

Economics 1. Understanding Development: Perspectives, Measurement and Sustainability

Exercise

1 A. Question

Choose the correct answer:

Assertion (A): Development increases the quality of life.

Reason (R): People will have higher incomes, better education, better health and nutrition, less poverty.

- A. Both (A) and (R) are true and (R) explains (A)
- B. Both (A) and (R) are true and (R) does not explain (A)
- C. (A) is correct and (R) is false
- D. (A) is false and (R) is true

Answer

Economic development refers to the overall growth of the country's standard of living and welfare of its citizens. It includes income level, education level, health level, and poverty level.

1 B. Question

Choose the correct answer:

The term 'Human resources' refers to

- A. investment in poor people
- B. expenditure on agriculture
- C. investment on assets
- D. the collective abilities of people

Answer

Human resources refer to the collective abilities of people. People are considered human resources because they can create more resources using their abilities, skills, and technology.

1 C. Question

Choose the correct answer:

For comparing development between countries, their _____ is considered to be one of the most important attributes.

- A. growth
- B. income
- C. expenditure
- D. savings

Answer

It is often used to measure an area's average income and compare the wealth of different populations.

1 D. Question

Choose the correct answer:

_____ is considered a true measure of national income.

- A. GNP
- B. GDP
- C. NNP
- D. NDP

Answer

GDP is considered a true measure of national income. GDP is the Gross Domestic Product is the final market value of all the final goods and services produced in a country during a particular year.

1 E. Question

Choose the correct answer:

The _____ income is also called per capita income.

- A. average
- B. total
- C. people
- D. monthly

Answer

The average income is also called per capita income. Per capita income is the average income earned by a person in a particular area. It is calculated by

dividing the total income with the total population.

1 F. Question

Choose the correct answer:

Which one of the following country is not a G-8 country

- A. Japan
- B. Canada
- C. Russia
- D. India

Answer

India is not a G-8 country. G-8 consists of 8 countries - USA, Russia, Japan, Canada, France, Germany, Italy. They have annual meetings to discuss global issues of growth, development, poverty, health etc. It was founded on November 15, 1975.

1 G. Question

Choose the correct answer:

Which one of the following country is not a member of SAARC

- A. India
- B. Pakistan
- C. China
- D. Bhutan

Answer

China is not a member of SAARC. The South Asian Association for Regional Cooperation (SAARC) is an organization formed by 7 countries- Afghanistan, Bhutan, Bangladesh, Nepal, India, Pakistan, and Sri Lanka. Its main aim is to promote the welfare of the people of its countries, cooperate and collaborate with each other and also work harmoniously with international organizations.

1 H. Question

Choose the correct answer:

Assertion (A): The Net National Product (NNP) is considered a true measure of national output.

Reason (R): It is also known as national income.

- A. Both (A) and (R) are true and (R) explains (A)
- B. Both (A) and (R) are true and (R) does not explain (A)
- C. (A) is correct and (R) is false
- D. (A) is false and (R) is true

Answer

The correct answer is b. Both (A) and (R) are true and (R) does not explain (A).

1 I. Question

Choose the correct answer:

Assertion (A): Human resource is necessary for the progress of any country.

Reason (R): Investment in education and health of people can result in a high rate of returns in the future for a country.

- A. Both (A) and (R) are true and (R) explains (A)
- B. Both (A) and (R) are true and (R) does not explain (A)
- C. (A) is correct and (R) is false
- D. (A) is false and (R) is true

Answer

The correct answer is a. Both (A) and (R) are true and (R) explains (A). Human resources are of utmost importance to the progress of the country. If the adequate investment is made in education and health of the people, a higher rate of return can be expected in the future.

1 J. Question

Choose the correct answer:

The Human Development Index (HDI) does not take into account the following dimension in its calculation

- A. Gender
- B. Health
- C. Education
- D. Income

Answer

The Human Development Index (HDI) does not take into account the gender ratio of a country. HDI is an index used to measure the progress of the

country, in terms of its human resources. It used the education level, health level and the income for calculation.

