CURRENT ELECTRICITY

Test Paper-I

MAX MARKS: 30 **TIME: 90Mts**

Sl. No.	QUESTION	ANSWER PAGE	MARKS
1	What is an electric current? Give the formula to find the electric current. Define its SI unit.	Page:94	2
2	Name the phenomenon in which charges flow from the clouds to the earth through the atmosphere. .	Page:93	1
3	Name any two devices where a steady current flow through the device. .	Page:93	1
4	Name the layer of the atmosphere in which charged particles exist. .	Page:94	1
5	What are conductors? What is the effect of an electric field on a conductor?	Page:94	2
6	State Ohm's Law. .	Page:95	1
7	Define resistance of a conductor. Give the SI unit of resistance. Give the factors on which the resistance of a conductor depends upon. .	Page:95	2
8	Define current density. What is its SI unit of measurement? .	Page:96	1
9	What is resistivity of a material? Give the factors on which the resistivity of a material depends upon. How is different from conductivity?	Page:96	3
10	What are the limitations of Ohm's law?	Page:101	2
11	Define mobility. Derive an expression to find the mobility of a charged particle.	Page:100	2
12	The electron drift arises due to the force experienced by electrons in the electric field inside the conductor. But force should cause acceleration. Why then do the electrons acquired steady average drift sped?	Page:100	2
13	Are the paths of electrons straight lines between successive collisions (with the positive ins of the metal) in the (i) presence of electric field, (ii) presence of electric field?	Page:100	2
14	Name the materials that are used in wire bound resistors. Give reason why these materials are used in making these resistors?	Page:102	1
15	Give the colour code used in case of carbon resistors. Also give any two advantages of these resistors.	Page:103	3
16	Plot a graph showing the variation resistivity of the following materials with temperature (a) copper (b) nichrome (c) semiconductor. .	Page:104	2
17	Give the formula to find the resistivity of a material. State the factors on which the resistivity or the conductivity of a material depends upon.	Page:104	2