Economics of Class 10

Ch-5 Meaning and Scope of Public Finance

Answer the following question:

Q1: What do you mean by public finance?

Q2: What are the scopes of public finance?

Q3: What do you mean by public expenditure?

Q4: What do you mean by public revenue?

Q5: What do you mean by public debts?

(Mon) 4/5/20, CL-X, EVS

Ch-5 Topic (Global Food Security)

Home Assignment.....

1) What is global food security?
2) Why is global food security is important?
3) How is global food security achieved?
4) What are the five components of food security?
5) Why food security difficult?
6) Where is food security a problem?
7) Is food security important?

.....(To be continued next class....)

class X

অমলকান্তি

নীরজনাথ চক্রবর্তী

(কবিতা)

* 'সে একদিন বোঁচকা হতে চেয়েছিল'

i) মূল বক্তব্যের নাম লিখ।

ii) 'সে' বলতে কার কথা বলা হয়েছে।

iii) সে কেন বোঁচকা হতে চেয়েছিল।

iv) 'তার সম্পর্কে বক্তা কি বলেছেন।

(উত্তর)

i) মূল বক্তব্যের নাম 'অন্ধজন কারাগার',

ii) 'সে' বলতে কবির সহপাঠী অমলকান্তির কথা বলা হয়েছে।

iii) সে আর অমলকান্তি পড়াশোনায় ভালো ছিলো না, প্রতিদিন দেরি করে ক্লাসে আসতো, অধ্যাপক বিজ্ঞের প্রশ্নে তিনি জানলার দিকে চেয়ে থাকতো, তিনি তাই বুদ্ধিমান ছাত্রদের মতো ডাক্তার, উকিল, মাস্টার, হতে চাননি, তাঁর সীমিত জ্ঞানবুদ্ধির ক্ষমতা অনুযায়ী বোঁচকা হতে চেয়েছিলেন,

iv) বক্তা অমলকান্তি সম্পর্কে বলেছেন— অমলকান্তি পড়াশোনায় ভালো ছিলো না, দেরি করে ক্লাসে আসতো, পড়া পারতো না, অধ্যাপক বিজ্ঞের প্রশ্ন করলে জানলায় তাকিয়ে থাকতো, তিনি বোঁচকা হতে চেয়েছিলো, এখানে তার সীমিত জ্ঞানবুদ্ধির ফলে এবং প্রকৃতির প্রতি তাঁর ভালো লাগত, কিন্তু তিনি বোঁচকা হতে পারেননি— অন্ধজনের এটা দুর্ভাগ্যের কথা ছিলো।

H.W রচনা:- 'কেন সেখানে এত ঘন্টা'

4.5.2020 class _ 10

बड़े घर की बेटी

कहानी का परिचय।

प्रेमचंद जी द्वारा रचित ' बड़े घर की बेटी ' एक संयुक्त परिवार की कहानी है । यह कहानी सामाजिक जीवन पर आधारित है । जिसके माध्यम से लेखक समस्त पाठको को सामाजिकता के ज्ञान से अवगत कराना चाहते है । बेनीमाधव गाँव के जमींदार और नंबरदार थे। उनके पितामह किसी समय के बड़े धन- धान्य से सम्पन्न थे ।बेनी माधव सिंह के दो पुत्र है। बड़े पुत्र का नाम श्रीकंठ सिंह और छोटे का नाम लालबिहारी सिंह है ।बड़े बेटे ने बी.ए. की डिग्री ली है।छोटा बेटा दोहरे बदन का सजीला जवान है । श्री कंठ सिंह प्राचीन सभ्यता के प्रेमी तथा सयुंक्त परिवार के उपासक थे। उनकी पत्नी आनन्दी एक उच्च कूल की लड़की थी ।आनन्दी के पिता के नाम भूपसिंह था। वे एक छोटी सी रियासत के ताल्लुकेदार थे ।आनन्दी के मायके में सभी प्रकार की सुख सुबिधायें थी पर उसके ससुराल में उसे ठीक विपरीत परिस्तिथियों का सामना करना पड़ा ।उसने शीघ्र ही वहाँ के माहौल में अपने आप को ढाल लिया ।

