Gujarat Board Textbook Solutions Class 12 Economics Chapter 2 Indicators of Growth and Development

1. Choose the correct option for the following questions :

Question 1. Development is a multi dimensional process. Who has given this statement?
(a) Todaro
(b) Kindleberger
(c) Marshall
(d) Machlup
Answer:
(a) Todaro

Question 2. Which concept is qualitative?
(a) National Income growth rate
(b) Per capita Income growth rate
(c) Economic growth
(d) Economic development
Answer:
(d) Economic development

Question 3. What was India's ranking in the world according to the Human Development Index in 2014?
(a) 127
(b) 128
(c) 129
(d) 130
Answer:
(d) 130

Question 4. What was the per capita income of India in US dollars according to the Human Development Report of 2014?
(a) 7110
(b) 7068
(c) 480
(d) 5497
Answer:
(d) 5497

Question 5. When economic development takes place in a country
(a) Contribution of agricultural sector decreases.
(b) Contribution of agricultural sector increases.
(c) Contribution of industrial sector decreases.
(d) Contribution of service sector decreases.

Answer:
(a) Contribution of agricultural sector decreases.

Question 6. What is the maximum value of Physical Quality of Life Index (PQLI)
(a) less than 100
(b) more than 100
(c) 100
(d) zero
Answer:
(c) 100

Question 7. What is the value of Human Development Index?
(a) 0
(b) 1
(c) between 0 & 1
(d) 100
Answer:
(b) 1

Question 8. Generally which countries are related with the concept of economic growth?
(a) Developed
(b) Developing
(c) Backward countries
(d) Third world countries
Answer:
(b) Developing

Question 9. Economic development is the ____ of economic growth.
(a) Cause
(b) Result
(c) Means
(d) End
Answer:
(b) Result

Question 9. ____ was first in Human Development Index according to 2014 report.
(a) Japan
(b) Norway
(c) America
(d) India
Answer:
(b) Norway

2. Answer the following questions in one line :

Question 1. What is Economic growth?
Answer:
The increase in the total output of an economy in the long run is known as economic growth. By total output we mean that there is a continuous increase in the real national income and the real per capita income which we call as economic growth.

Question 2. Give the meaning of Economic development?
Answer:
Economic development is the process by which a nation improves the economic, political, and social well-being of its people.

Question 3. What is per capita income?
Answer:
The number obtained by dividing total national income with total population is called per capita income.

Question 4. Why is per capita as an indicator is more effective than national income as an indicator?
Answer:
The 'per capita income' takes into consideration the population which national income does not. Hence, this indicator of development is superior to the 'national income'.

Question 5. Which economist presented the Physical quality of life index?
Answer:
Morris Davis Morris.

Question 6. How many countries were included in the HDI of 2014?
Answer:
188 countries

Question 7. Which factors are included in the Human Development Index?
Answer:

1. Life expectancy,
2. Education and
3. Income.

Question 8. What is Infant mortality rate?
Answer:
The number of infants who die out of every 1000 infants before completing their first year is known as infant mortality.

Question 9. State the maximum value in Human Development Index.
Answer:
The maximum value of HDI is 1.

Question 10. What does high per capita income indicate?
Answer:
It indicates that economic growth has taken place in the country. (When considering per capita income as an indicator we can also say that increase in per capita income indicates increase in development.)

Question 11. Sanitation facility indicates which aspect of improvement?
Answer:
It is a qualitative aspect.

3. Answer the following questions in brief :

Question 1. State the limitations of National Income as an indicator.
Answer:
Considering growth rate in national income as an indicator of economic development has got its own limitations. **These are discussed below:**

1. Difficulty in calculating the true national income:
Problems of double counting, products produced for self-consumption, difficulties in calculating depreciation, illegal income, tax avoidance, tax evasion, barter transactions, illiteracy, employment of persons in more than one occupation, etc. make it difficult to estimate the true national income of the country. Hence national income cannot be considered as a true measuring rod of the rate of economic development of a country.

2. Population:

- One cannot understand the rate of economic development just by knowing the national income of the country. The extent of population of the country should also be known.
- By considering population we can say that if the rate of growth of national income is lesser than the rate of growth of population, then development is in negative. Similarly, if the rate of growth of national income is higher than the rate of growth, of population, then the rate of economic development is positive.
- Since, the method of national income does not consider the population and its growth, this indicator of development is not the true indicator of economic development.

