

PHYSICS

ELECTRICITY

Total Marks: 25

Duration: 0 hours, 25 minutes

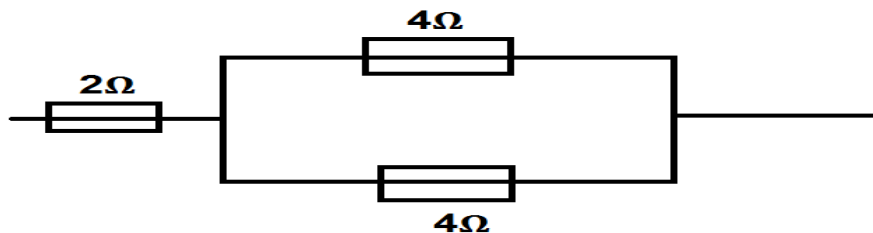
Instructions to test takers

1. Answer all the questions in this paper
2. All the answers for the questions in this paper will be found on **Study Star** (www.studystar.me)
3. Using the answers on the website, mark yourself truthfully and carefully.

Turn this page, time yourself and begin the test

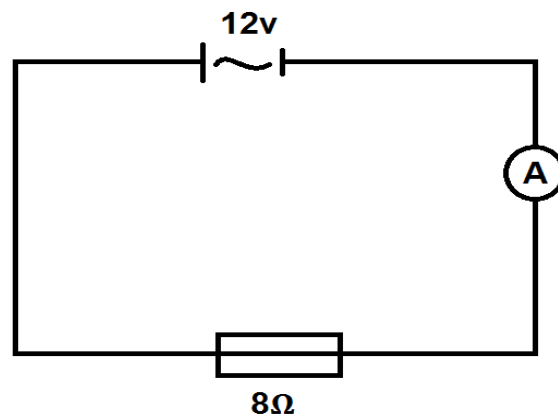
Section A [10 marks]

1. What is the sure way of testing for charges?
 - a. Repulsion
 - b. Attraction
 - c. Induction
2. The discharge of electrons occurring between two charged clouds or between the cloud and the earth is called _____.
 - a. Lightning
 - b. Lightening
 - c. Current
3. Calculate the amount of current flowing through a conductor if 1200C of charge flows in 5 minutes.
 - a. 2A
 - b. 3A
 - c. 4A
4. The instrument used to measure potential difference is called
 - a. Voltammeter
 - b. Voltmeter
 - c. Potentiometer
5. A conductor has a resistance of 2Ω if a current of 5A is flowing in it. What is the potential difference across it?
 - a. 5v
 - b. 10v
 - c. 2v
6. Study the diagram below and calculate the effective resistance.



- a. 10Ω
- b. 5Ω
- c. 4Ω

7. The neutral colour is
- Blue
 - Brown
 - Green
8. Calculate the amount of current flowing through a conductor is 3600C of charge flows in hour.
- 1A
 - 2A
 - 3A
9. The three pin plug has _____
- Live, neutral and fuse
 - Live, neutral, earth and fuse
 - Live and neutral
10. A 12V supply is connected in series with an ammeter and an $8\ \Omega$ resistor as shown below.



What is the reading on the ammeter?

- 10A
- 1.5A
- 0.7A

Section B [5 marks]

11. The study of stationary charges is called _____
12. Materials that cannot conduct electricity are called _____
13. Name the instrument used to measure electric current _____
14. The fuse is placed on the _____ wire.
15. The live wire has a _____ colour.

Section C [10 marks]

16. A bulb is rated 400W, 240V. If the bulb is used for 6 hours, calculate the current.
17. With your answer in question 16 above, calculate the resistance.
18. A 12V motor delivers a current of 3A through a car head lamp for 4 hours. Calculate the power supplied in watts.
19. If America charges 14 cents for electric energy. Calculate the total of using 3kW of electric kettle for 20 minutes and 100W bulb for 5 hours.
20. State any law of electrostatics.



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