1 K. Question

Choose the correct answer:

Among the following states which state have the literacy rate (2011) higher than the national average

- A. Andhra Pradesh
- B. Uttar Pradesh
- C. Tamil Nadu
- D. None of these

Answer

Tamil Nadu has a literacy rate higher than the average rate. India's national average literacy rate in 2011 was 74.04% and Tamil Nadu's was 80.33%.

1 L. Question

Choose the correct answer:

Sex-ratio means

- A. the ratio between adult male and an adult female in a population
- B. the ratio between female and male in a population
- C. the relationship between a male or female
- D. the number of females per thousand males

Answer

Sex ratio is the number of females per thousand males. According to the 2011 Census, there is an upward trend in it. It was 933 females to that of 1000 males in 2011.

1 M. Question

Choose the correct answer:

Inter-generational equality is ensured under the process of

- A. Industrial progress
- B. Economic development
- C. Sustainable development
- D. Economic growth

Answer

Inter-generational equality is ensured under the process of sustainable development. It also includes global warming and climatic changes.

1 N. Question

Choose the correct answer:

Find the odd one

- A. Solar energy
- B. Wind energy
- C. Paper
- D. Natural gas

Answer

Paper is the odd one out. Solar energy, wind energy, and natural gas are examples of nonconventional methods of energy. This type of energy can be reused, does not cause pollution and also does not cause harm to any living being.

1 O. Question

Choose the correct answer:

_____ is the state with highest installed solar capacity in India.

- A. Tamil Nadu
- B. West Bengal
- C. Kerala
- D. Andhra Pradesh

Answer

Tamil Nadu has the highest installed solar capacity in India. It is 1,819.42 as per 31 December 2017.

1 P. Question

Choose the correct answer:

_____ resources are those who will get exhausted after years of use.

- A. Natural
- B. Renewable
- C. Non-Renewable

D. New

Answer

Natural resources are those who will get exhausted after years of use. They are the resources which are available in abundance in nature and can be used for the economic purpose. Such as coal and oil.

1 Q. Question

Choose the correct answer:

The thermal plant emits a large quantity of _____, which pollutes the environment.

A. Oxygen

B. Nitrogen

C. Carbon

D. Carbon dioxide

Answer

The thermal plant emits a large quantity of carbon dioxide which pollutes the environment. In 2011, the total world emission from different thermal plants was 38.2 billion tons.

2 A. Question

Fill in the blanks:

Economic progress of any country is known as _____

Answer

Economic progress of any country is known as economic growth. Economic growth is the increase in the market value of all the final goods and services produced by an economy over time.

2 B. Question

Fill in the blanks:

The headquarters of HRD Ministry is in _____

Answer

The headquarters of the HRD Ministry is in New Delhi.

2 C. Question

Fill in the blanks:

The state having the highest literacy rate in India is _____

Answer

The state having the highest literacy rate in India is Kerala with 93.91%.

2 D. Question

Fill in the blanks:

Human Development Report of the world prepared and released by

Answer

Human Development Report of the world prepared and released by Human Development Report Office of the United Nations Development Programme (UNDP).

2 E. Question

Fill in the blanks:

Groundwater is an example of _____ resource.

Answer

Groundwater is an example of a natural resource. It is available in abundance and can be used for economic purpose. But continuous use of it may exhaust it for future generations.

2 F. Question

Fill in the blanks:

The book An Uncertain Glory was written by _____

Answer

The book An Uncertain Glory was written by Amartya Sen, and Jean Drèze. They are two of India's leading economists who propagate the idea that the main essential economic problems are caused by the lack of attention paid to them.

3. Question

Match the following:

1. Development	Wildlife Protection Act
2. Human resource	Renewable resources
3. Solar energy	Part of daily life
4. 1972	Education

Answer

1. Development - Part of daily life. Development in an economic sense is the progress of a country towards a better economic, social and political situation. So, it is a part of daily life.

2. Human Resource - Education. The human resource of a country refers to the collective abilities of its people. Education is a powerful tool to help people become an asset to the country's prosperity.

3. Solar energy - Renewable resources. A renewable resource is a resource which can be used repeatedly, and it will replace itself naturally.

4. 1972 - Wildlife Protection Act. It is an Act given by the Parliament in 1972, for the protection of animals and plants.

4 A. Question

Give Short answers:

What do you mean by development?