3. Different methods of calculating national income:
There are different methods used to calculate national income across the world. The most important among them are:

(a) Production method,
(b) Income method and
(c) Expenditure method.

- The measurement of national income varies based on the method of calculation used by the country.
- Different countries adopt different methods to calculate national income. Hence, comparing the economic development through national income as an indicator becomes difficult.

Question 2. State the limitations of per capital income as an indicator.
Answer:
1. Only estimates:

- The national income of the economy is calculated almost every year and hence we get quite a correct data but the population of the country is not calculated every year.
- In India population census takes place once in 10 years. So, for the remaining 9 years we just take approximation of the population.
- Per capita income is obtained by dividing gross national income with population. Since, we do not get exact count of population every year, per capita income gives us an estimated figure for all those years when we do not count population.

2. Difficulty in calculating national income and per capita income:
Whether per capita income should be calculated at current price or constant price and their related difficulties make it difficult to know the real situation of per capita income and hence development.

3. Per capita income shows only an average:

- We get per capita income simply by dividing national income with population. This means that per capita income shows only average income.
- We cannot decide at which stage our development is just on the basis of this average.
- If the income distribution among the population has taken place equitably then we can say that rise in per capita income shows development. However, if equitable distribution has not taken place then rise in per capita income does not mean increase in economic development. Hence, per capita income as an indicator of development is not truly appropriate.

4. Difficulty in comparison:

- Countries express their per capita income in their own currency. This makes it difficult to compare at international level.

- So, to compare per capita income of various countries, it will have to be first converted into US dollar. Once done, we can compare the economic development of different countries.
  Moreover, different countries of the world have put different controls on their exchange rates. Hence, real exchange rate cannot be known. So, it is not possible to make real comparison between countries.

5. Per capita income of the country is not actual income that a citizen gets. Per capita income as an indicator hides more than it reveals and hence it is not a correct indicator.

Question 3. Where do the quantitative and qualitative changes occur?
Answer:

- Quantitative and qualitative changes are characteristics of economic development.
- -During economic development, 'output' which is a quantitative change increases.
- Due to research and innovation, the quality of the products which is a qualitative aspect also improves.
- However, it should be noted that there is more of qualitative improvement rather than quantitative.

Question 4. What type of change is rise in production?
Answer:

Question 5. What are the various indicators of Economic development?
Answer:

- Growth-rate of national income
- Growth-rate of per capita income
- Physical Quality of Life Index (PQLI)
- HDI – Human Development Index
- GDf – Gender Development Index
- TAI – Technological Achievement Index
- HPI – Human Poverty Index
- HCI – Human Consumer Index

Question 6. State the limitations of Economic growth.
Answer:
Limitations of the concept of economic growth:

- Economic growth takes into consideration only the quantitative change.
- In Economic growth, there is a rise in 'national income' and 'per capita income' only. Important aspects such as rise in institutional and psychological factors do not show any rise.

- The concept of economic growth is narrow and reflects only the rise in the rate and extent of output.
- The concept of economic growth is not of much use in understanding the welfare of the people.

Question 7. State the limitations of development.
Answer:
Limitations of the concept of economic development:
1. Economic development is a much broader concept than economic growth. It has the ability to reflect the progress of a nation. Even though in real sense, it cannot tell about the human development that is taking place. Whether human progress has taken place or not cannot be known from economic development.

