

1.) Metal surfaces of smaller areas embedded in PCB's are _____?

a.) Trace

b.) Planes

c.) Targets

d.) Region

2.) The actual cost of PCB can be evaluated on the basis of _____

a) PCB size & material

b) Number of layers

c) Vias on PCB

d) All of the above

3.) What allows the components on board to form interconnections? Traces

a.) trace

b.) planes

c.) Metal Pads

d.) Regions

4.) What does a class of PCB determine?

a.) Reliability of Design

b.) Quality of Design

c.) Quantity of Design

d.) a & b

5.) What category of PCBs are available in vast majorities?

a.) Rigid

b.) Flex

- c.) Metal-core
- d.) All Mentioned Above

6.) Metal-core PCBs are used in _____?

- a.) High Current Designs
- b.) Low Current Designs
- c.) High Voltage Designs
- d.) Low Voltage Designs

7.) Three-dimensional PCB display step models are present in _____?

a.) Library of CAD Parts

- b.) Layout
- c.) Hardware
- d.) Routing

8.) What is the further step in PCB design after the libraries get ready?

a.) Logical Presentation

- b.) Layout
- c.) Hardware
- d.) Routing

9.) What maximizes the effectiveness of testing a PCB?

- a.) Board Side
- b.) Minimum Test Point Distance

c.) Test Point Distribution

d.) Tolerance

10.) What are the benefits of a well-fabricated PCB design?

a.) Time Saved

b.) Reduced Costs

c.) Hassle-free

b.) All Mentioned Above

11.) Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?

a. Iron Soldering

b. Furnace Soldering

c. Torch Soldering

d. Electrical Soldering

12.) Which terminology of PCB represents a thin photo-sensitive polymer by supporting photographic pattern of single traces or IC pads for etching?

a. Prepreg

b. Etching

c. Photo-resist

d. Solder mask

13.) Which type of PCB requires minimum soldering on component side to avoid replacement-oriented difficulties?

a. Single-sided PCB

b. Double-sided PCB

c. Both a and b

d. None of the above

14.) Which of these semiconductor devices isn't a current triggering device?

a. MOSFET

b. TRIAC

c. Thyristor

d. GTO

15.) Which of these number systems has a base of 16?

a. Decimal

b. Binary

c. Hexadecimal

d. Octal

16.) A Silicon Controlled Rectifier (SCR) is a device with:

a. 4 junctions

b. 3 junctions

c. 2 junctions

d. 1 junctions

17.) High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for _____

a) Removal of heat

b) Isolation of stray current

c) Reduction of path length

d) All of the above

18.) What should be the resistance of 0.6 mm wide conductor with 15 cm length and 25 μm thickness of standard copper foil? (Assume $\rho = 1.7241 \times 10^{-6}$ (at 20° C)

a) 118.2 m Ω

b) 138.2 m Ω

c) 172.4 m Ω

d) 192.4 m Ω

19.) What effects can be observed if the separate power and ground planes are provided with large conducting surfaces for better decoupling in PCB layouts?

a) Increase in self-inductance

b) Reduction in self-inductance

- c) Stability in self-inductance
- d) None of the above

20.) Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?

- a) SO
- b) SOP
- c) SOT
- d) SON

21.) Klystron operates on the principle of

- a.) Velocity Modulation
- b.) pulse Module
- c.) Amplitude Modulation
- D.) Frequency Modulation

22.) A cavity resonator can be represented by

- a.) LC circuit
- b.) lossy capacitor
- c.) lossy inductor
- d.) an LCR circuit

23.) fabrication of microstrip line is_____.

- a.) Cladding
- b.) printed circuit technique
- c.) Oxidation
- d.) None of these

24.) ____ devices use a helix?

a.) Klystron amplifier

b.) Klystron oscillator

c.) TWT

d.) None of these

25) Why is an attenuator used in a TWT ?

a.) To prevent oscillations

b.) To prevent saturation CT

c.) to help bunching

D.) To increase gain