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188454

**Level 5, 1st Sem / (DVOC) Ref and Air cond.  
Medical Imaging Tech**

**Subject : Soldering & De-soldering components &  
Emergency actions**

Time : 2 Hrs.

M.M. : 50

**SECTION-A**

**Note:** Very short answer type questions. All questions are compulsory. (10x1=10)

- Q.1 SMD components in bulk are mounted on PCB using\_\_\_\_\_
- Q.2 Name the solvent used for cleaning of a PCB.
- Q.3 In SMD IC packages, the full form of DIP is\_\_\_\_\_
- Q.4 Approximately how many number of gates are incorporated in SSI?
- Q.5 The number '105' on the body of a chip resistor show its resistance value equal to \_\_\_\_\_
- Q.6 Slide switches are used in electrical and \_\_\_\_\_ equipments where switching range is limited and economizing is important.

- Q.7 A description of the \_\_\_\_\_ system to be used to notify employees to evacuate and / or take other actions.
- Q.8 Write the prime use of flux in soldering.
- Q.9 Name any one type of IC package.
- Q.10 Name any two medical services required in PCB soldering section.

### SECTION-B

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

- Q.11 Define SMD components. How will you identify the value of SMD resistor?
- Q.12 Write the steps of solder the SMD components on PCB.
- Q.13 Explain identification of any defect / dry solder / short circuit on the given circuit board.
- Q.14 Name different SMD soldering techniques. Also, explain any one soldering technique.

- Q.15 Write the safety precautions during the SMD soldering and de-soldering.
- Q.16 What are crimping tools? What are its types? How they are used?
- Q.17 Describe with diagram the primary and secondary evacuation routes in an assembly area.
- Q.18 What are the minimum requirements for an emergency action plan?

### SECTION-C

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

- Q.19 What are different packages for SMD ICs? What necessary settings are required on SMD soldering and de-soldering for various ICs of different packages using crimping tool?
- Q.20 Write short notes on :
- i) Reliable soldering practices.
  - ii) Medical services.