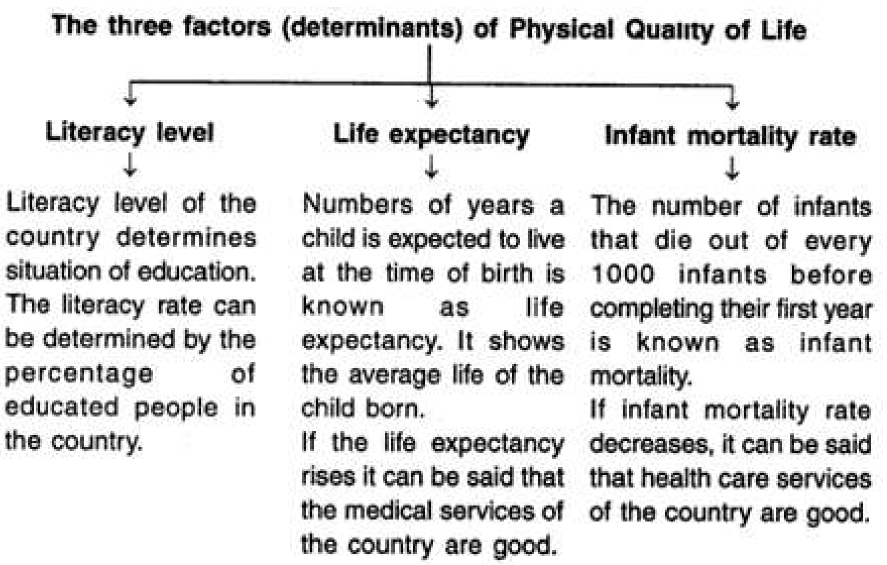
2. The way we can measure economic growth we cannot measure economic development. The reason for this is that economic development includes changes that took place in the society. It is very difficult to measure what changes have taken place and the quantitative method to measure them.

3. When economic development takes place, the standard of living of people improves. Now, although economic development is taking place in India today, there is not much improvement in the standard of living of the people. Hence, we cannot say that economic development means improvement in standard of living.

Question 8. What is life expectancy at birth?
Answer:
Morris included three indicators or say determinants for measuring the physical quality of life.
These three determinants are:

1. Literacy,
2. Life expectancy and
3. Infant mortality rate.

Thus, PQLI = Literacy level + Life expectancy index + Infant mortality index.



After 2003, three more aspects were included in PQLI and the Quality of Life Index (QLI) was prepared in the world.

Question 9. Between growth and development, which one is difficult to measure? Why?
Answer:

- Development is more difficult to measure compared to growth. Growth refers to quantitative change. It is always easy to measure quantitative aspects. Growth is measured by the means of statistical numbers and indicators such as per capita income, national income, etc.
- Development is more of a qualitative aspect. It covers areas like how far the living standard of people has improved? How far is the health of people improved? It is quite difficult and lengthy process to measure such aspects.

4. Give answers to the point for the following questions :

Question 1. What is Physical Quality of Life? What are the aspects included in it?
Answer:
Physical Quality of Life:

- Physical quality of life in human beings depends on the different types of goods and services that a person consumes over a period of time.
- The 'standard of consumption' refers to the consumption of goods and services by a person or group of people during a given period of time.

The consumption includes:

1. Consumption of food, fuel and other non-durable goods
2. Consumption of durable and semi durable goods
3. Consumption of service goods/use of services

- The standard of consumption or say the standard of living determines the physical quality of life.

- If the living standard of the people goes up, it can be said that physical quality of life has gone up.
  Aspects included in the Physical Quality of Life:
- The composition of goods and services consumed by an individual during a period of one year determines the physical quality of life.

Following are the determinants included in the list of goods and services:

1. Food (Proportion of calories, protein and fats)
2. Health and medical services (Proportion of doctor to population)
3. Housing and clothing (Number of rooms in a house, average number of people living in each room, etc.)
4. Education and entertainment (percentage of population getting primary secondary, education, entertainment facilities like TV, theatre, etc.)
5. Transport, communication and information services (the extent of road, railway lines, number of telephones per capita.)
6. Energy (Per capita energy consumption)
7. Population having access to pure drinking water
8. Average life expectancy
9. Infant mortality rate
10. Drainage facility

If there is an improvement in these 10 aspects or determinants then we can say that there is improvement in the physical quality of human life.

On the contrary, if improvement has not taken place then these determinants can be studied and it can be analyzed as to where improvement is needed and remedial measure to be adopted to increase the rate of development.

Every indicator can be relatively expressed. The value of each indicator is equally expressed on a scale of 0 to 100.

- The indicator which has the highest value is given 100 points.
- Note that developed countries give more importance to improve the physical quality of life.

Question 2. Discuss national income as an indicator of economic development.
Answer:
Growth-rate of national income:

- National income as an indicator of development says that a country is said to have attained economic development if there is a continuous increase in the real national income of the country for a long period of time.

