CLASS – IX
GEOGRAPHY AND ENVIRONMENT

1. Explain the dual role of man in creation of resource.

Ans. Man is the producer and destroyer of all resource, thereby performing a dual role. As producer man takes part in resource development by his physical energy to produce goods and services and also applies his knowledge and technological skill to develop and produce more resources. Man creates demand as a consumer and hence creates resources. Man then acts as consumer and destroyer of resources by using it. For example, human beings create thermal power from coal which is subsequently destroyed in the process.

2. Explain the characteristics of resource. What are the differences between fund and flow resource?

Ans. The features of resource are as followes :

i) **Utility :** A material or non-material becomes resource when it meets scarcity as well as need.
ii) **Functionability :** When a material or non-material has a function it is considered as resource.
iii) **Acceptability :** A material or non-material needs to have its acceptability to become a resource.
iv) **Demand :** When a material or non-material meets the demand it is considered as resource.
v) **Eco-friendliness :** The resource must be eco-friendly.
vi) **Serviceability :** A resource needs to provide service to human life.

Natural resources which may be exhausted due to continuous use are known as fund or exhaustible resources, e.g.: petroleum, coal, etc. Such resources which are not exhausted even after continuous use are known as flow or inexhaustible resources, e.g. solar energy, wind, etc.

3. Hydel power is more eco-friendly than thermal power.' — Explain it.

Ans. Thermal power production involves the combustion of coal, petroleum, and natural gas which produces toxic fumes containing CO_2, CO, NO_2, SO_2, that causes extreme air pollution resulting in greenhouse effect, acid rain, smog etc. Moreover thermal power stations often release fly ash, superheated water, etc. which are equally harmful for the environment. None of these are produced during hydel power generation and so it is much more environment friendly.

4. Why is hydel power termed as 'white coal'? Why is the majority of thermal power plants found in eastern India?

Ans. Hydel power is known as 'white coal' because it produces same amount of power as coal but does not produce any harmful gases or substances that pollute the environment. The term 'white' means 'clean' here, and that is why it is also called 'clean energy'.

Majority of the thermal power plants are located in Eastern India because most of the good quality coal bearing seams are found in Damodar and Mahanadi Valley coal belts of Eastern India. These coal fields have some of the largest coal mines like Jharia, Bokaro, Karanpura, Raniganj, Talcher etc. Apart from this large amount of water is required for setting up of thermal power plants. Plenty of water is available from the Damodar, Subarnarekha, Brahmani, Mahanadi rivers and the reservoirs of DVC.

Q5. Why is the production of wind power increasing at such a quick rate?

Ans.: Wind energy reduces the risks of climate change. It is cheap and generates a lot of energy. Wind energy is recyclable and not harmful for the environment. It also saves other souces of energy resource.