

31. In a half-wave rectifier the r.m.s. value of the A.C. component of the wave is
- [A.](#) Equal to D.C. value
 - [B.](#) More than D.C. value
 - [C.](#) Less than D.C. value
 - [D.](#) Zero

Answer: Option **B**

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32. To obtain an n-type semiconductor germanium crystal it must be doped with foreign atoms whose valency is
- [A.](#) 2
 - [B.](#) 3
 - [C.](#) 4
 - [D.](#) 5

Answer: Option **D**

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33. To obtain a p-type semi-conductor Si Crystal must be doped with foreign atoms whose valency is
- [A.](#) 2
 - [B.](#) 3
 - [C.](#) 4
 - [D.](#) 5

Answer: Option **B**

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34. The operation of a transistor requires
- [A.](#) That the emitter be heated
 - [B.](#) That the base be heated
 - [C.](#) That the collector be heated
 - [D.](#) None of the above

Answer: Option **D**

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35. In forward bias the width of potential barrier
- [A.](#) Increases
 - [B.](#) Decreases
 - [C.](#) Remains same
 - [D.](#) No effect

Answer: Option **B**

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36. The working of transistor as amplifier is similar to

- [A.](#) Step up transformer
- [B.](#) Step down transformer
- [C.](#) Three diodes in common
- [D.](#) Triode vacuum tube

Answer: Option **D**

37. The electronic circuits which implement the various logic operations are called

- [A.](#) Logic gates
- [B.](#) Boolean algebra
- [C.](#) Amplifier gain
- [D.](#) Logic functions

Answer: Option **A**

38. An OP-AMP comparator is a circuit that compares the signal voltage on one of its inputs with a _

- [A.](#) Non-inverting voltage at output
- [B.](#) Reference voltage on the other
- [C.](#) Virtual input
- [D.](#) Output

Answer: Option **B**

39. An OP-AMPs can amplify

- [A.](#) D.C.
- [B.](#) A.C.
- [C.](#) Both A.C. & D.C.
- [D.](#) None of the above

Answer: Option **B**

40. Non-inverting amplifier circuits have

- [A.](#) A very high input impedance
- [B.](#) A very low input impedance
- [C.](#) A low output impedance
- [D.](#) None of the above

Answer: Option **A**