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Score: 22/25 (88.00%)

Code: 8275

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

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

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

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

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

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

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

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

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

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

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

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

7. 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)**
- B) V_{BE} (max) in volts
- C) V_{CB} (max) in volts
- D) V_{CC} in volts

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

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

9. Why transistors made of silicon is preferred over the

germanium semiconductor material?

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

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

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

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

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

12. What type of packaging is generally used to transistors utilized for low power amplification?

- A) Metal packaging
- B) Plastic packaging (Correct)**
- C) Ceramic packaging
- D) Plastic packaging with metal heatsinks

13. Which type of packaging is used to transistors utilized for medium power amplification?

- A) Plastic packaging with metal heatsinks (Correct)**
- B) Ceramic packaging
- C) Plastic packaging
- D) Metal packaging

14. Which type of amplifier is used to operate the loud speaker?

- A) IF amplifier
- B) RF amplifier
- C) Power amplifier (Correct)**
- D) Voltage amplifier

15. What is the voltage gain in a transistor if the input voltage is 40mV and the output voltage is 3.6V?

- A) 45
- B) **90 (Correct)**
- C) 180
- D) 270

16. What is the input impedance of darlington pair transistors?

- A) Very low input impedance
C) Medium input impedance
- B) Very high input impedance (Correct)**
D) Uniter

17. What is the advantage of using bias in transistor circuits?

- A) Provides positive feed back
C) Easily sets saturated
- B) Never reach saturation (Correct)**
D) Gives maximum distortion

18. Which class of amplifier uses fixed bias because of its impement advantage of transistor will never go to saturation?

- A) Class - A**
C) Class - AB
- B) Class - B
D) Class - C (Incorrect)

19. How does the values of bias resistors selected for collector current in class -B amplifiers?

- A) Q point set slightly below cut-off (Incorrect)
C) Quiescent current beyond the cut-off point
- B) Quiescent current at mid point
D) Quiescent current over the cut-off value

20. Which parameter of passive component can be calculated using the formula ?

- A) Capacitance
C) Capacitive reactance
- B) Inductance
D) Inductive reactance (Incorrect)

21. What will happen when the forward bias voltage across

the PN junction is increased excessively?

- A) Increases the cut - in - voltage
C) Junction ruptured and short circuited (Correct)
- B) Barrier width of junction increases
D) No current flows through the junction

22. What is the overall base emitter voltage required to turn the darlington pair?

- A) 0.2 V
C) 0.7 V
- B) 0.3 V
D) 1.4 V (Correct)

23. How can you confirm a transistor as defective?

- A) By circuit testing
C) By physical testing
- B) By ohm meter testing (Correct)**
D) By voltage measurements

24. Where does the depletion region exists in a bipolar transistor?

- A) Between emitter - base electrodes
C) Between collector and emitter electrodes
- B) Between collector - base electrodes
D) Between E-B and B-C electrodes (Correct)

25. In which quantity affects the Q point of a transistor amplifier?

- A) Decreased temperature
C) Proper biasing methods
- B) Increased temperature (Correct)**
D) Mismatching signals