



মণিপুরৰ শাসনভাৰ (সংস্কৃত)

DEPARTMENT OF EDUCATION (S)

Government of Manipur

UNIT – I
INDIA RESOURCES AND THEIR DEVELOPMENT

SOLUTIONS

EXERCISES

TEXTUAL QUESTIONS & ANSWERS

Q1. Choose the correct answer from the given alternatives.

(i) Which of the following is a renewable resource ?

- (a) Coal
- (b) Forest
- (c) Petroleum
- (d) Natural gas

Ans :- (b) Forest.

(ii) Under which of the following resource types, can wildlife be put ?

- (a) Abiotic
- (b) Replenishable
- (c) Non – recyclable
- (d) Recyclable

Ans :- (b) Replenishable

(iii) The largest share of land in India is occupied by

- (a) Mountain
- (b) Plateaus
- (c) Plain
- (d) Desert

Ans :- (c) Plains

(iv) Which of the following soil types is connected with ‘Kankar’ ?

- (a) Alluvial
- (b) Regur
- (c) Red
- (d) Laterite

Ans :- (a) Alluvial

(v) Which of the following causes land degradation in Punjab and Haryana ?

- (a) Intensive cultivation
- (b) Over – irrigation
- (c) Over – grazing
- (d) Deforestation

Ans :- (b) Over – irrigation.



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Q2. Answer the following questions briefly.

(i) Which factor is mainly responsible for the transformation of resources?

Ans :- Human being is mainly responsible for the transformation of resources?

(ii) Why has resource planning become essential in a country ?

Ans :- Resource planning has become essential in a country because of the sustainable existence of all life forms and to avoid accumulation of resources by a few individuals and solve the problems of haves and have nots.

(iii) Why are regur soils capable of sustaining moisture sufficiently for a long time ?

Ans :- Regur soils are generally clayey, deep and impermeable and are capable of sustaining moisture sufficiently for a long time .

(iv) What is 'Regolith' ?

Ans :- Regoliths are fine inorganic material which are formed by the process of weathering and agents of erosion such as change in temperature, running water, wind, glacier etc .

(v) Why is share of net – shown area decreasing in recent year in India ?

Ans :- The increased pressure on agricultural lands from non – agricultural activities such as infrastructural constructions results in the decline of the net – sown area.

(vi) What factor is responsible for degradation of land in Jharkhand ?

Ans :- Deforestation due to mining is responsible for degradation of land in Jharkhand .

Q3. Distinguish between

(i) Natural and Human resources

Ans :- (a) **Natural resources** – Natural resources are the gift of nature which are useful for making the life of human beings comfortable and worth living and they are of two types – i.e. abiotic and biotic. Example - Land, water, soil wildlife etc.

(b) **Human resources** - Human resources are the resources created by human beings and they are considered with their knowledge, skill and education. Example – Roads, railways, technology etc.

(ii) Biotic and Abiotic resources

(a) **Biotic resources** - The Biotic resources are those living things found in biosphere. Example – Forests, animals , birds etc .

(b) **Abiotic resources** - Abiotic resources are obtained from non – living things of environment. Example - Land, soils, rocks etc.



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(iii) Geographical area and Reporting area of landuse

- (a) **Geographical area** – It is the total land area of a region or a country ie; India has

a total geographical area of 32,87,263sq.kms.

- (b) **Reporting area** – The reporting areas stands for the area for which data on land use classification are available. They are well surveyed and record maintained areas i.e. only 93% of the total land area of India is found to be recorded as per land revenue record.

Q4. Answer the following questions in about 40 words

(i) What is the difference between developed and potential resources ?

Ans :- (a) Developed resources - Resources which have been surveyed and determined their quality and quantity for utilisation. Example – oil reserves in Digboi (Assam), fossil fuels.

(b) Potential resources – Resources found in a region but have not been put to proper utilisation. Example – Wind and solar energy in the western parts of India.

