HARI VIDYA BHAWAN

Date – 30/03/2020

WORK SHEET-03

SUBJECT – MATHEMATICS

CLASS – IX

CHAPTER – 01. NUMBER SYSTEM

SESSION - (2020-21)

1. Express the following in the form p/q, where p and q are integers and $q \neq 0$.
   (i) 0.6666….. (ii) 0.47777….
2. Classify the following numbers as rational or irrational:
   (i) 23 (ii)$\sqrt{225}$ (iii)0.3796 (iv)7.478478... (v)1.101001000100001...
3. Simplify each of the following expressions:
   (i) $(3+\sqrt{5})(2+\sqrt{7})$ (ii) $(5+\sqrt{7})(5-\sqrt{7})$ (iii) $\left(\sqrt{3}+\sqrt{5}\right)^2$ (iv) $\left(\sqrt{7}-\sqrt{3}\right)^2$
4. Represent $\sqrt{8.2}$ on the number line.
5. Visualize 2.45 on the number line, using successive magnification. (**activity**)

NOTE:

- **For question 1** please refer **NCERT TEXTBOOK** example 7&8.
- **For question 3:**
  Use identities:
  (1) (a + b)(c+ d) = a x c + a x d +b x c + b x d .
  (2) (a + b)(a – b) = a^2 - b^2
  (3) $(a + b)^2 = a^2 + b^2 + 2ab$
  (4) $(a - b)^2 = a^2 + b^2 - 2ab$
- **For question 4** please refer **NCERT TEXTBOOK** page number 21.
- **For question 5** please refer **NCERT TEXTBOOK** page number 16 & 17.
- **Rational numbers** are the numbers that can be written in the form of p/q where q is not equal to zero. i.e (they are terminating decimals or non-terminating but repeating decimals).
  Examples: 5/7, 9/1, 0, 4.25(terminated decimal), 3.3333… (non-terminating but repeating decimal) etc.
- **Irrational numbers** are the numbers that cannot be written in the form of p/q. i.e (they are non-terminating & non-repeating decimals).
  Examples: 1.01011011101111…, 3.14159265358979… (π)(non-terminating & non-repeating decimals).

HARI VIDYA BHAWAN

SUBJECT- SOCIAL SCIENCE

CLASS – IX

SESSION – 2020 – 21

WORK SHEET -3

Date – 30-03-2020

ECONOMICS (CH-1) The Story of VillagePalampur

NOTES (Do in your notebook)

INTRODUCTION

- Palampur is a small hypothetical village having about 450 families. It is 3 km away from Raiganj — big village. Shahpur is the nearest town to the village.
- The village is well connected with neighbouring villages and towns. The village is well connected by the road and most of the houses are electrified.
- It has two primary schools and one high school.
- There is a government primary health Centre and a primary dispensary.

Main Production Activities

Farming is the main production activity in the village Palampur. Most of the people are dependent on farming for their livelihood. Non-farming activities such as dairy, small-scale manufacturing (e.g. activities of weavers and potters, etc.), transport, etc., are carried out on a limited scale.

Factors of Production (Or Requirements for Production of Goods and Services)

Land, labour, and capital are the basic requirements for production of goods and services which are popularly known as factors of production.

- Land includes all free gifts of nature,e.g., soil, water, forests, minerals, etc.

- Labour means human effort which of course includes physical as well as mental labour.

- Physical capital is the third requirement for production. Physical capital includes fixed capital (e.g. tools, machines, building, etc.)

- Working capital includes raw materials such as seeds for the farmer, yarn for the weaver. and money in hand.

- Human capital refers to human knowledge and enterprise which are required to put together land, labour and physical capital to produce an output.

Very Short Questions: (Do in your notebook)

Q1. What are known as factors of production?

Q2. What is the aim of production?

