

Q.15 Draw the symbols for

- a) Connecting wires b) Fuse
 - c) Earth d) Ammeter
 - e) Bell

Q.16 Write the general wiring condition as per IE rules for the "Domestic heating and cooking appliances".

Q.17 What is plate earthing? Write its application.

Q.18 Write the name of various faults, which may occur in earthing. Write the causes and remedies for any two faults.

SECTION-D

Note: Long answer type questions. Attempt any one question out of two questions. (1x10=10)

Q.19 What are the various types of drawing used for electrical wiring? Explain in detail.

Q.20 Write in brief about

- a) PCB designing
 - b) C.T.S. / T.R.S. wiring

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Roll No.

**Level 4 / 1st. Sem. / DVOC
(Ref. & Air Cond., Medical Imaging Tech.,
Auto Servicing, ITM, PT, AMT, EMS)**

Subject : Engineering Science

Time : 2 Hrs.

M.M. : 50

SECTION-A

Note: Multiple choice questions. All questions are compulsory (5x1=5)

Q.1 Which of the following is not the purpose of flux in brazing?

- a) Promoting wetting properties
 - b) Chemically cleaning the metal
 - c) Increasing the weight of brazed joint
 - d) Shielding from the atmosphere

Q.2 Resistances can be measured with the help of a

- a) Wattmeter
 - b) voltmeter
 - c) ammeter
 - d) ohmmeter
 - e) all of the above

Q.3 Grooves in cleat wiring are made of

- a) Porcelain
 - b) Copper
 - c) Glass
 - d) Steel

Q.4 Which among these is a circuit Breaker

- a) Fuse
- b) MCB
- c) Both a & b
- d) None of these

Q.5 Plate earthing is more effective than pipe earthing

- a) True
- b) False

SECTION-B

Note: Objective type questions. All questions are compulsory. $(5 \times 1 = 5)$

Q.6 Electronic components are often joined by

- a) Adhesive
- b) Soldering
- c) Brazing
- d) Spot welding

Q.7 The resistance in the circuit of the moving coil of a dynamometer should be _____

- a) Zero
- b) Low
- c) High
- d) None of the above

Q.8 A fuse is provided in an electric circuit for

- a) safeguarding the installation against heavy current
- b) reducing the current flowing in the circuit
- c) reducing the power consumption
- d) all of the above

Q.9 _____ wiring is recommended only for temporary installations.

- a) Cleat
- b) CTS/RTS
- c) Metal
- d) PVC conduit or PVC capping

Q.10 The faults which are likely to occur in cable is/are

- a) Breakdown of cable insulation
- b) Short circuit fault
- c) Open circuit fault
- d) All the above

SECTION-C

Note: Long answer type questions. Attempt any six questions out of eight questions. $(6 \times 5 = 30)$

Q.11 Write the characteristics of a good soldering joint.

Q.12 Write the name of various faults, which may occur in soldering. Write the causes and remedies for any two faults

Q.13 What is Ohm meter? Write its Principle of working.

Q.14 Write the various factors, which affect the selection of wiring.