Answer

Development is a comprehensive term which includes an increase in real per capita income, an improvement in the living standard of people, reduction in poverty, illiteracy, etc.

The main features of development are the following:

It is a broader term than economic growth.

It also implies an increase in the production of goods and services in an economy along with the advancement of technology.

It is a long-term process.

It is more suitable to the developing countries.

Both qualitative and quantitative changes are included in it.

It is a result of continuous planned and goal-oriented activities.

There are two bases to check economic development- National income and per capita income.

4 B. Question

Give Short answers:

What are the indicators of development?

Answer

Development refers to the all-round growth of a country in terms of its economic, social and political wellbeing. There are many indicators of economic development. Such as:

Human development index: HDI was introduced by the UNDP- United Nations Development Program to estimate economic development in terms of education, health, and per capita income.

Life expectancy: It is affected by many factors such as the stability of food supply, political situation, the chances of natural diseases.

Adult literacy: It includes all the people above the age of 15 who are able to read and write.

Gross domestic product per capita: This is the most common indicator for development calculations. It is estimated by dividing the Gross Domestic Product in a year by its population.

Some countries also use other indexes such as the happiness index, corruption index, carbon dioxide emissions, military expenditure etc.

4 C. Question

Give Short answers:

Why NNP is not considered as a useful measure to compare a country's development with other countries?

Answer

Gross Domestic Product or GDP is the value of all the final goods and services produced in a country during one year. Net National product or NNP is the GDP plus the Net factor income from abroad or NFIA minus the depreciation (fall in the value of goods and services over time). NNP is not considered as a useful measure to compare a country's development with other countries because of the following reasons:

NNP accounts for using depreciation but the value of depreciation is different in different economies.

$NNP = GDP + NFIA - \text{depreciation}$. If we assume NFIA to be constant, the NNP can change due to a change in GDP or depreciation. But it is difficult to assess whether the GDP is increasing, or depreciation is rising or decreasing.

India receives a large number of remittances as compared to other countries. This makes NNP an unfavourable measure to calculate development.

NNP has a more complex calculation system.

It is due to these reasons that NNP is not considered a useful measure to compare different country's development.

4 D. Question

Give Short answers:

Why human resources are considered the foremost resource of any country?

Answer

Human resources are the collective abilities of the people of a country. They are considered the foremost resource of a country because of the following reasons:

a) every country has certain natural resources such as coal and oil. It also has access to certain renewable resources like solar and wind energy. However, the use of any resource can be done only with the skills and abilities of the humans.

b) any resources can be developed or any technology can be innovated only by the human resources.

c) any organization or company can only develop by incorporating the skills, technology, and abilities of the humans.

Thus, it is extremely important for a country to invest an adequate amount of efforts in developing human resources.

4 E. Question

Give Short answers:

Expand the following: 1. PPP 2. HDI

Answer

PPP- Purchasing power parity is the ratio of purchasing power of the currencies of two trading countries. It is the ratio of the level of price in different nations. So, we can say that the exchange rate between the two countries is equal to the ratio of the price level in the two countries. It can be denoted as

RATE OF EXCHANGE = P_1/P_2 ,

where P_1 is the price level in country 1, and

P_2 is the price level in country 2.

HDI - HDI is the human development index. Human development index was a composite index given by UNDP-United Nations Development Program to measure the progress of a nation in terms of its education, income and health levels. It had three indicators for the same. :

(i) Longevity: It denotes a long and healthy life which is measured by 'life expectancy at birth'. It indicates how long a newborn baby is expected to live.

(ii) Knowledge: It refers to the literacy rate. It is measured by the percentage of educational attainment, a combined gross enrolment ratio in primary, secondary and tertiary level.

(iii) A decent standard of living: It denotes the standard of life. It is measured by per capita income.

The rank of a country is obtained by the overall achievement in these three basic indicators of human development.

It is an extremely good measure because it is a comprehensive index that covers all the major aspects of life and is used to measure the economic development of a nation.

4 F. Question

Give Short answers:

Expand the following: 1. NNP 2. PCI

Answer

NNP: NNP is the Net National Product. It can be either at factor cost or market price.

NNP at FC is the sum total of factor incomes earned by the normal residents of a country during one year. Factor income is the income earned by a factor of production for rendering their services to the production.

