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Score: 22/25 (88.00%)

Code: 2203

1. Which coding system for transistor type numbering system is followed by American standard?

- A) JIS standard
C) JEDEC standard (Correct)
 B) Home codes
 D) PRO-ELECTRON standard

2. What is the current gain of common collector amplifier?

- A) Low
 C) Medium
 B) High (Incorrect)
D) Very high

3. What is the current gain of a common ? base amplifier?

- A) Unity
 C) Greater than 1
 B) Infinity
D) Less than 1 (Correct)

4. What is the meaning of first letter indicated in the transistor code number BC 107?

- A) Germanium material used
 C) Antimony material used
B) Silicon material used (Correct)
 D) Indium material used

5. What is the formula used to calculate the current gain (alpha) of common base amplifier?

- A) I_C / I_E (Correct)**
 C) I_B / I_E
 B) I_E / I_C
 D) I_E / I_C

6. What is the name of multi-stage amplifiers?

- A) Cascoded amplifier
 C) Complementry symmetry amplifier
B) Cascaded amplifier (Correct)
 D) Darlington pair amplifier

7. What is the maximum emitter to base voltage V_{EB} (max) for the transistor BC 147?

- A) 4V
C) 6V (Correct)
 B) 5V
 D) 8V

8. How the negative feedback is called?

- A) Regenerative feedback
 C) Current controlled feedback
B) Degenerative feedback (Correct)
 D) Voltage controlled feedback

9. How the maximum permissible voltage that can be applied across the collector ? Emitter junction of a transistor is indicated?

A) V_{CE} (max) in volts (Correct)

- C) V_{CB} (max) in volts
 B) V_{BE} (max) in volts
 D) V_{CC} in volts

10. Which configuration of transistor amplifier is most commonly used in electronic circuits?

- A) Common base configuration
 C) Common collector configuration
B) Common emitter configuration (Correct)
 D) Common drain amplifier configuration

11. Why transistors made of silicon is preferred over the germanium semiconductor material?

- A) Complex design
 C) Requires complicated bias arrangement
B) Higher thermal stability (Correct)
 D) Silicon transistor needs low cut-in-voltage

12. Why NPN type of transistors are preferred over the PNP type transistors?

- A) NPN has lower switching speed
C) NPN has higher switching speed (Correct)
 B) NPN has good bias stability
 D) Low operating voltage

13. Which type of transistors are required to amplify signals from the microphone /transducer?

- A) Low power transistors (Correct)**
 C) High power transistors
 B) Medium power transistors
 D) Epitaxial versa watt transistors

14. What are the basic components required for a clipping circuit?

- A) Diode and resistor (Correct)**
 C) Diode and capacitor
 B) Transistor and diode
 D) Capacitor and resistor

15. Which circuit is used to clip portion of both positive and negative half cycle of input signal voltage?

- A) Combination clipper circuit (Correct)**
 C) Biased positive clipper circuit
 B) Biased negative clipper circuit
 D) Unbiased clipper circuit

16. Which application the clamper circuit is used in electronics?

A) Radars (Incorrect)

B) Radio receivers

C) Storage counters

D) Power supplies

17. What is the use of clamper in electronic circuits?

A) For slicing both peaks

B) For positive peak clipping

C) For negative peak clipping

D) For DC component restoration (Correct)

18. What is the name of the circuit that shifts the original signal in a vertical downward direction?

A) Peak clipper circuit

B) Negative clamping circuit (Correct)

C) Positive clamping circuit

D) Combination clipper circuit

19. Which type of clipper is that a small portion of the negative half cycle of signal is removed?

A) Biased positive clipper

B) Biased negative clipper (Correct)

C) Combination clipper

D) Positive clamper

20. What is the name of the circuit that shifts the waveform upward or downward without disturbing its shape?

A) Clipper circuit

B) Clamper circuit (Correct)

C) Biased clipper circuit

D) Combination clipper circuit

21. What is the function of clipper circuit?

A) Regulation

B) Rectification

C) Amplification

D) Wave shaping (Correct)

22. What is the name of the circuit that shifts the original signal in a vertical upward direction?

A) Peak clipper circuit

B) Negative clamping circuit

C) Positive clamping circuit (Correct)

D) Combination clipper circuit

23. What should be the time constant $t = RC$ for a good clamper circuit with reference to time period of the input signal?

A) Half the time period of signal

B) Double the time of signal frequency

C) Five times the time period of signal

D) RC values should be at least ten times (Correct)

24. When does the biased negative clipper removes the portion of input signal?

A) During the positive half cycle of input

B) Signal voltage is lesser than bias battery voltage (Incorrect)

C) Signal voltage equals the bias battery voltage

D) Signal voltage becomes greater than bias battery voltage

25. When does the biased positive clipper removes the portion of input signal?

A) During the negative half cycle of input

B) Signal voltage is lesser than bias battery

C) Signal voltage equals the bias battery voltage

D) Signal voltage becomes greater than bias battery voltage (Correct)