Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic : 3_ Conservation of Energy

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Name of the Student:_____
Max. Marks : 13 Marks **Time : 13 Minutes**

Q1.

(a) Complete the sentence by putting a cross (☒) in the box next to your answer.

An electric current is the rate of flow of

(1)

- ☒ **A** atoms
- ☒ **B** charge
- ☒ **C** voltage
- ☒ **D** watts

(b) An electric kettle is connected to a mains voltage of 230 V.
The current in the kettle is 12 A.

Calculate the power of the kettle.

(2)

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(c) A television has a power of 400 W.
The cost of 1 kW h of electrical energy is 15p.

Calculate the cost of using the television for 10 hours.

(3)

.....

*(d) Some students found this information about an energy saving lamp and a filament lamp that give out almost the same amount of light.

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energy saving lamp	filament lamp
	
power = 15 W	power = 60 W
cost = £1.50	cost = £0.30
lifetime = 10 000 hours	lifetime = 1 000 hours
produces 20 J of light energy for each 100 J of electrical energy supplied	produces 5 J of light energy for each 100 J of electrical energy supplied

Describe the advantages and disadvantages of each type of lamp.

(6)

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(Total for Question = 12 marks)

Q2.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Which statement describes conservation of energy in a closed system?

(1)

- ☒ **A** when there are energy transfers, the total energy reduces
- ☒ **B** when there are energy transfers, the total energy does not change
- ☒ **C** when there are no energy transfers, the total energy reduces

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☒ **D** when there are no energy transfers, the total energy increases

(Total for question = 1 mark)

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