PRISM WORLD

Std.: 10 (English) **Science - II** **Marks: 20**

Date: **Time: 1 hrs**

Chapter: 5

Q.1 A) Choose the correct alternative and rewrite the sentence **(1)**

1) Speed of the wind turbine will depend on -

a. energy b. momentum c. velocity d. blade size

B) Answer the following **(2)**

i) Find the odd one out.

Thermal power plant, CNG power plant, Biogas plant, Hydroelectric plant

ii) Find co-related terms.

Wind energy :Windmill : : Solar energy : ..... .

Q.2 A) Give scientific reason: (Any one) **(2)**

i) Saving energy is the need of the hour.

ii) Hydroelectric energy, solar energy and wind energy are called renewable energies.

B) Answer the following questions. (Any two) **(4)**

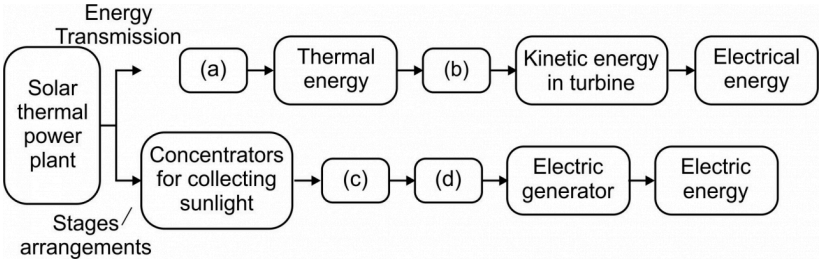
i) Give examples of non-conventional sources of energy.

ii) Write Short Notes on

Power generation plants.

iii) Complete the flow chart

3



Q.3 Answer the following questions. (Any two) **(6)**

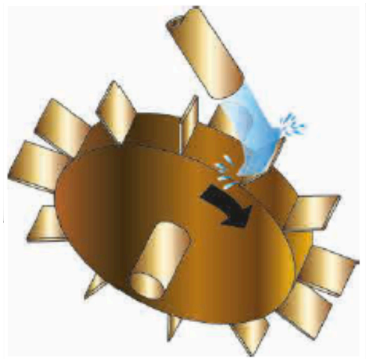
i) Renewable sources (wind, solar etc.) being non- conventional, why do you think, are used at relatively low percentage to generate electricity ?

ii) Complete the paragraph:

(AC, 0.5 V, semiconductor, DC, 2 cm2, solar photovoltaic effect, 1 cm2, electrical energy, 0.2 V)

Solar photovoltaic cell converts the solar radiation energy directly into ..... This is called ..... The electrical energy generated through this energy transformation process is ..... in nature. These solar cells are made of a special type of material called ..... A silicon solar cell of dimension ..... generates current of about 30 mA and potential difference of about ..... .

iii) Answer the questions by observing the following figure.

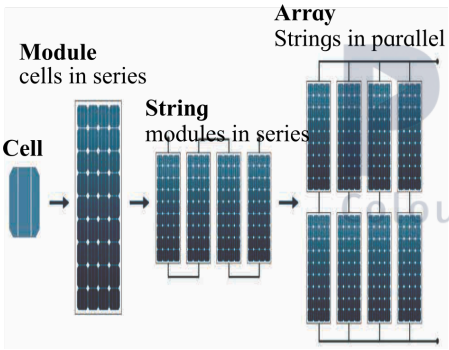


i. Write the name of the device shown in the accompanying diagram.

ii. Write briefly the work of this device.

Q.4 Answer in brief (Any one) **(5)**

i)



Questions based on the given diagram:-

i. What is series combination? (1)

ii. Which connection of cells has same potential difference across the circuit / all the cells ? (1)

iii. What is the effeciency of a good solar cell ? (1)

iv. If 2 cells connected in series, both having current of 5A passing through them, then what will be the total current? Why? (2)

ii) i. What is meant by green energy ?

ii. Which energy resources can be called as green energy resources and why ?

iii. Give any four examples of green energy sources.