

Physics - ICS Part 2 Physics Chapter 18 Short Questions Preparation

Q1. What is the effect of forward biased and reverse biasing of a diode on the width of depletion region?
Ans 1: When forward biased then the width of depletion region decreases and when reverse biased then the width of depletion region increase.
Q2. Give any two characteristics of operational amplifier.
Ans 1: Input Resistance: It is the resistance between the + and - input of the amplifier, Whose value is of the order of several mega ohms. Output resistance: It is the resistance between the output terminal and ground. Its value is only a few ohms.
Q3. How does the motion of an electron in n type substance differ from the motion of holes in a p type substance?
Ans 1: more mobile and rapid than holes in p-type substance because electrons do not require holes for their motions but p-type substance because electrons do not require holes for their motion but hole depend upon electrons for their motion,Both move in opposite direction.
Q4. Explain why an ordinary Silicon diode does not emit light. Ans 1: Ordinary silicon is opaque to light, So it does not emit visible light. It emits infrared light. To emit light, gallium arsenide or
gallium arsenide photodiode are used as semiconductor.
Q5. What is the net charge on a n-type or p-type substance?
Ans 1: Since they are electrically neutral substance, So the net charge on them is zero.
Q6. Define logic system and logic gates.
Ans 1: A digital system deals with the quantities or variable which have only two discrete values or state. The electronic circuits which implements the various logic operation are known as logic gates.
Q7. Give two applications of gated in control system.

Ans 1: Gates are widely used in control system. They control the function of the system by monitoring some physical parameters

such as temperature ,pressure or some other physical quantity of the system,Sensors are required to operate gates.

Q8. Why the biasing requirement of the junction of a transistor for its normal operation?

Ans 1: For the normal operation the base emitter junction of transistor is forward biased and collector base junction is reverse biased.

Q9. What is meant by rectification?

Ans 1: The conversing of alternating current signal into pulsating direct current signal is called rectification. The current for this purpose is called rectifier circuit.

Q10. What is OP-GATE?

Ans 1: OR-GATE implements the logic of OR operation. It has two or more inputs and a single output. Its output will be zero only when all the inputs are zero.