इस कहानी के मध्यम से यह संदेश देने का प्रयास किया गया है कि स्त्रियाँ परिवार की धुरी होती है ।उनके समुचित व्यवहार से ही परिवार में स्नेह एवं आपसी सामंजस्य की भावना को स्थपित किया जा सकता है ।स्त्रीयों । में ही यह छमता विद्यमान होती है कि वे जटिल परिस्थितियों में भीअपनी तर्कयुक्त बुद्धि के सहयोग से उचित समाधान खोज लेती है ।

Home work

Q) आनन्दी और श्रीकंठ सिंह का चरित्र चित्रण करे ।

Q) कहानी के शीर्षक की सार्थकता स्पष्ट करें।

Mathematics- Probability

Class 10

Assignment:- Date:-04.05.20

Experiment- An action which results in some (well defined) outcomes is called an experiment.

Random experiment- An experiment is called random if it has more than one possible outcome and it is not possible to tell the outcome in advance.

e.g, . Tossing a coin

. Tossing two coins simultaneously

. Throwing a dice

. Drawing a card from a pack of 52 cards

Sample space- The collection of all possible outcomes of an experiment is called sample space.

Event- A subset of the sample space associated with a random experiment is called an event.

Probability of an event E, written as P(E), is defined as

$$P(E) = \frac{\textit{number of outcomes favourable to E}}{\textit{total number of possible outcomes}}.$$

Let E be an event then the number of outcomes favourable to E is greater than or equal to zero and is less than or equal to total number of outcomes. It follows that $0 \le P(E) \le 1$.

Example 1. A child's game has 8 triangles of which 3 are blue and rest are red, and 10 squares of which 6 are blue and rest are red. One piece is lost at random. Find the probability that it is a

(*i*) triangle (*ii*) square

(*iii*) square of blue colour (*iv*) triangle of red colour.

Solution. A child's game has 8 triangular pieces and 10 squared pieces. So, total number of pieces in the game = 8 + 10 = 18.

One piece is lost at random means that all pieces are equally likely to be lost. Therefore, the sample space of the experiment has 18 equally likely outcomes.

(*i*) Number of triangular pieces = 8.

$\therefore$ P (triangle) $= \frac{8}{18} = \frac{4}{9}$.

(*ii*) Number of squared pieces = 10.

$\therefore$ P (square) $= \frac{10}{18} = \frac{5}{9}$.

(*iii*) Number of blue squared pieces = 6.

$\therefore$ P (square of blue colour) $= \frac{6}{18} = \frac{1}{3}$.

(*iv*) Number of red coloured triangular pieces

= total number of triangular pieces – blue coloured triangular pieces

= 8 – 3 = 5

$\therefore$ P (triangle of red colour) $= \frac{5}{18}$.

Example 2 Gopi buys a fish from a shop for his aquarium. The shopkeeper takes out one fish at random from a tank containing 5 male fish and 8 female fish. What is the probability that the fish taken out is a male fish?

Solution. As a fish is taken out at random from the tank, all the outcomes are equally likely.

Total number of fish in the tank = 5 + 8 = 13.

∴ Total number of possible outcomes = 13.

Let E be the event 'taking out a male fish'. As there are 5 male fish in the tank, the number of favourable outcomes to the event E = 5.

$$\therefore \quad P(E) = \frac{\text{number of favourable outcomes to E}}{\text{total number of possible outcomes}} = \frac{5}{13}.$$

Example 3 A box contains cards bearing numbers from 6 to 70. If one card is drawn at random from the box, find the probability that it bears

(*i*) a one digit number (*ii*) a number divisible by 5

(*iii*) an odd number less than 30 (*iv*) a composite number between 50 and 70.

Solution. Cards bear numbers from 6 to 70 (both inclusive).

So, sample space = {6, 7, 8, 9, ..., 70}

Total number of cards = 65 (70 – 5)

Thus, the sample space has 65 equally likely outcomes.

(*i*) The numbers from 6 to 70 which are one digit are 6, 7, 8, 9.