Q3. What are 'raw materials and money in hand 'called?

a) Working capital
b) Fixed capital
c) Physical capital
d) Human capital

ACTIVITY :- Modern Farming Methods: HYV seeds, chemical fertilizer etc. (Draw Diagram)

(page no- 4 NCERT book)

HARI VIDYA BHAWAN

Date – 30/03/2020

WORK SHEET-04

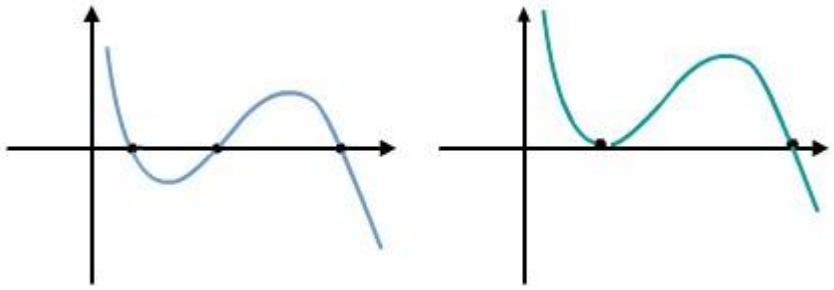
SUBJECT – MATHEMATICS

CLASS – X

CHAPTER – 2. POLYNOMIALS

SESSION - (2020-21)

1. Classify the following as linear, quadratic and cubic polynomials:
   (I) $X^2 + x$ (ii) $x - x^3$ (iii) $y + y^2 + 4$ (iv) $1 + x$
2. Look at the graphs in Figure given below. Each is the graph of y = p(x), where p(x) is a polynomial. For each of the graphs, find the number of zeroes of p(x).



3. Find the zeroes of the polynomial $x^2 - 3$ and verify the relationship between the zeroes and the coefficients.
4. Find a quadratic polynomial, the sum and product of whose zeroes are–3 and 2, respectively.
5. Write a short note after watching video (the great math mystery) visit the link given bellow. (**Activity**)
   https://www.youtube.com/watch?v=mpcpzXuzdQk&t=37s

NOTE :

- **For question** 01 please refer 9th class **NCERT TEXTBOOK**.
- **For question** 02 The total number of times curve will intersect the x-axis will be the number of zeroes for p(x).
- **For questions** 03 & 04 please refer **NCERT TEXTBOOK** Examples.
- **For question** 05 please visit www.youtube.com (watch documentary).

HARI VIDYA BHAWAN

SUBJECT- SOCIAL SCIENCE

CLASS – X

SESSION – 2020 – 21

WORK SHEET -4

Date- 30-03-2020

GEO (CH-1) RESOURCES AND DEVELOPMENT

NOTES (Do in your notebook)

Resources

Everything in our environment which can be used to satisfy our needs and is technologically accessible, economically feasible and culturally acceptable is termed as 'Resource'. Human beings themselves are essential components of resources. They transform material available in the environment into resources and use them.

Classification of Resources

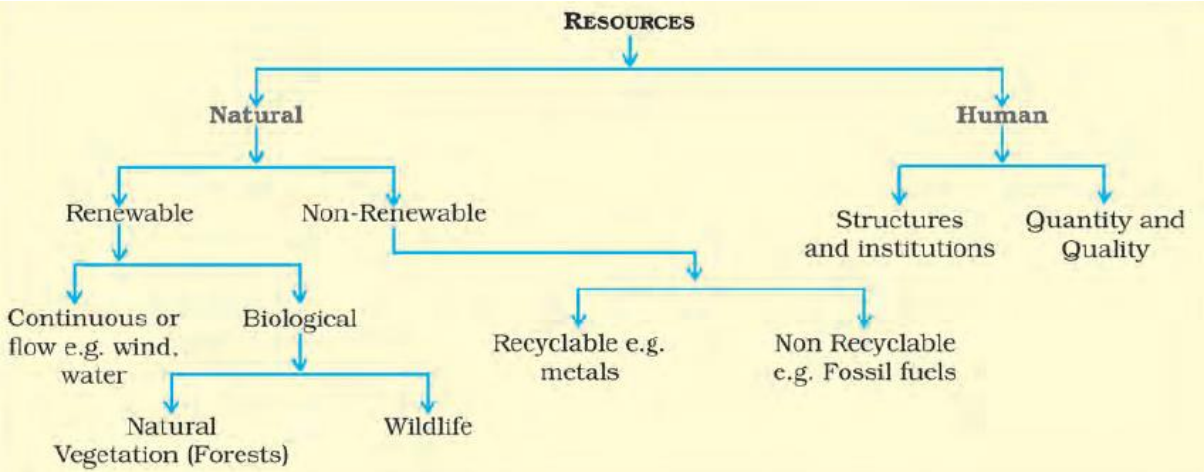
Resources can be classified in the following ways:

