

Jaffna zonal Education Office
Term-1 - 2020
Unit Exam-03 (Generation of Electricity)

Grade: 7

Science
Part-1

Time- 40 min

I) Underline the most appropriate answer.

I. The standard unit of current is

- i. Ammeter ii. Volt iii. Farad iv. Ohm

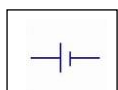
II. Which type of cell is found in wrist watch?

- i. Dry cell ii. Alkali cells iii. Button iv. Lead acid accumulator

III. Which element is used to manufacture the solar cell?

- i. carbon ii. Silicon iii. Boron iv. Phosphorus

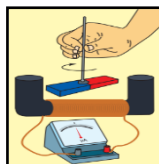
IV.



The symbol shown in the figure is

- i. Capacitor ii. Diode iii. Light Emitting Diode iv. Electric cell

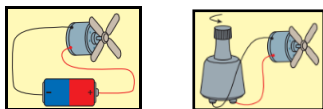
V. What are the changes in this simple dynamo that increases the deflection of galvanometer?



- a. increasing the number of turns of the coil
b. Connecting the power of the magnet
c. Decreasing the speed of movement of the magnet

- i. a only ii. b only iii. a, b iv. a, c

VI. Which type of electric current produced by these figures respective?



- i. Direct current, Alternative current
ii. Alternative current, Direct current
iii. Alternative current, Alternative current
iv. Direct current, Direct current

VII. The energy transformation that occurs in solar cell is

- i. Heat energy \longrightarrow Electricity ii. Light energy \longrightarrow Electricity
iii. Chemical energy \longrightarrow Electricity iv. Kinetic energy \longrightarrow Electricity

VIII. Which is the heavy metal that releases by button cell to the environment

- i. Lead ii. Nickel iii. Calcium iv. Mercury

IX. Which substance that is used for positive dry of dry cell?

- i. Carbon ii. Zinc iii. Manganese dioxide iv. Ammonium chloride

X. The acid that found in Lead-acid accumulator is

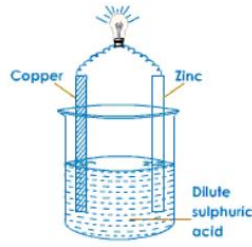
- i. Nitric acid ii. Hydrochloric acid iii. Sulphuric acid iv. Acetic acid (10 x 3 = 30 marks)

II. Select and underline the suitable word.

- i. The main electricity supplied to the house is (Alternative Current/ Direct Current)
ii. (Ammeter / Centre Zero galvanometer) is used to detect the direction of electrical current.
iii. (Dry cell/ Dynamo) generates alternative current.
iv. (Solar cell/ Thermal power production) is considered to be eco-friendly power generation system.
v. The direction of standard current flows from (Positive to negative/ negative to positive) (5 X 2 = 10 Marks)

Part- II

I. The given setup was arranged by grade 7 students.



i. Name this set up?
(4 marks)

.....

ii. Identify the terminals of this set up?

Positive Terminal:..... Negative Terminal:..... (4 marks)

iii. Mention two observations when the circuit is completed. (8 marks)

i.

ii.

iv. Mention two weaknesses of this cell? (8 marks)

i.

ii.

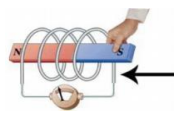
v. Which is the method of power generation I this setup? (4 marks)

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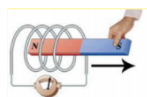
vi. Mention the direction of the standard current in this setup? (5 marks)

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II. The given setup was arranged by the students to identify how electricity is generated in a dynamo.



Setup I



setup ii

i. Give three materials needed of this activity? (6 marks)

i..... ii..... iii.....

ii. What precaution is taken by the students before they do this experiment? (6 marks)

.....

iii. What is your observation in activity I? (4 marks)

.....

iv. What is your observation in activity? (4 marks)

.....

v. Which part of the bicycle dynamo rotates to generate electricity? (4 marks)

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vi. Which principle is based to the generation of electricity in the bicycle dynamo? (6 marks)

