.

(d) Explain the parts and functions of electric iron.

(e) State the working principle of single-phase motor and draw the circuit diagram of all single-phase motors.

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