(a) On the basis of origin – biotic and abiotic

(b) On the basis of exhaustibility – renewable and non-renewable

(c) On the basis of ownership – individual, community, national and international

(d) On the basis of the status of development – potential, developed stock and reserves



(a) On the Basis of Origin – Biotic and Abiotic

Biotic Resources are obtained from the biosphere and have life.

Eg: Human beings, flora and fauna, fisheries, livestock etc.

Abiotic Resources: All those things which are composed of non-living things are called abiotic resources.

Eg: rocks and metals.

(b) On the Basis of Exhaustibility – Renewable and Non-Renewable

The resources which can be renewed or reproduced by physical, chemical or mechanical processes are known as Renewable or Replenish able Resources. The renewable resource may further be divided into continuous or flow.

Eg: Solar and wind energy, water, forests and wildlife, etc.

Non-Renewable Resources occur over a very long geological time. These resources take millions of years in their formation. Some of the resources like metals are recyclable and some like fossil fuels cannot be recycled and get exhausted with their use.

Eg: Minerals and fossil fuels.

(c) On the Basis of Ownership – Individual, Community, National and International

Individual Resources are owned privately by individuals. In villages people own lands whereas in urban areas people own plots, houses and other properties.

Eg: Plantation, pasture lands, ponds, water in wells etc.

Community Owned Resources are accessible to all the members of the community.

Eg: Grazing grounds, burial grounds, public parks, picnic spots, playgrounds etc.

National Resources are owned by a nation or country. All the minerals, water resources, forests, wildlife, land within the political boundaries and oceanic area up to 12 nautical miles (22.2 km) from the coast termed as territorial water and resources therein belong to the nation.

Eg: Roads, canals, railways etc.

International Resources are regulated by international institutions. The oceanic resources beyond 200 nautical miles of the Exclusive Economic Zone belong to open ocean and no individual country can utilise these without the concurrence of international institutions.

(d) On the Basis of the Status of Development – Potential, Developed Stock and Reserves

Potential Resources are the resources which are found in a region but have not been utilised.

Eg: Rajasthan and Gujarat have enormous potential for the development of wind and solar energy, but so far these have not been developed properly.

Developed Resources: Resources which are surveyed and their quality and quantity have been determined for utilisation. The development of resources depends on technology and level of their feasibility.

E.g Gold

Stock Resource: Materials in the environment which have the potential to satisfy human needs but human beings do not have the appropriate technology to access these, are called Stock.

Eg: Hydrogen can be used as a rich source of energy. But we do not have advanced technology to use it.

Reserves Resource : are the subset of the stock, which can be put into use with the help of existing technical 'know-how' but their use has not been started. These can be used for meeting future requirements.

Eg: Water in the dams, forests etc. is a reserve which can be used in the future.

Very Short Questions (Do in your notebook)

Q1. What is a Resource?

Q2.On the basis of its origin, resources can be classified into.

a) Renewable and non-renewable
b) Biotic and abiotic
c) Recyclable and non-recyclable

Q3. Resources are ……..accessible, economically and……acceptable.

Q4. What are National Resources.

ACTIVITY:- Make a flow chart of "CLASSIFICATION OF RESOURCES".