Let A be the event 'cards have one digit number',

then E = {6, 7, 8, 9} and number of favourable outcomes to E = 4

$$\therefore \quad P(\text{one digit number}) = P(E) = \frac{4}{65}.$$

(*ii*) The numbers from 6 to 70 which are divisible by 5 are

10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70.

The number of such numbers = 13.

$$\therefore \quad P(\text{a number divisible by 5}) = \frac{13}{65} = \frac{1}{5}.$$

(*iii*) The numbers from 6 to 70 which are odd and less than 30 are

7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29.

The number of such numbers = 12.

$$\therefore \quad P(\text{an odd number less than 30}) = \frac{12}{65}.$$

(*iv*) The numbers from 6 to 70 which are composite numbers between 50 and 70 are

51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 64, 65, 66, 68, 69.

The number of such numbers = 15.

$$\therefore \quad P(\text{a composite number between 50 and 70}) = \frac{15}{65} = \frac{3}{13}.$$

Home Work-

1. A bag contains a red ball, a blue ball and a yellow ball, all the balls being of the same size. Anjali takes out a ball from the bag without looking into it. What is the probability that she takes out

   (*i*) yellow ball? (*ii*) red ball? (*iii*) blue ball?

2. A box contains 600 screws, one-tenth are rusted. One screw is taken out at random from this box. Find the probability that it is a good screw.

3. In a lottery, there are 5 prized tickets and 995 blank tickets. A person buys a lottery ticket. Find the probability of his winning a prize.

4. 12 defective pens are accidentally mixed with 132 good ones. It is not possible to just look at a pen and tell whether or not it is defective. One pen is taken out at random from this lot. Determine the probability that the pen taken out is a good one.

5. If the probability of winning a game is $\frac{5}{11}$, what is the probability of losing?

CLASS-X

SUBJECT – GEOGRAPHY

CHAPTER-AGRICULTURE I

ASSESMENT-8

Introduction

The term Agriculture is derived from two Latin words 'ager' means field and 'culture' means cultivation. Agriculture broadly means- man's management of the environment to produce food.

Importance of agriculture

- Agriculture still forms the backbone of Indian economy. It provides food and fodder to human beings and livestock.
- Agriculture is also the source of raw material for many key industries, e.g. sugar, textile and edible oil.
- To improve agriculture the demand for tractors, harvesters, threshers and chemical fertilizers and pesticides increases. The agriculture not only supplies raw material to the industries, it acts as a consumer of industrial products.
- It provides employment to millions of people.

Features of Indian agriculture-

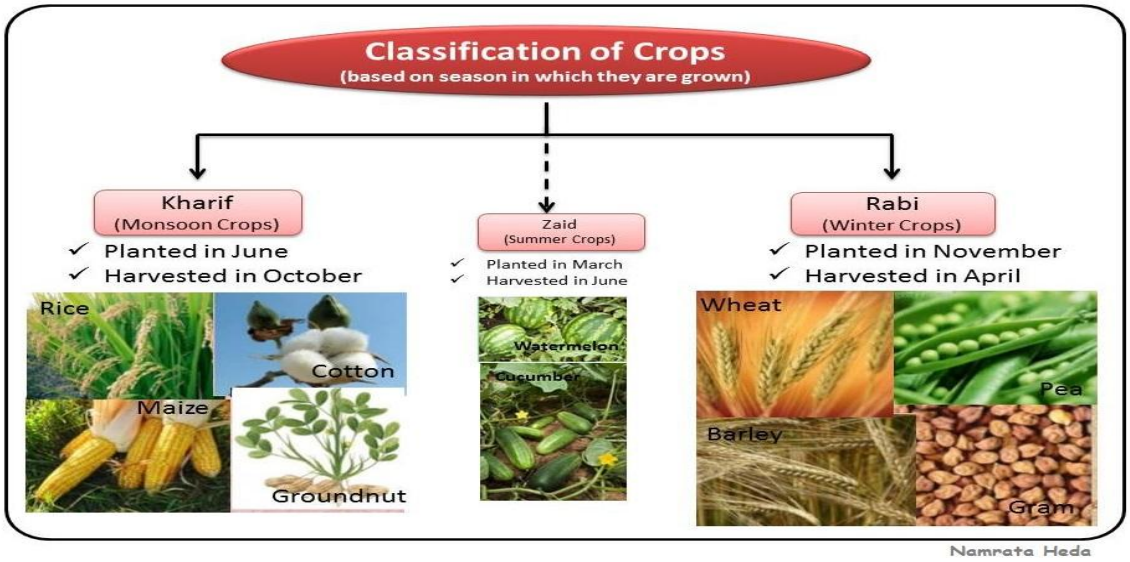
- Indian agriculture has a dependency on the monsoon rainfall.
- India's vast relief, varying climate and soil condition produce a variety of crops.