NNP at MP is the market value of all the final goods and services produced during one year including NFIA and excluding depreciation.

NNP is not considered as a useful measure to compare a country's development with other countries because it is a complex process and not easy to calculate. Moreover, every country has its own level of NFIA and depreciation which may be different due to many reasons. For example, India has a high level of remittance received (NFIA) as compared to other countries. So, this becomes an unbiased factor to estimate and measure the economic progress between different countries.

PCI- Per capita income. Per capita income is the average income of the country. It is calculated by dividing the national income of a country by its total population. It is used to compare the income level of different countries. It uses only the economic aspect of a nation and ignores other social aspects such as the education level and the health status of the country. So, PCI can be regarded as a single indicator of the economic development of a country. The World Bank has divided the countries into rich and poor, on the basis of their PCI.

4 G. Question

Give Short answers:

What is 'Solar Power'?

Answer

Solar power is the power generated from the sun's heat. The sun emits a lot of heat which can be exploited for economic gains. The humans have successfully developed technologies which can use this heat to generate power. Although the maximum heat of the sun is absorbed by the atmosphere, still the amount received by the Earth is enough to generate power. This heat is used by photovoltaic cells or solar panels.

The amount of solar energy received by the world was calculated to be 3000-50000 exajoules (EJ) which is much larger than the total world energy consumption of 600 EJ, so it can be used widely.

Solar power is a renewable form of energy. This means that a lot of energy can be used, and this can be replenished on its own. It does not cause any pollution and is also not harmful to any living beings.

There are 2 technologies where solar power is used:

Solar cooker: It is a device which uses the sun's energy to cook food. The basic underlying principle is that the black surface absorbs more heat and the glass plate used produces the greenhouse effect inside the cooker.

Solar panel: It is a device made of silicon which converts the energy into electricity. It is used in artificial satellites, space probes, traffic signals, radio, wireless technology etc.

There are many advantages to using this form of energy such as it is a renewable form of energy and is environment-friendly. It is also very easy to install and use. However, one major disadvantage is that it cannot be used on cloudy or rainy days.

5 A. Question

Answer in detail:

Discuss the policies for sustainable development.

Answer

Sustainable development is the process of economic development where the resources are used in a judicious manner to satisfy the needs of the present generation as well as to conserve them for future generation.

According to the United Nations Conference on Environment and Development (UNCED), sustainable development can be defined as “development strategy that meets the need of present generation without compromising the ability of future generation to meet their own needs.”

According to Edward Barbier 'Sustainable development is one which is directly concerned with increasing the material standards of living of the poor at the grass root level.'

The features of sustainable development are:

- a) judicious use of natural resources
- b) no reduction in resources for future generation
- c) a proper check on the pollution level
- d) a rise in the per capita income and economic welfare

The policies for sustainable development are:

- a) sustainable development can greatly succeed if the country relies on nonconventional methods of energy. Nonconventional energy is the one which can be replenished in no time. They are pollution free and do not cause any type of harm to the living beings of the planet. Solar energy, wind energy, and hydroelectricity are a few examples of nonconventional energy forms.
- b) the use of compressed natural gas or CNG in public transport system as fuel can help to decrease the air pollution.
- c) to increase the level of production the farmers can use organic fertilizers for production. In some areas, cattle are used because their waste production is extremely useful in the form of fertilizers. Earthworms can convert organic matter into compost faster than the normal process of composting.
- d) with green revolution pan to use the chemical pesticides to produce more. Certain negative impacts on soil milk and fishes. To overcome this problem pesticides should be used which are based on plants like the name even animals like snake and Peacock can help to control the pest

Thus, implementing the above policies can help to promote a sustainable form of development.

5 B. Question

Answer in detail:

Describe in detail about environmental policies in India.

Answer

According to the Environment Act-1986, 'Environment includes, water, air and land and the interrelationship which exists among and between water, air, land, and human beings and other creatures, plants, microorganisms, and property'.

The major threat to the environment of India is poverty, population, and increasing development in the industrial sector. Pollution of air, water pollution, land degradation etc is other major concerns of India. The development activities in India have led to such disastrous situation of the environment.

For the first time, the importance of promoting and preserving the environment along with development was introduced in the fourth five-year plan. However, it was only in the upcoming plans that the ideas expressed in this plan were made into concrete programs.

