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Score: 14/32 (43.75%)

Code: 1690

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

- | | |
|--------------------------|--|
| A) JIS standard | B) Home codes |
| C) JEDEC standard | <u>D) PRO-ELECTRON standard</u>
(Incorrect) |

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 (Incorrect) |
| C) Greater than 1 | D) Less than 1 |

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

- | | |
|---|---------------------------------|
| A) Germanium material used | B) Silicon material used |
| <u>C) Antimony material used</u>
(Incorrect) | D) Indium material used |

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

- | | |
|------------------|------------------------------|
| A) IC/ IE | B) IE/ IC |
| C) IB/ IE | <u>D) IE/ IC</u> (Incorrect) |

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

- | | |
|------------------------------------|--|
| A) Cascoded amplifier | B) Cascaded amplifier |
| C) Complementry symmetry amplifier | <u>D) Darlington pair amplifier</u>
(Incorrect) |

7. What is the maximum emitter to base voltage VEB (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) VCE (max) in volts
(Correct) | B) VBE (max) in volts |
| C) VCB (max) in volts | D) VCC in volts |

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

- | | |
|--|---|
| A) Common base configuration (Incorrect) | B) Common emitter configuration |
| 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?

- | | |
|--|---|
| <u>A) Metal packaging</u>
(Incorrect) | B) Plastic packaging |
| 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 | B) Ceramic packaging |
|--|----------------------|

C) Plastic packaging (Incorrect) D) Metal packaging

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

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

17. 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 (Incorrect) D) 270

18. What is the input impedance of a Darlington pair transistors?

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

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

A) Provides positive feedback (Incorrect) B) **Never reach saturation (Correct)**
C) Easily sets saturated D) Gives maximum distortion

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

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

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

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

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

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

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

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

24. What is the advantage of silicon over germanium for transistor fabrication?

A) Lower thermal stability B) **Higher thermal stability (Correct)**
C) Lower operating voltage D) Higher amplification factor

25. What is the efficiency of a transformer-coupled class A amplifier?

A) Less than 20% B) **About 50% (Correct)**
C) More than 60% (Incorrect) D) Unity

26. What is the purpose of using positive feedback in amplifiers?

A) To produce modulation B) To produce demodulation
C) **To produce oscillation (Correct)** D) To produce multiplexion

27. What will happen when the forward bias voltage across the PN junction is increased excessively?

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

28. What is the overall base-emitter voltage required to turn the Darlington pair?

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

29. Why is the complementary-symmetry amplifier preferred over other types of amplifier configurations?

A) To minimize the gain (Incorrect) B) To get less distortion
C) To get more voltage gain D) **To eliminate the transformer (Correct)**

30. How can you confirm a transistor as defective?

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

31. Where does the depletion region exist in a bipolar transistor?

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

32. In which quantity does the Q point of a transistor amplifier?

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