**EXAM GOOD STUDENTS AT THE DISTRICT LEVEL**

**Subjects: natural Science – Physics**

Tiên Minh secondary School

**Question 1**: To transmit the power capacity 100kW from the electric wire which hasthe resistance5Ω with waste capacity 0,5kW. The potential difference between 2 electric wires is ..

A. 10kV B. 15kV C. 20kV D. 5kV

**Question 2**:

Given 3 resistances R1 = 10Ω; R2 = R3 = 5Ω. Connect the electric circuits [R1 is parallel with (R2 is serial R3))] then connect 6V – potential difference power source. The amperage of the main circuit is…….

A. 1,2A B. 0,2A C. 0,6A D. 0,3A

**Question 3** :

Give the circuit [R1 is serial (R2 parallels R3)] , R1 = 3Ω; R2 = R3 = 2R1 andThe amperage of the main circuit is1500mA. The potential difference between 2 circuits is........

A.6V B. 9V C. 4,5V D. 3V

**Question 4**:

A iron operates continuously in 2 hours.The potential difference is 220V.The indices of electric meter increases 2 .The power of the iron is….

A. 1000W B. 2000W C. 100W D. 500W

**Question 5**:

Put the potential difference12V in the circuit, the electricity is used to in 30 minutes is 43,2kJ.Put the potential difference 15V in the circuit,,the electricity is used to in 1 hour is………..

A. 135kJ B. 1350kJ C. 1,35kJ D. 13,5kJ

**Question 6**:

Put a constant resistance 6V in two side of the electric wire then the amperage through that electric wire is 50mA. The resistance of the electric wire is…. Ω ?

**Question 7**:

Give resistances R1; R2; R3; are in series and connectto constant 12V - potential difference power source. R1 = 1,5R2 = 3R3,potential difference between 2 resistances R3 is …………V

**Question 8**: According to the rules of the left hand, the thumbs out 900 in the afternoon ............ ..

**Question 9**: According to the rule of holding the right hand fingers in the direction ..........

**Question 10**: Two lights Đ1 (6V - 6W), Đ2 (6V - 3W) are bright normal. The current ratio of I1: I2 runs through two filament lamps above ...............:

**Question 11:** The circuit consists of two resistors R1 = 12Ω , R2 = 6 Ωparallel connection . On two points there is voltage Potential difference 12V

a. Calculate the equivalent resistance of the circuit.

b. Calculate the amperage through each resistor and through the main circuit.

c. Calculate the heat dissipated on the circuit for 10 minutes.

**Answer**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Question** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **Key** | A | A | B | A | A | 120(Ω) | 2(V) | Electromagnetism | Electric | 2: 1 |

**Key:**

 **Answer 11**

1. Equivalent resistance of the circuit stuck in parallel is:

$R=\frac{R\_{1}.R\_{2}}{R\_{1}+R\_{2}}=\frac{12.6}{12+6}=4($Ω)

1. The amperage of the main circuit is: $I=\frac{U}{R}=\frac{12}{4}=3(A)$

Because: R1 parallel R2  so U=U1=U2

The intensity of electric current passing through resistor R1 is:

$$I\_{1}=\frac{U\_{1}}{R\_{1}}=\frac{12}{12}=1(A)$$

The intensity of electric current passing through resistor R2 is:

$$I\_{2}=\frac{U\_{2}}{R\_{2}}=\frac{12}{126}=2(A)$$

1. the heat dissipated on the circuit for 10 minutes is:

Q = I2.R.t = 32.4.(10.60) = 21600 (J)