(ii) What are the factors that determine for the utilisation of resources in the economic development of a country ?

Ans :- A proper resource planning with appropriate technological development and institutional changes are the factors that determine for the utilisation of resources in the economic development of a country.

(iii) How should we conserve resources ?

Ans :- We should conserve resources by using them judiciously and wisely. We should conserve them by

- (a) Minimising wastages and maximising exploitation.
- (b) Reducing wastage in the process of mining and processing of minerals.
- (c) Stop or minimising export of minerals.
- (d) Searching new reserves
- (e) Using alternatives like Aluminium instead of Iron
- (f) Extension of scientific research and development programmes.
- (g) Innovation, discovery and invention of technologies.
- (h) Recycling of resources.
- (i) Keeping in reserves for future use etc.



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(iv) What are the main causes of soil erosion ?

Ans :- The main causes of soil erosion are natural agents like running water, wind, glaciers and human activities like deforestation, over grazing, faulty methods of cultivation, construction and mining etc.

(v) Suggest three measures that will have help to protect land from degradation.

Ans : The measures that will have help to protect land from degradation are as follows –

- (a) Taking up of afforestation programmes at different levels.
- (b) Setting up of shelter belts by planting trees across the wind direction particularly in drier parts.
- (c) Proper management of wastelands
- (d) Control of mining activities, quarrying and over – grazing
- (e) Proper discharge of industrial effluents and scientific disposal of urban and other human wastes.

Q5. Answer the following questions in about 150 words.

(i) Explain the fertility of the different soil types of India .

Ans :- (a) Alluvial soils – They are very fertile and form the foundation of Indian agriculture. They are mainly found in the entire northern plains of India and other deltaic regions.

Regur or black soils – They are generally clayey, deep and impermeable and are capable of sustaining moisture for sufficiently long time . They are suited for cotton cultivation and found mostly in the Deccan plateau, Maharashtra, Madhya Pradesh, and Karnataka etc.

Red and Yellow soils – They are reddish in colour due to diffusion of iron in crystalline rocks under poor rainfall condition . But, in higher rainfall areas, they occur in hydrated form and look yellow. They are found in dry areas and deficient in nitrogenous, phosphoric and organic matter and hence are less fertile.

(d) Laterite soils – They are developed in areas of high temperature and heavy rainfall. As a result of intense leaching, the content of humus and microorganism is low. They are therefore, less fertile and support scrub vegetation.

(e) Arid or Desert soils – They are found in western Rajasthan and southern Punjab. They contain fertile wind borne loss in some parts. Such soils can't be made productive to yield good harvest if proper irrigation is provided. Generally these soils are sandy in texture and saline in nature. They lack in **humus** and moisture content due to high temperature and faster rate of evaporation.

(f) Mountain and Forest soil – The texture and fertility of the soils vary with altitude. In areas of high altitude they are thin and acidic with low humus content, but in the lower parts they contain more humus and are more fertile.

(ii) Write an account of the different steps to be taken up for a proper resources planning.

Ans :- Resource planning offers a number of advantages the process of economic development of a country. In one sense, resources planning is a good technique or system of proper utilisation of resources. As the resources are limited and unevenly distributed over the country, their planning is essential for fair distribution of resources.



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The following are the different steps to be taken up for a proper resource planning –

(i) Preparation of inventory of resources.

(ii) Evaluation of terms of availability for development.

(iii) Planning for exploitation of resources -

First stage includes surveying, mapping, and measurement of characteristic and properties of resources.

Second stage for examining resources from the point of view of technology, economy and need.

Third stage is related to action - oriented planning, which emphasises use and reuse of the resources.

(iv) Appropriate technological development.

(v) Institutional changes for enhancing the quality of man.

(vi) Research and Development programmes with fair distribution of resources.

(iii) Explain the changing patterns of land use in India that takes place in recent years.

