

**Student: Drashya v naik**

**Score: 26/32 (81.25%)**

**Code: 1308**

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

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

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

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

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

- A) Unity                                    B) Infinity  
 C) Greater than 1                      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        **B) Silicon material used (Correct)**  
 C) Antimony material used        D) Indium material used

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

- A)  $IC/IE$  (Correct)**                  B)  $IE/IC$   
 C)  $IB/IE$                                 D)  $IE/IC$

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

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

7. 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

8. How the negative feedback is called?

- A) Regenerative feedback        **B) Degenerative feedback (Correct)**  
 C) Current controlled feedback      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**              B)  $V_{BE}$  (max) in volts  
 C)  $V_{CB}$  (max) in volts              D)  $V_{CC}$  in volts (Incorrect)

10. 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

11. 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

12. 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

13. 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 versa watt transistors

14. 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

15. 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

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

- A) IF amplifier  
**C) Power amplifier (Correct)**
- B) RF amplifier  
D) Voltage amplifier
- C) Lower operating voltage  
D) Higher amplification factor
25. What is the efficiency of transformer coupled class A amplifier?  
A) Less than 20%  
C) More than 60%  
**B) About 50% (Correct)**  
D) Unity
17. What is the voltage gain in a transistor if the input voltage is 40mV and the output voltage is 3.6V?  
A) 45  
C) 180  
**B) 90 (Correct)**  
D) 270
26. What is the purpose of using positive feedback in amplifiers?  
A) To produce modulation  
C) **To produce oscillation (Correct)**  
B) To produce demodulation  
D) To produce multiplexing
18. 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) Unity
27. 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
19. What is the advantage of using bias in transistor circuits?  
A) Provides positive feedback  
C) Easily sets saturated (Incorrect)  
**B) Never reach saturation (Correct)**  
D) Gives maximum distortion
28. 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)**
20. Which class of amplifier uses fixed bias because of its inherent advantage of transistor will never go to saturation?  
A) **Class - A (Correct)**  
C) Class - AB (Incorrect)  
B) Class - B  
D) Class - C
29. Why is the complementary-symmetry amplifier preferred over the other types of amplifier configurations?  
A) To minimize the gain  
C) To get more voltage gain  
B) To get less distortion  
**D) To eliminate the transformer (Correct)**
21. How do 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 (Correct)**
30. 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
22. Which parameter of passive component can be calculated using the formula?  
A) Capacitance  
C) **Capacitive reactance (Correct)**  
B) Inductance  
D) Inductive reactance
31. Where does the depletion region exist 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)**
23. Which type of amplifier is used to operate the loud speaker?  
A) IF Amplifier  
C) **Power Amplifier (Correct)**  
B) RF Amplifier  
D) Voltage Amplifier
32. In which quantity does the Q point of a transistor amplifier affect?  
A) Decreased temperature  
C) Proper biasing methods  
**B) Increased temperature (Correct)**  
D) Mismatching signals
24. What is the advantage of silicon over germanium for transistor fabrication?  
A) Lower thermal stability  
**B) Higher thermal stability (Correct)**