

- Q.14 Draw the symbols for
- Open Switch
  - Closed push switch
  - Junction of conductors
  - Transformer
  - Closed switch

Q.15 Write in brief about concealed wiring

Q.16 What is flux? Write its uses

Q.17 What is pipe earthing? Write its procedure.

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 questions out of two questions. (1x10=10)

Q.19 What are the basic concepts of household wiring and explain?

Q.20 What is Megger? Write in detail about its construction and working Principle.

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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 The purpose of applying flux in soldering and brazing is

- Speed the process
- Reduce the temperature of processing
- Dissolve oxides
- Clear defects

Q.2 An ammeter is a.....instrument

- Secure instrument
- Absolute instrument
- Recording instrument
- Integrating instrument

Q.3 In our home, the electrical appliances are connected in.....

- In parallel with the source only if it is a

- higher power appliance
- b) In parallel with the source
  - c) Some in series and some in parallel with the source
  - d) In series with the source
- Q.4 The types of internal wiring used in domestic installations are
- a) Cleat wiring
  - b) CTS / RTS wiring
  - c) Metal / PVC conduit wiring
  - d) All of the above
- Q.5 Earthing is used to prevent shocks.
- a) True
  - b) False

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (5x1=5)

- Q.6 Solder is an alloy of
- a. Tin and carbon
  - b. Tin and lead
  - c. Lead and steel
  - d. Copper and steel
- Q.7 An induction wattmeter can be used for.....
- a. D.C. only
  - b. A.C. only
  - c. both D.C. and A.C.
  - d. None of these

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- Q.8 In house wiring, black and green wires indicate
- a. Earth and neutral respectively
  - b. Phase and neutral activity
  - c. Phase and earth respectively
  - d. Neutral and earth respectively
- Q.9 The type of wiring depends on\_\_\_\_\_
- a. Location and consumers budget
  - b. Durability and cost
  - c. Safety and appearances
  - d. All of the above
- Q.10 When a conductor is buried in the earth for an electrical earthing system, it is known as\_\_\_\_\_
- a. Earth Electrode
  - b. Conductor earthing
  - c. Conductor burring
  - d. None of these

### SECTION-C

**Note:** Short answer type questions. Attempt any six questions out of eight questions. (6x5=30)

- Q.11 Write the advantages (any three) and disadvantages (any two) of soldering
- Q.12 What is etching? Explain its type.
- Q.13 What is induction type energy meter? Write its application.

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