

**Student: Gajanan Mahabaleshwar kharvi**

**Score: 22/25 (88.00%)**

**Code: 7956**

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 ( $\alpha$ ) 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 are transistors made of silicon 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 are NPN type of transistors 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 for 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 for 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 feedback  
C) Easily sets saturated
- B) Never reach saturation**  
D) Gives maximum distortion (Incorrect)

18. Which class of amplifier uses fixed bias because of its important 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  
C) Quiescent current beyond the cut-off point
- B) Quiescent current at mid point (Incorrect)  
**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 (Correct)**
- B) Inductance  
D) Inductive reactance

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