

## **SECTION-D**

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

- Q.19 Discuss in detail, the various types of PCBs. Give comparison in manufacturing these PCBs. Also mention the application of various types of PCBs.
- Q.20 Explain the various soldering and desoldering stations. Discuss the various specifications of station in detail. Also mention safety precautions to be taken during working on station.

No. of Printed Pages : 4

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**1st Sem / DVOC (Ref. & Air Cond.)**  
**Subject : Soldering & Desoldering of Components - I**

Time : 2 Hrs.

M.M. : 50

## **SECTION-A**

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

- Q.1 Solder which is used for joining metal pieces is an alloy of
- a) iron and lead
  - b) tin and lead
  - c) zinc and iron
  - d) tin and zinc
- Q.2 Out of following, identify the wrong type of soldering joint.
- a) Butt joint
  - b) Lap joint
  - c) Scarf joint
  - d) Twisted joint
- Q.3 Which of the following is not a type of PCB?
- a) Single Layered
  - b) Double Layered

- c) Flexible Layered    d) Multi Layered

Q.4 What is the range of working temperature for soldering process?

- a)  $15^{\circ}$  -  $50^{\circ}$  C                  b)  $70^{\circ}$  -  $100^{\circ}$  C  
c)  $180^{\circ}$  -  $250^{\circ}$  C                  d)  $300^{\circ}$  -  $500^{\circ}$  C

Q.5 The main functions of Flux in soldering process is to \_\_\_\_\_

- a) keep the surface clean and oxide free  
b) increase melting point  
c) ensure proper texture  
d) reduce temperature

### SECTION-B

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

Q.6 What do you mean by soldering?

Q.7 Name different types of soldering tips.

Q.8 Name different types of defects arises in PCB manufacturing.

(2)

188431

Q.9 Give two applications of single layered PCB.

Q.10 Name any two different types of Soldering techniques.

### SECTION-C

**Note:** Short answer questions. Attempt any six questions out of Eight questions.  $(6 \times 5 = 30)$

Q.11 Discuss the various types of soldering guns?

Q.12 Discuss the basic steps involved in soldering a component on PCB.

Q.13 What are the benefits of flux usage in soldering process.

Q.14 Discuss the basic steps involved in de-soldering a component on PCB.

Q.15 Discuss the various soldering materials used along with their grading.

Q.16 What are the properties of soldering material?

Q.17 Discuss the de-soldering process using pump.

Q.18 Write a short note on SMD PCBs.

(3)

188431