Ans - India has a total geographical area of 32,87,263 sq. km. However, as per land revenue record, only 93 per cent of the country's total area is available for use in different categories of land use. The land use pattern in the country is changing with time. There are three categories of land use which have undergone increases while four have registered declines. Share of area under forest, area under non – agricultural uses and current fallow lands shown an increase.

The reasons for such an increase are as follows –

Forest area in the country is far lower than the desire 33 per cent of geographical area.

But, there was an actual increase in the forest cover of the country. Because, it was considered essential for maintenance of the ecological balance.

Due to the changing structure of Indian economy, the area under non – agricultural land use is increasing. India's economy is increasingly depending on the contribution from industrial and service sectors which are related with infrastructural facilities.

The trend of current fallow fluctuates over years depending upon the variability of rainfall and cropping cycle. Hence, the reason for such an increase cannot be explained in detail.

On the other hand,

(a) There is declines in the wastelands and culturable wastelands due to increasing pressure on land both from the agricultural and non-agricultural sectors.

(b) The share of land under pastures and grazing lands due to illegal encroachment of common pasture lands by expansion of cultivation.

(b) Decrease in net-sown areas due to increased pressure on agricultural lands from non-agricultural activities such as infrastructural constructions.



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Q6. Give the appropriate term of the following statement.

- (a) Natural endowment that includes things like land, water rocks, and minerals.

Ans :- Abiotic resources

- (b) Plantation of trees on a large scale to prevent soil erosion.

Ans :- Afforestation

- (c) Soils that constitute the great plains of India .

Ans :- Alluvial soil.

- (d) The typical soil of the Deccan Plateau.

Ans:- Regur or Black soil.

- (e) Soils that have been intensely leached.

Ans:- Laterite soils

EXTRA QUESTIONS AND ANSWERS

Answer the following Questions

Q1. What is resource ?

Ans : Everything available in our environment which can be used to satisfy man's material needs and desire are resources. They should be technologically accessible, economically feasible and culturally acceptable ones.

Example : fossil fuels, forests etc.

Q2 . What are the different basis for resources classification ?

Ans :The different basis for resources classification are the

- i) origin
- ii) exhaustibility
- iii) ownership
- iv) the status of development

Q3. Classify resources based on the origin.

Ans : i) **Natural resources** – They are the gift of nature which are useful for making the life of human beings comfortable and worth living . They are two types – biotic and abiotic. Biotic resources are living things like animals, wildlife while abiotics are non-living things like mineral resources, Land, water etc.

ii) **Human resources** – It is the quality of human beings with their knowledge, skill and education. Human beings are made valuable through education, training and experience etc. and become resources .



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Q4. Give three points of difference between renewable and non – renewable resources.

Ans :--

DIFFERENCE

Renewable	Non -Renewable
i) These are the resources which can be renewed or reproduced.	i) These are the resources which cannot be reproduced or replenished.
ii) They do not get exhausted.	ii) They <u>are exhaustible</u> .
iii) E.g. wind, solar energy, water	iii) E.g. coal, petroleum, Natural Gas.

Q5. Classify resources on the basis of ownership ?

Ans : Based on ownership resources are classified as :--

(i) **Individual resources** – Resources which are owned privately by individual e.g. houses, plots.

(ii) **Community resources** - Resources not owned privately by individuals but are accessible to all the members of the community e.g. grazing fields, playgrounds.

(iii) **National Resources** - These are the resources belong to the nation. It also includes individual and community resources e.g. land within the political boundaries of a country, its wildlife water resources etc.

(iv) **International Resources**- Resources which can only be used with the concurrence of international institutions. eg; open oceanic resources beyond 200 km of the exclusive economic zone of a country.

Q6. Why is resource planning becoming very important in India ?

Ans : Resource planning is becoming very important in India because

(i) Resources planning offers a numbers of advantages in the process of economic development of a country .

(ii) It has great importance in a country like India which are rich in certain types of resources but are deficient in other resources.