- According to this indicator if the rate of rise in national income is high the development rate is said to be high and if the rate in rise of national income is slow, the rate of development is low.
  Moreover, if the national income does not rise it means that the country's development is stagnant whereas if national income decreases, it indicates that there is underdevelopment or negative development.
- For calculating this indicator 'real income' and not 'money(nominal) income' is taken into consideration. As a result, national income is calculated not at current prices but at constant prices.
  Tabular representation of national income as an indicator of development:
- Some countries have a faster growth-rate of national income compared to other countries. Hence, we can also say that even the economic development in such countries will be faster.
- Table given below shows that countries like Norway, America, Sri Lanka and Pakistan have slower annual growth rate of national income compared to India.
- Although today India is considered to be one of the fastest developing countries of the world but, it should be noted that countries like Norway and America have already grown drastically in the past. Hence, their growth now appears smaller at 2 to 3% per annum compared to that of India which is 7.3%

Country	Annual growth rate of national income (in %)
Norway	2.2
America	2.4
Sri Lanka	4.5
China	7.3
India	7.3
Pakistan	4.7

Question 3. Explain per capita income as an indicator of economic development.
Answer:
Per capita income as an indicator of economic development:

- The figure obtained by dividing gross national income of a country with the total population is called per capita income. In other words, per capita income is the average income per head.

- As can be seen in the definition 'per capita income' takes into consideration the population also. Hence, this indicator of development is superior to the 'national income'.
- According to this indicator, when the per capita income of a country increases for a long period that too continuously, it can be said that economic development has taken place.
- UNO (United Nations Organization) has recommended per capita income as an indicator of economic development.
- If per capita income is high and if its rate of growth is also high then we can say that development has taken place.
- If the county's per capita income rises at a faster rate, development is said to be fast. If per capita income grows at a slow rate, development is slow. If per capita income is constant there is stagnation and if per capita income falls, development is negative.
- The ultimate objective of economic development is to improve the standard of living of the people and to raise the human development. Per capita income is one of the best indicators in accomplishing this task.
- When we say development has taken place we mean that standard of living of the people has improved. If this has not improved then we cannot say that development has taken place in real sense.
- Now, rise in per capita income improves physical welfare of an individual and hence it is the real indicator of economic development.

Tabular representation of per capita income as an indicator of development:
Per-capita national income of few countries in 2014

Country	Per capita national income of 2014 (In US $) [As per Purchasing Power Parity]	Growth rate (in Percent)
Norway	64,992	1.1
America	52,947	1.6
Sri Lanka	9,779	3.5
China	12,547	6.7
India	5,497	6.0
Pakistan	4,866	2.6

Source: World Bank and Economic Survey, 2015-16

- It can be seen from the table that the per capita income of India in 2014, on the basis of purchasing power parity is US $ 5,497 which is lower than Norway, America, China and Sri Lanka.
- Compared to Norway, India's per capita income is 11 to 12 times lesser and hence Norway's growth is said to be higher than India's by 11 to 12 times. But the rate of growth of per capita income is higher in India and hence our rate of development is faster compared to Norway and America.
- Again we should not forget that although looking at the growth rate of per capita income the development of countries like Norway and America looks quite slower than India but these countries are highly developed with a very high per capita income.

Question 4. Explain in brief, the limitations of Physical Quality of Life Index.
Answer:
Limitations of PQLI:

1. PQLI is calculated on the basis of only 3 indicators. On the basis of just three indicators it cannot be said whether the country has actually developed or not. To get a correct picture we need to include other factors also.
2. PQLI gives only average. As per the equation of PQLI, the values obtained from three indicators are divided by 3 to obtain PQLI which is in the form of average. Average of three aspects of a country does not show the prominence or backwardness of each indicator. Hence, one cannot make decisions on the basis of averages.
3. If a country's present PQLI is high, it cannot be generalized that the economic development is high compared to other countries.
4. It is not right to give equal weightage of 100 to all indicators because all three aspects do not have same importance in human life.
5. Growth of income has high importance in physical quality of life index. PQLI does not consider this which is a major limitation.
6. The PQLI of rich countries rise at a slower rate because average life cannot increase beyond a particular limit.

Question 5. At present, India is growing or developing or both. Give answer by stating reasons.
Answer:

1. Today India is considered as the fastest developing economies of the world. If we look at the growth data than India's national income in 2014 has grown by 7.4%. This is much higher than even the most developed countries of Norway and America.
2. Similarly, if we look at the per capita income, then India's per capita income has grown by 6% in 2014. Percentage growth of India's per capita income is very high compared to highly developed countries of Norway and America which lie at 1.1% and 1.6% per capita income growth rate.