- Agriculture is the main source of income for more than three-fourths of the population that lives in the villages.
- There are three main growing seasons in India-the karif season, the Rabi season and the zaid season.
- Agriculture and rearing of animals complement to each other in the country.

Agriculture pattern- crop season-

India has three agricultural seasons. These are:-

- **Kharif**- Ground is prepared in April-May and seeds are shown in June or arrival of rain Crops are harvested in October-November. Crops are rice, maize, joar, bajra, cotton, ground nut, jute.
- **Rabi**-The ground is prepared by the end of October and November and harvesting takes place in March. Crops are wheat, barley, jowar, graam, oil seeds.
- **Zaid**-It is the summer cropping season in which crops like rice, maize, ground nut, vegetables and fruits.



The Green Revolution

The Green Revolution refers to the spectacular increase in the production of food grains in the 1960s in India. This revolution led to remarkable increase in productivity and has made India self-sufficient in food production.

Salient features/ Merit

1. There was a marked decrease in shifting agriculture in many parts of India.
2. The genetically improved high yielding varities of seeds were most important component of green revolution.
3. Green Revolution led to an increase of the fertilizers and pesticides manufacturing industries.
4. There was a significant expansion in the network of canals for irrigation.
5. Farmers got the opportunity for increasing their income.

Demerits-

1. The benefits of the Green Revolution were confident to rich farmers in Punjab, Haryana, and U.P.
2. This agricultural process need abundant water supply but that is quite problematic.
3. The cost of fertilizers, pesticides and machinery is very high.
4. New machinery replaced manual labour which caused unemployment.
5. Green Revolution has increased over dependency on machines.

Problems of Indian Agriculture

1. Small and fragmented land holding are the most common features of Indian Agriculture. It creates problem in the time of irrigation and uses of machine.
2. A majority of farmers are unable to use good quality of seeds, because of their exorbitant price.
3. Without use of proper manure has lead to depletion of soil resulting in low productivity.
4. Due to lack of proper education farmers are unable to use biocides and to protect crops from different diseases.
5. Most of the Indian farmers are following traditional way of farming.
6. Due to erratic nature of rainfall agricultural production is affected.
7. Over increasing of population give pressure on land and crop production decreases.

Types of Farming in India

1) Subsistence farming-

It is a system in which the farmer produces exclusively for his own consumption. In some places of India agriculture is still of subsistence type. This involves the cultivation of food crops like rice, wheat and pulses.

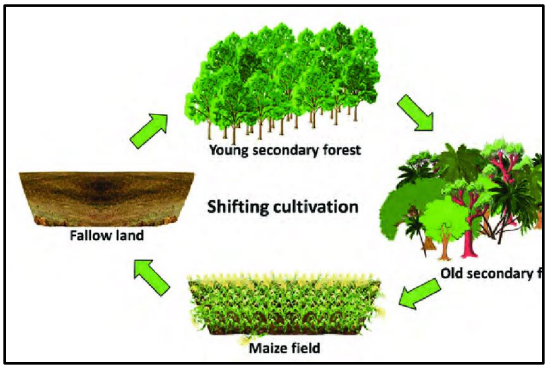
Types

a) Primitive Type –

It is used to be practiced by the backward people of equatorial areas. Farmers use very simple tools in this process.

b**) Shifting agriculture-**

In this type of agriculture a patch of forest land is cleared by burning and crops are grown. That is why it is known as slash and burn agriculture or Jhooming. This agriculture is mostly practiced in North East India. Deforestation and soil erosion are caused by this process.



c) **Crops Rotation-**

When different types of crops are being alternatively grown on the same land in a specific order to have more effective control of weeds, pests, diseases and more economical utilization with of soil fertility, then it is known as crop rotation.