The fifth five-year plan laid great stress on the need of a national committee which would work in coordination with development. All the major industrial decisions were implemented only after carefully analyzing its impact on the environment. A huge emphasis was laid on the fact that the development should not cause any reduction in the quality of life. The link between development and environment was heavily stressed.

In the sixth five-year plan chapter called environment and development was included which focused on agriculture, forestry, mineral, fishery, water, marine management, renewable sources of energy and human settlement.

The Government of India set up a committee in January 1980 under the Chairmanship of Shri. N.D. Tiwari, then Deputy Chairman of the Planning Commission to review the existing environmental laws and to recommend measures for Environment protection. It emphasized the need of a system for the protection of the country's natural resources such as Land, water and air to conserve the country's ecological system.

The Government of India also introduced certain other policies such as The National Conservation Strategy and Policy Statement on Environment and Development 1992, The National Forest Policy, 1988 and the Policy Statement for Abatement of Pollution, 1992. They all focused on matters relating to environmental management at a national level. In 2006 the national environment Policy was approved by the Union Cabinet. It was a comprehensive National environment policy that brought together the guiding principles of all the above documents.

The objectives of national environment policy 2006 are:

- a) the conservation of critical environmental resources which are important for human life, livelihood, and economic growth.
- b) intergenerational equity to meet the needs of the future generation as well
- c) integration of the environmental policies with the overall development of the country
- d) ensure efficient use of all the environment resources

e) to apply the principles of good governance such as transparency, rationality and accountability and reduction in time to the regulation of

5 C. Question

Answer in detail:

Differentiate between renewable and non-renewable resources.

Answer

The natural resources are divided into two categories- renewable resources and nonrenewable resources. The difference between the two is given in the table below

SR.NO	RENEWABLE RESOURCES	NONRENEWABLE RESOURCES
1.	Renewable resources are the resources which can replace itself easily and naturally within a short period of time.	Nonrenewable resources are the resources that cannot replace itself in the future in a short period of time.
2.	They are sustainable in nature.	They are exhaustible in nature.
3.	They are in an unlimited quantity	They are in a limited quantity
4.	They are environmentally friendly	They are not environment-friendly.
5.	They have a lower cost	They have a higher cost

6.	The rate of renewal is greater than the rate of consumption.	The rate of renewal is lower than the rate of consumption.
7.	They do not cause any health issues to the living beings of the Earth.	They cause adverse issues by realizing smoke and cancer-causing elements into the atmosphere.
8.	It promotes the balance in nature.	It disrupts the balance of nature by digging out coal and crude oil.
9.	It does not release any pollutants in the air.	It releases various pollutants which then affect the air and water of the planet.
10.	For example, solar energy, wind energy, etc.	For example, Minerals and coal

5 D. Question

Answer in detail:

Mention any five environmental acts and their action.

Answer

The Government of India has introduced many acts for the preservation and promotion of the environment of a country. A few of them are mentioned below:

a) The Wildlife Protection Act, 1972: It was introduced with the aim of protecting the wildlife of the country, control poaching, smuggling and illegal

trade in wildlife. It was amended in 2003 and the punishment of any offence under this act was made stricter. The main objective is to provide protection to the listed endangered plants and animals and ecologically important areas.

b) The Water (Prevention and Control of Pollution) Act, 1974: This was introduced to provide prevention and control of water pollution in the country. It has set up different boards for the prevention and maintenance of water level in the country. This act prohibits the discharge of a pollutant into any waterbody beyond a given standard. It can also punish for noncompliance of any rule. At the centre, CPCB has been set up and at the state level, SPCB has been functioning.

b) The forest conservation act 1980: It was introduced to help conserve the forest of India. It restricts and regulates the use of forest land for nonforest purpose without obtaining prior approval from the central government. It lays down certain prerequisite for the diversion of forest land for any nonforest purpose. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, recognizes the right of the scheduled tribes and other traditional forest dwellers over the forest area in Habitat by them.

d) The Air (Prevention and Control of Pollution) Act, 1981: This act was introduced to prevent, the air pollution as well the establishment of boards at both send for implementing an air quality standard was established under this act. The use of polluting fuels and other related substances were prohibited. The state government has the power to declare any area within the state as air pollution control area. Any industrial plant has to obtain consent from the state government before operating.

c) The Biological Diversity Act, 2002: The main purpose of the act is to conserve the biological resources and use them in a sustainable manner. National biodiversity authority in Chennai has been established to implement the objects of this act

6. Question

Projects and Activities:

List the various ways in which the problems of garbage and emissions are being dealt with around the world.

