# MDCAT Physics Chapter 10 Current Electricity MCQ's Test

| Sr | Questions | Answers Choice |
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| 1 | When resistances are connected in Parallel, the effective resistance will be | A. Product of the reciprocals of the individual resistances<br>B. Product of the individual resistances<br>C. Sum of the reciprocals of the individual resistances<br>D. Sum of the individual resistances |
| 2 | The product of resistance and conductance of a resistors is equal to: | A. 1<br>B. Conductivity<br>C. Resistivity<br>D. Zero |
| 3 | A piece of Aluminium (Al) and a piece of Germanium (Ge) are cooled T1 K to T2 K. The resistance of: | A. Each of them increases<br>B. Each of them decreases<br>C. Al increases and Ge decreases<br>D. Al decreases and that of Ge increases |
| 4 | An electric room radiator, which operates at 50V has resistance of 50 Ω. Power of the radiator is approximately: | A. 100W<br>B. 50W<br>C. 450W<br>D. 1000W |
| 5 | The 'emf ' is always even when no current is drawn through the battery of the cell: | A. Zero<br>B. Present<br>C. Absent<br>D. Maximum |
| 6 | Resistance of 60 watt bulbs in 120V line is: | A. 20 ohms<br>B. 240 ohms<br>C. 0.15 ohms<br>D. 180 ohms |
| 7 | A steady current is flowing in a conductor of non-uniform cross-section. Thecharge passing through any cross-section per unit time is | A. Directly proportional to the area of cross-section<br>B. Inversely proportional to the area of cross-section<br>C. Proportional to square of the area of cross-section<br>D. Independent of the area of cross-section |
| 8 | Which combination of 7 identical resistors of 3-ohm will give 12/13 ohm: | A. 3 series, 4 parallel<br>B. 5 series, 2 parallel<br>C. 2 series, 5 parallel<br>D. 4 series, 3 parallel |
| 9 | A total charge of 100C flows through 12W bulb in a time of 50 second. Which is the potential difference across the bulb during this time? | A. 0.12V<br>B. 6.0V<br>C. 2.0V<br>D. 24V |
| 10 | A cell of negligible resistance and e.m.f 2 V is connected across a series combination of 2,3 and 5 ohms. The p.d. across the 3 Ω resistor is | A. 0.6 V<br>B. 1/3 V<br>C. 2/3 V<br>D. 4/3 V |
| 11 | The specific resistance of a wire varies with its: | A. Length<br>B. Cross-section<br>C. Mass<br>D. Material |
| 12 | A charge is 90C passes through a wire in 1 hour and 15 minutes. Wat is the current in the wire? | A. 10mA<br>B. 20mA<br>C. 15mA<br>D. 25mA |
| 13 | Two wires of same material have lengths L and 2L and cross-sectional area 4A and A respectively. the ratio of their specific resistance would be: | A. 1: 1<br>B. 1: 8<br>C. 8: 1<br>D. 1: 2 |
| | | A. 40W bulb will be brighter in series and 100W in parallel |

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| 14 | There are two electric bulbs of 40 W and 100 W. They are first connected in series and then in parallel across a source: | B. 100W bulb will be brighter in series and 40W in parallel<br>C. 40W bulb will be brighter in both the cares<br>D. 100W bulb will be brighter in both the cares |
| 15 | If a source of emf is traversed from positive to negative the potential change will be: | A. Positive<br>B. Negative<br>C. Zero<br>D. Constant |
| 16 | A 100W, 220V bulb is operated on a 110V line, the power consumed is: | A. 25W<br>B. 75W<br>C. 50W<br>D. 100W |
| 17 | When the length and area of cross-section both are doubled, then its resistance: | A. Will become half<br>B. Will remain the same<br>C. Will be doubled<br>D. Will become four times |
| 18 | The emf of a cell of negligible internal resistance is 2V. It is connected to the series combination of □□, □□ □□□ □□ resistance. The potential difference across □□ resistance will be in volt: | A. 0.6<br>B. 2/3<br>C. 3<br>D. 6 |
| 19 | The rate at which the battery is supplying the electrical energy is the: | A. Power output<br>B. Electrical power<br>C. Power input<br>D. Both A and C |
| 20 | Which of the Following bulb will glow Brightest? | A. 100W<br>B. 200W<br>C. 300W<br>D. 400W |