2) <u>Commercial Agriculture-</u>

In commercial agriculture crops are grown on a large scale area mainly for selling the product in vast domestic and foreign markets.

Types

a) Intensive Commercial Farming

It is kind of agriculture, where a lot of money and labours are used to increase the yield that can be obtained per area. It is practiced in Punjab, Haryana, and Uttar Pradesh.

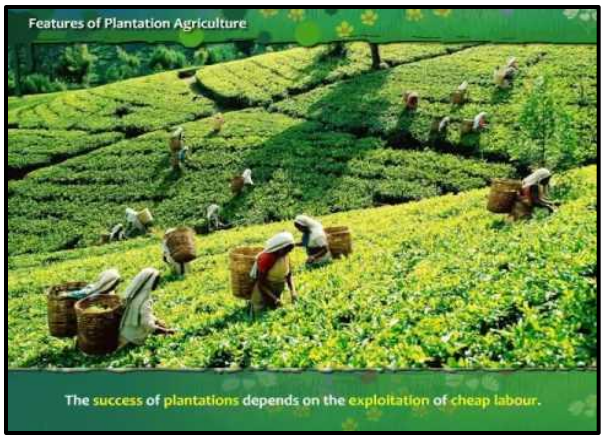
Advantages

1) High crop yield.

2) More than one crop can be grown in the same field.

b) Extensive Commercial Farming

In this system relatively small amount of capital and labour are invested to a large area or land. It is mostly mechanized as labour is very expensive. It is practiced usually in the Terai region of North India.



3) **<u>Plantation Farming</u>**

A place where a single crop is planted over a very large area is known as plantation farming. It is usually common in tropical and sub-tropical areas. Major plantation crops are tea, coffee, rubber, sugar cane, bananas, etc.

Main Features

- Large Capital
- Vast expensive estates
- Sophisticated farm machinery
- Good transport facilities

4) <u>Mixed Farming</u>

In this type of farming cultivation of crops and rearing of livestock is done simultaneously. It is most common in highly developed countries like Western Europe, South East Canada.

Features-

i. Advanced technology is used for practicing this agriculture.
ii. Use of best facility seeds, chemical fertilizers, and modern machinery gives higher yielding.
iii. Crop rotation is a common phenomena
iv. In addition, poultry, dairy farming and horticulture are practiced on the same farm.

5) Organic Farming

It is a system which avoids the use of synthetic inputs such as chemical fertilizer, pesticides. In this farming method green manures and compost manures are used. Crop rotation technique is followed in this farming. Biologically pest control method is also applied

Assignment Questions

1. Distinguish between Rabi and Kharif crop.
2. What is green revolution? Write two demerits of Green Revolution.
3. Distinguish between intensive commercial farming and extensive commercial farming.
4. Mention four problems of Indian agriculture.
5. Explain the term- plantation farming.
6. Mention two importance of agriculture.
7. 'Shifting agriculture is known as slash and burn agriculture'- give reason.

Pranamita Majumder

DATE-04.05.2020 (MONDAY)
CLASS-X
SUBJECT-PHYSICS
CHAPTER-2: WORK, ENERGY AND POWER (2nd CLASS)

Mechanical Energy — Kinetic Energy & Potential Energy

Mechanical Energy
The energy possessed by the body due to its state of rest or of motion is called the mechanical energy. It is of two forms :
(1) Kinetic Energy (2) Potential Energy.
The total mechanical energy of a body = Kinetic energy + Potential energy

Kinetic Energy : the energy possessed by the object due to its motion.
All moving objects possess kinetic energy.

Formula of kinetic energy : $\frac{1}{2}mv^2$

1. The kinetic energy of an object depends upon its speed(v). An object moving faster has more kinetic energy than an object moving slower.
2. It also depends upon mass (m) of the body. Greater the mass, greater is the kinetic energy.


wikimedia commons; Author: Jim Thurston

Relationship between kinetic energy and momentum.