Answer

The measures that have been taken to solve the issue of garbage and emissions are:

1. Waste reduction and reuse: Remedial measures like reduction and reuse of waste are taken. Reduction of waste means encouraging the Producers and Consumers to produce less waste such as reduction in packing, using bags and covers made of cloth or recycled material. Reusing of waste means encouraging the public to purchase reusable goods. They are also advised to donate old clothes, utensils etc to the needy.

2. Recycle waste: Recycling means reducing the amount of waste and using the waste generated for some other purpose. There are 3 levels of recycling process:

i. Reconstructing the recyclable material and metal from stored waste and collecting them separately,

ii. Preparation of raw material from collected metal.

iii. Creating a new product from raw material.

3. Collection of waste: The local bodies appoint a staff which has the responsibility to collect the waste and recycled waste twice a week. But the waste that is a shelter to the flies or spreading odour has to be collected immediately.

4. Treatment and disposal: The new garbage treatment technology has discovered that if the management form is changed, it can help to reduce the amount of waste generated, which would imply a simpler waste disposal method. The waste is disposed on the basis of the amount of waste and type.

5. Incineration: In this method, the waste is combusted in the presence of oxygen. After accumulation, the garbage turns into carbon dioxide and water vapour. This method helps to reduce transport cost and the production of methane.

6. Gasification and pyrolysis: Both are similar thermal methods. In this method the component of the waste is dissolved at high temperature these are used in low oxygen or nonoxygen field.

7) Solid waste management: Solid waste management means to manage the process of treatment, salvage, reuse, re-rotation change of energy without affecting the environment and the public health in this system the state has the responsibility to provide training, suggestion, and resources to the local bodies of Urban and rural areas for solid waste management. In this system cleaning workers are employed on a regular or contractual basis to bring garbage from the houses hospitals and other establishment and gather it at the garbage collection centre. From this centre, it is taken to the garbage disposal centre through different means of transportation like trucks, tractors etc. At the disposal centre, the garbage is divided into different categories and then disposed of accordingly.

7. Question

HOTS

Write in detail what kind of environmental problems you face in your locality.

Answer

Our environment is constantly changing. The need to be aware of our environment is now more than ever. The climate changes, global warming, increasing pollution levels have created a hazardous situation for humans.

There are many environmental problems that we face all around us. The most dangerous ones are those that we face in our own locality. A few of them are mentioned below:

a) Waste disposal: It is said that an average person disposes of 4.6 pounds of trash per day. Sadly, most of the people tend to throw waste on the road or on the empty plots. Despite, proper trash cans set up everywhere and the arrangement of a sweeper who can collect the trash from your doorstep, people tend to dispose of waste in the wrong places.

b) Water scarcity: People have taken water for granted. The continuous waste of water in the household and building maintenance have created a serious issue of water scarcity.

c) Urban Sprawl: With more and more people shifting to urban areas, the housing problems have been on the rise. Any small empty plot is converted into a multi-story apartment. This has made the locality very congested and increased the traffic issues.

d) Diseases: The diseases have been on a continuous rise due to water logging and inappropriate waste disposal. The children are being affected by it the most.

8. Question

Life Skill

How is the Per Capita income calculated?

Answer

Per capita income is the average income of the country. It is calculated by dividing the national income of a country by its total population.

The formula for per capita income :

Per Capita Income or PCI = National income of a country / Total population of the country.

For example, the national income of country X is Rs, 5,00,000 and its total population is 5000.

So, PCI = 5,00,000/5,000

PCI = 100

It is used to compare the income level of different countries. It uses only the economic aspect of a nation and ignores other social aspects such as the education level and the health status of the country. So, PCI can be regarded as a single indicator of the economic development of a country.

The World Bank has divided the countries into rich and poor, on the basis of their PCI.