(iii) It has a great importance in India which has enormous diversity in the availability of resources.

(iv) There are regions which are considered to be self – sufficient on the one hand but are absent in vital resources on the other.

Q7. Give a brief account of the land resource of India ?

Ans : Land resource of India is comprises of the

(i) **Mountains** : They cover 30 percent of land of the country and provide perennial flow of some rivers and facility for tourism and ecological aspects.

ii) **Plateaus** : They cover 27 percent of the total land area and rich in mineral reserve and forests .

(iii) **Plains** : They cover 43 percent of the land of the country and provide facilities for agriculture, industry and settlement.



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Q8. What are the factors responsible for soil formation?

Ans :--- The factors responsible for soil formation are

- (i) Weathering and erosion (temperature, running water wind glaciers)
- (ii) Parent rock materials
- (iii) Regoliths (fine inorganic materials)
- (iv) Organic matters (humus)
- (v) Activities of decomposers and
- (vi) Time

Q9. Where are alluvial soils found in India ?

Ans : i) Alluvial soils are found in the entire northern plain i.e. Indus – Ganga Brahmaputra plain.

ii) They are also found in a narrow belts in Rajasthan and Gujarat .

iii) In the south, alluvial soil are found in deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri.

Q10. Mention the chief characteristic features of the regur or black soils of India by giving three points.

Ans : The chief characteristic features of regur or black soils are as follows –

- (i) Regur or black soils are typical of Deccan plateau and are black in colour.
- (ii) They are generally clayey, deep and impermeable and are capable of retaining moisture for long time.
- (iii) They are rich in calcium carbonate, magnesium, potash and lime.
- (iv) They are best suited for the cultivation of cotton.

Q11. What are the important features of laterite soils of India ?

Ans : The important features of laterite soils of India are –

- i) They are developed in areas of high temperature and heavy rainfall due to intense leaching.
- ii) The content of humus and micro – organism is low.
- iii) They are therefore less fertile and support scrub vegetation.

Q12. State the main characteristic features of arid soils of India.

Ans : The main characteristic features are as follows –

- (i) They are found in western Rajasthan and southern Punjab. They contain fertile wind –borne loss in some parts which can be made productive to yield good harvest if proper irrigation is provided.
- (ii) The soils are sandy in texture and saline in nature.
- (iii) They lack in humus and moisture content due to high temperature and faster rate of evaporation.



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Q13. What are the steps taken up by the government to conserve soil erosion ?

Ans : The steps taken up by the government to conserve soil erosion are

- i) Checking of deforestation
- ii) Checking of over – grazing
- iii) Encouraging of afforestation programmes
- iv) Creation of shelter belt
- v) Strip cropping
- vi) Terrace cultivation

Q14. Explain the chief characteristic features of the soils that constitute the river valley and deltas of India ?

Ans : The soils that constitute the river valley and deltas of India are Alluvial soils.

The chief characters are --

- i) very fertile
- ii) contain sand, silt, clay, potassium and lime
- iii) deficient in phosphoric, nitrogenous and organic contents.
- iv) both Bhangar and Khadar consist of kankars.

Q15. In what ways do the regur soils differ from the alluvial soils ? Give three points of difference.

Ans : (i) Regur soils are formed by the decomposition of basaltic rocks whereas Alluvial soils are formed by the deposition of alluvium.

(ii) Regur soils are deep, clayey and impermeable whereas alluvial soils are made of sand, silt, clay etc. and are permeable.

(iii) Regur soils are rich in calcium carbonate, magnesium etc. whereas alluvial soils are rich in potash and lime.

(iv) Regur soils are typical of the Deccan plateau whereas alluvial soils are found in the northern plains and deltaic regions.

16. “Resources are the function of human activities”. Explain.

Ans : No materials available in our environment can be transformed into resource without man. They include both human and natural things. Human beings are essential components of resources. Thus resources are the function of human beings.