3. Looking at these figures one may surely say that India has done a lot of economic growth. But, by this we cannot say that India is a developed country.
4. The Human Development Index of 2014 says that India's HDI was 0.609 and it stood at 130th position out of the 180 countries. This is quite far than countries like Norway and America whose growth in national income and per capita income is quite less than India. In this regard we can say that though India has made good growth in its economy it lags far behind in the development.
5. Although economic development is taking place in India today, there is not much improvement in the standard of living of the people.
6. Hence, India is still a developing nation who has to travel long before earning the title of a developed nation.

5. Answer the following questions in detail :

Question 1. Explain with the help of examples, the difference between economic growth and economic development.
Answer:
The difference between economic growth and economic development can be understood from the following discussion.
Economic growth:

- When we use the term 'growth' it means we are talking about 'economic growth'.
- The increase in the total output of an economy in the long run is known as economic growth.
- By total output we mean that there is a continuous increase in the real national income and the real per capita income which we call as economic growth.
- Such growth is possible due to the increase in supply of factors of production like, land, capital, labour and entrepreneurial ability of the people and increase in the productivity of these factors.
- When the supply of factors of production, their availability, productivity and efficiency increase on a continuous basis it leads to rise in 'real national income' and 'real per capitp income'. This rise is known as economic growth. Since, rise in income can be measured numerically and also seen we consider economic growth as a 'quantitative change'.
- One can gauge a country's economic status by knowing its economic growth. Rate of economic growth also helps to compare the economies of two countries.

Economic development:

- When there is continuous rise in total output by the means of real national income and real per capita income of the economy i.e. quantitative aspects along with rise in qualitative aspects it is called economic development.

- Economic development is a much wider concept as compared to 'economic growth'. It is a continuous and multidimensional process which includes economic growth, economic welfare and economic progress.
- When we say that economic development is taking place it means that apart from monetary aspect the country is also showing progress in economic and social structure.
- Thus, during economic development, along with economic progress, progress takes place in the society too.
- Change is seen even in the structure of national income. The contribution of agriculture as percentage of the total national income decreases whereas the contribution of industry and service sector increases.
- The disguised unemployed of agricultural sector get employed in other sectors.
- The country starts using modern technology which saves time and money and hence increases productivity.
- The country also innovate various new seeds for agriculture. This changes institutional structure which then changes the methods of production and distribution.
- Slowly and gradually there is reduction in poverty, unemployment and inequalities.

Conclusion:

- Economic growth is a very narrow concept and it mainly focuses on increasing the real national income and per capita income. On the other hand economic growth is a much wider concept which over and above the objectives of economic growth also aims at attaining social welfare of the people.
- Economically weaker countries first aim at economic growth. Once they attain a level, they start aiming for economic development.

Question 2. Explain an improvement in the Physical Quality of Life Index as an indicator of economic development.

Answer:

Physical Quality Life Index (PQLI):

- Increase in national income and per capita income has a number of limitations. Hence, these two are not the real indicators of economic development.
- If the income of the country has increased but if the rise is seen only by a limited class of people then it cannot be termed as development.
- The development of a country should be such that the living standards of the poor rise and the basic requirements of the citizens are fulfilled.
- Keeping these things in mind Morris Davis Morris developed the Physical Quality of Life Index (PQLI).
- PQLI attempts to measure the quality of life or well-being of a country. This index refers betterment of physical quality of life of human beings as economic development.

- In order to derive the index of PQLI, the level of physical quality of life i.e. PQL is determined through various indicators.
- If a country's physical quality of life is higher than that of the other country, then that country is considered as more developed.
- Morris included three indicators or say determinants for measuring the physical quality of life. These three determinants are
  1. Literacy,
  2. Life expectancy and
  3. Infant mortality rate.
- Thus, PQLI = Literacy level + Life expectancy index + Infant mortality index.

The three factors (determinants) of Physical Quality of Life

Literacy level	Life expectancy	Infant mortality rate
Literacy level of the country determines situation of education. The literacy rate can be determined by the percentage of educated people in the country.	Numbers of years a child is expected to live at the time of birth is known as life expectancy. It shows the average life of the child born. If the life expectancy rises it can be said that the medical services of the country are good.	The number of infants that die out of every 1000 infants before completing their first year is known as infant mortality. If infant mortality rate decreases, it can be said that health care services of the country are good.