$K = \frac{1}{2}mv^2$

$p = m\,v$ $\quad P$

$K = \frac{1}{2}m\left(\frac{p}{m}\right)^2 = \frac{p^2}{2m}$ $\quad \therefore p = \sqrt{2mk}$ $\quad K = \frac{p^2}{2m}$

Potental energy: The energy possessed by a body at rest in its changed position or change in size or shape is called potential energy

Work done by the force of gravity (or gravitational potential energy) = mgh
(where, m=mass, g= gravitational acceleration, h= height)

Work-energy theorem: $W = K_{final} - K_{initial}$

Principle of conservation of energy: *Kinetic energy + Potential energy = Total energy = constant*

DATE-04.05.2020 (MONDAY)

CLASS-X

SUBJECT-PHYSICS

ASSIGNMENT-8

CHAPTER-2: WORK, ENERGY AND POWER (2nd CLASS)

(F.M.-10)

Answer the following questions

(Question No-1 carries 1 mark, 2 carries 2 marks, 3 carries 3 marks, 4 carries 4 marks)

1. Two bodies A and B of masses m and M (M<<m) have same kinetic energy. The body which will have Less momentum is ……

2. In what way does the temperature of water at the bottom of a waterfall differ from the temperature at the top? Explain the reason.

3. Show that the sum of kinetic energy and potential energy is always conserved in the case of a freely falling body under gravity from a height H by finding it when (i) the body is at the top, (ii) the body has reached the ground.

4. (i) A hydroelectric power station takes its water from a lake whose water level is at a height of 50 m above the turbine. Assuming an overall efficiency of 40%, calculate the mass of water which must flow through the turbine each second to produce power output of 1 MW. (take $g=10\ m/s^2$)

   (ii) State the energy changes that occur in photosynthesis in green leaves.

DREAMLAND SCHOOL
CLASS X
ACADEMIC YEAR-2020-21
ASSIGNMENT- 8
ENGLISH LANGUAGE

DATE- 4th MAY 2020

1. DO AS DIRECTED:

1. Amazing discoveries have been made by explorers.
   [Begin- Explorers…….]
2. The team consisted of six batsmen, four bowlers and a wicket keeper.
   [Use- Comprised.]
3. Unfortunately, he failed in his first attempt.
   [Use: succeed instead of ‘ failed’]
4. This should be the greatest value to mankind.
   [Begin-Nothing……..]
5. The boy was ill. He went to school.
   [combine the sentence using ‘though’]
6. It was the last time he saw his wife.
   [Begin- Never……]
7. Food and sleep were all we cared about.
   [Begin- All……..]
8. Rohan is a very studious boy and is always cheerful.
   [Begin-Besides……..]
9. Jamini has probably forgotten her mother’s birthday.
   [Begin- In…….]
10. He could not participate in the race as he had an injured foot.
    [Use: ‘prevented’]
11. The peasants regarded him as a thief and called him a villian.
    [End:…….. the peasants.]
12. ‘Please teach me to cycle ‘, she asked her brother.
    [Rewrite in indirect form]
13. There is no success without effort.
    [Begin- Whenever ……..]
14. The child disappeared as soon as the bus stopped.
    [Begin- Hardly…….]
15. Her attitude often annoys me.
    [Rewrite using: annoyance]

2 .**Join the following sentences without using *‘and, but* or *so’***:

1. Sahil composed a wonderful song. It became a hit.
2. Rani reached the spot. We were to meet there.
3. Samil met me. I gave him the document.
4. Sahil was very upset. I wanted to help him out.
5. Arun gave me the novel. Arun wanted me to review it.
6. Saraj received my note. He sent his reply within a week.
7. Raj is a great footballer. He is also popular.
8. Jennifer saw that I was confused. She came to my rescue.
9. Tarun wrote a book. It was a best-seller.
10. I reached the clock tower. My friend would meet me there.

3. **Notice & E-mail writing:**

a. You are a member of the library squad. Write a notice for your school notice board, informing students about a book exhibition, happening in your school.

b. Write an e-mail to the principal inviting her to inaugurate the exhibition.

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