After 2003, three more aspects were included in PQLI and Quality of Life Index (QLI) was prepared in the world.

Question 3. What are the factors included in the human development index? Explain them.

Answer:

Determinants of Human Development Index:

- To keep things simple, HDI is prepared using three factors namely,
  (1) Life expectancy,
  (2) Education and
  (3) Income.
- Life expectancy refers to the expected number of years a child will live at the time of birth, data on education depicts social achievements whereas income data depicts the standard of living.
- Note that while calculating HDI instead of considering absolute values, average of all the three values is measured.

HDI

Life Expectancy	Knowledge (Literacy or Education)	Standard of living (Per capita income)
It is measured on the basis of the expected number of years a child will live at the time of birth. If it is less than 50 years, that country is said to be deficient in health. Higher the life expectancy better the HDI.	To know the quantum of knowledge adult literacy in percent is calculated. Literacy is estimated among people in the age group 15 years and above. Two aspects are included in this. They are: (A) Actual number of years of schooling and (B) Expected number of years of schooling. The gap between expected and actual number of years of schooling is taken to derive the value of this index.	Standard of living refers to the availability of pure drinking water, medical services, good sanitation, infant mortality rate percentage of undernourished and malnourished children, per capita calorie availability per day, mortality rate of infants below 5 years of age, protein and fat availability, etc. These factors depend on income. Hence, good standard of living is measured on the basis of income. Income index is measured on the basis of per capita gross national income at PPP.

Question 4. Compare PQLI and HDI and show which indicator is superior? Why?
Answer:

1. PQLI was developed to overcome the various limitations of the previous scales.
2. It was decided to develop an index which would consist of composite indicators to measure development in terms of meeting the basic needs of the majority of the population of a country or in terms of 'quality of life'. This led to the development of a new index called Physical Quality of Life Index.
3. Morris D. Morris developed a single composite index using three indicators life expectancy at age one, infant mortality and literacy.
4. For each indicator, the performance of a country is rated on a scale of 1 to 100, where 1 represents the 'worst' performance and 100 the 'best' performance.
5. Once a country's performance in life expectancy, infant mortality and literacy has been rated on a scale of 1 to 100, the composite index of Physical
6. Quality of Life Index (PQLI) for the country is calculated by averaging the three ratings, giving equal weightage to each.

Limitation of PQLI and development of HDI:
1. A major criticism of the PQLI, however, is that it fails to include many other , social and psychological characteristics suggested by the term 'quality of life'.

2. The index has also been criticized on the grounds that it lacs a proper reasoning in giving equal weightage to all the three indicators and the possibility that measures such as life expectancy and infant mortality reflect practically the same phenomenon.

3. To overcome the limitations of PQLI and other indicators, the Human Development Index (HDI) was developed.

4. The UNDP has defined human development as “a process of enlarging people’s choices”. This depends not only on income but also on other social indicators. In contrast to this PQLI considered social indicators separately.

5. The three basic indicators are: longevity, knowledge, and a decent standard of living. Longevity is measured by life expectancy at birth; knowledge is measured by a combination of the adult literacy rate and standard of living is measured by GDP per capita (in purchasing power parity US$).

6. Before the HDI is computed, an index needs to be created for each dimension, the life expectancy index, education index and income index. Performance in each dimension is expressed as a value between 0 and 1.

7. The literacy index and gross enrolment index are given two-third and one-third weightage respectively to arrive at the education index. The HDI is calculated as a simple average of the three.

8. Countries are then classified into three categories:

1. High human development (HDI 0.800 and above),
2. Medium human development (HDI 0.799-0.500) and
3. Low human development (HDI below 0.500).

9. The beauty of HDI is that once the increase in income passes the cut-off point, it is faced with diminishing returns and this makes it necessary to let the social indicators determine the HDI. Thus, the index is tuned to the growing concern among nations, regarding human development.

10. The HDI, unlike other indices which measure absolute levels, ranks countries in relation to each other. The index takes the progress made from the minimum towards the maximum.

11. The distance travelled is expressed in percentage terms. A clear picture emerges of the wide disparities that exist in the levels of human development between the developing and the developed countries.

12. The same exercise is repeated in respect to the other two components of the index. The distance travelled in each case is then used as the basis for combining the three devices, and this gives a common denominator to rank countries on a uniform scale.

Thus, looking to the overall manner in which HDI is computed and the indicators that it considers we can rightly say that HDI is better over PQU.

Question 5. Explain in short the indicators of economic development.
Answer:
Indicators of development:

- A numerical value that shows the progress that acountry has made in areas such as health, education, gender equality, etc. Bvknown as an indicator of development.
- These indicators work as measuring rod or standards to understand whether a country has made progress or not and if yes then how far.
- These indicators which measure the rate of economic development and its extent can be presented in numerical and statistical terms.

Few of the indicators of development are discussed below:
1. National income:
National income as an indicator of development says that a country is said to have attained economic development if there is a continuous increase in the real national income of the country for a long period of time.

- According to this indicator if the rate of rise in national income is high the development rate is said to be high and if the rate in rise of national income is slow, the rate of development is low.
- Moreover, if the national income does not rise it means that the country's development is stagnant whereas if national income decreases, it indicates that there is underdevelopment or negative development.
- For calculating this indicator 'real income' and not 'money (nominal) income' is taken into consideration. As a result, national income is calculated not at current prices but at constant prices.

2. Per capita income:

- The figure obtained by dividing gross national income of a country with the total population is called per capita income. In other words, per capita income is the average income per head.
- As can be seen in the definition 'per capita income' takes into consideration the population also. Hence, this indicator of development is superior to the 'national income' as an indicator.
- According to this indicator, when the per capita income of a country increases for a long period continuously, it can be said that economic development has taken place.
- UNO (United Nations Organization) has recommended per capita income as an indicator of economic development.
- If per capita income is high and if its rate of growth is also high then we can say that development has taken place.

- If the county’s per capita income rises at a faster rate, development is said to fast. If per capita income grows at a slow rate, development is slow. If per capita income is constant there is stagnation and if per capita income falls, development is negative.
- The ultimate objective of economic development is to improve the standard of living of the people and to raise the human development. Per capita income is one of the best indicators in accomplishing this task.
- When we say development has taken place we mean that standard of living of the people has improved. If this has not improved then we cannot say that development has taken place in real sense.
- Now, rise in per capita income improves physical welfare of an individual and hence it is the real indicator of economic development.

3. Physical Quality Life Index (PQLI):

1. Increase in national income and per capita income has a number of limitations. Hence, these two are not the real indicators of economic development.

2. If the income of the country has increased but if the rise is seen only by a limited class of people then it cannot be termed as development.

3. The development of a country should be such that the living standards of the poor rise and the basic requirements of the citizens are fulfilled.

4. Keeping these things in mind Morris Davis Morris developed the Physical Quality of Life Index (PQLI).

5. PQLI attempts to measure the quality of life or well-being of a country.

6. This index refers betterment of physical quality of life of human beings as economic development.

7. In order to derive the index of PQLI, the level of physical quality of life i.e. PQL is determined through various indicators.

8. If a country’s physical quality of life is higher than that of the other country, then that country is considered as more developed.

9. Morris included three indicators or say determinants for measuring the physical quality of life. These three determinants are

   1. Literacy,
   2. Life expectancy and
   3. Infant mortality rate.

Thus, PQLI = Literacy level + Life expectancy index + Infant mortality index.

4. Human Develooment Index:

- The most recent indicator of development is the Human Development Index.
- When United Nations Development Programme (UNDP) presented the Human Development Report (HDR) in 1990 it also introduced Human Development Index as a measure of development.
- HDI emphasizes on both economic as well as non-economic measures.
- Indian economists have also made a major contribution in preparing HDI.
- The index is prepared by calculating the efforts made by each country for country's development.
- Improvements were introduced in the year 2010 in the minimum and maximum values of HDI. Since then the new values were used to measure HDI.

Determinants of Human Development Index:

- To keep things simple, HDI is prepared using three factors namely,
  1. Life expectancy,
  2. Education and
  3. Income.
- Life expectancy refers to the expected number of years a child will live at the time of birth, data on education depicts social achievements whereas income data depicts the standard of living.
- Note that while calculating HDI instead of considering absolute values, average of all the three values is measured.