APPENDICES

APPENDIX I: BLUE PRINTS FOR PREPARING QUESTION PAPERS IN SOCIAL SCIENCE

New Era School & Ambe School: Semester I

Chapters	Marks for	Understanding OQ	Understanding SQ	Understanding LQ	Application OQ	Application SQ	Application LQ	Analysis OQ	Analysis SQ	Analysis LQ	Synthesis OQ	Synthesis SQ	Synthesis LQ	Evaluation OQ	Evaluation SQ	Evaluation LQ	Total Marks
Geography: Resource	Overall Achi.	2				2.5						2.5					37
	CK,L,DT					CK-5 L-5 DT-5						CK-5 L-5 DT-5					
Geography: Land, Soil, Water, Natural Vegetation	Overall Achi.	2			1	5			2.5								40.5
	CK,L,DT					CK-5 L-5 DT-5			CK-5 L-5 DT-5								
History: From trade to territory	Overall Achi.	1										2.5			5		38.5
	CK,L,DT											CK-5 L-5 DT-5			CK-5 L-5 DT-5		
History: When People Rebel	Overall Achi.	1				2.5			2.5								36
	CK,L,DT					CK-5 L-5 DT-5			CK-5 L-5 DT-5								
Civics: The Indian Constitution & Parliament and making of law	Overall Achi.	2														10	27
	CK,L,DT															CK-5 L-5 DT-5	
Civics: Understanding Secularism	Overall Achi.	1	2.5									2.5					36
	CK,L,DT		CK-5 L-5 DT-5									CK-5 L-5 DT-5					
Total Marks		**26.5**			**56**			**35**			**52.5**			**45**			**215**

Total Marks for Overall Achievement **(Achi.)**: 50, Total Marks for Content Knowledge **(CK)**: 55, Total Marks for Logic **(L)**: 55, Total Marks for Divergent Thinking **(DT)**: 55, (**OQ :** Objective type question, **SQ :** Short answer type question, **LQ:** Long answer type question)

New Era School & Ambe School: Semester II

Chapters	Marks for	Understanding OQ	Understanding SQ	Understanding LQ	Application OQ	Application SQ	Application LQ	Analysis OQ	Analysis SQ	Analysis LQ	Synthesis OQ	Synthesis SQ	Synthesis LQ	Evaluation OQ	Evaluation SQ	Evaluation LQ	Total Marks
Geography: Industries	Overall Achi.	2				2.5									2.5		37
	CK,L,DT					CK-5 L-5 DT-5									CK-5 L-5 DT-5		
Geography: Human Resources	Overall Achi.	2			1	5						2.5					40.5
	CK,L,DT					CK-5 L-5 DT-5						CK-5 L-5 DT-5					
History: When people Rebel 1857 and after	Overall Achi.	1										2.5			5		38.5
	CK,L,DT											CK-5 L-5 DT-5			CK-5 L-5 DT-5		
History: The making of National Movement - 1870-1947	Overall Achi.	1				2.5			2.5								36
	CK,L,DT					CK-5 L-5 DT-5			CK-5 L-5 DT-5								
Civics: Understanding Marginalization	Overall Achi.	2	2.5									2.5					37
	CK,L,DT		CK-5 L-5 DT-5									CK-5 L-5 DT-5					
Civics: Public Facilities & Judiciary	Overall Achi.	1								10							26
	CK,L,DT									CK-5 L-5 DT-5							
Total Marks			26.5			56			42.5			52.5			37.5		215

Total Marks for Overall Achievement **(Achi.)**: 50, Total Marks for Content Knowledge **(CK)**: 55, Total Marks for Logic **(L)**: 55, Total Marks for Divergent Thinking **(DT)**: 55, (**OQ:** Objective type question, **SQ**: Short answer type question, **LQ:** Long answer type question)

APPENDIX II
ACHIEVEMENT TESTS IN SOCIAL SCIENCE

SEMESTER I
SOCIAL SCIENCE EXAM (CBSE) UNDER OPEN BOOK ENVIRONMENT

STANDARD: VIII   A   **TIME: 1.30 HOURS**

Full marks- 50

Name of the School:_____

Roll No: _____**Name:** _____   **Date:** _____

1. Choose the most suitable alternative out of the four alternatives given for each question. Mark your answer by putting a tick mark against the alternatives a, b, c or d.
    (10 x 1 = 10)

    i.   Recycling is important because

         a. It can save water, trees and many more materials.

         b. It will help us stop global warming.

         c. It reduces the amount of waste, saves landfills and energy.

         d. All of the above

    ii.   Which of the following are responsible for extinction of species?

         a. Loss of habitat

         b. Excessive use of chemical fertilizers and pesticides

         c. Providing habitat for animals in zoos

         d. Clearing of land to plant crops and build roads

              i.   All the above

              ii.   a, b and d.

              iii.   Both a and d

              iv.   Only c

    iii.   Lead present in water is harmful for the

         a. Liver

         b. Heart

         c. Brain

         d. Kidney

    iv.   Which of the following tree is not found in the temperate evergreen forests?

         a. Rosewood

132

b. Oak

c. Wattle

d. Eucalyptus

v. Which of the following statements about the soil is not correct?

Biodegradable household waste

a. Increases the fertility of the soil.

b. Increases the ability of the soil to retain moisture.

c. Increase the pesticides in the soil.

d. Increases the humus in the soil.

vi. Who shall be chosen as the Deputy Chairman of the Rajya Sabha?

a. Any person eligible to be elected to the Rajya Sabha

b. Any person who is for the time being a member of the Rajya Sabha

c. Any member of the parliament

d. A nominee of the President of the Rajya Sabha

vii. Which of the following has ceased to be a Fundamental Right?

a. Right to constitutional remedies

b. Right to property

c. Right to freedom of speech and expression

d. All of the above

viii. Which of these metals pollutes water heavily?

a. Arsenic

b. Lead

c. Potassium

d. Magnesium

ix. Which battle made the British rule in India concrete?

a. Battle of Plassey (1757) between British forces under Clive and the ruler of Bengal, Sirazudaulla

b. Battle of Buxar (1764) between British forces under Munroe and the Muslim rulers Shuja-ud-Daulah and Shah Alam II

c. 3rd Mysore War (1790-92) between the British and Tipu Sultan

d. 4th Mysore war (1799) between British forces under Wellesly and Tipu Sultan

x. The parliamentary system of government in india works on the principles of :

a. Separation of powers between the three organs of government

b. Fusion of powers between Legislature and executive

c. Fusion of powers between three organs of government

d. None of these

2. Answer **ANY 4 QUESTIONS from 2i – 2vi.**   (4 x 2.5 = 10 marks)

i.   According to you, what is the importance of the Food Security bill which was recently passed by the Indian Parliament?

ii.   Differentiate between Right to freedom of religion and Secularism.

iii. How would tribal history have changed if Birsa Munda was not jailed by the British for implementing the Munda Raj?

iv.   Differentiate between the outcomes of the Blue Revolution and the Revolt of 1857.

v.   What is the impact of Zamindari system over the Bengal economy?

vi.   If the Doctrine of Lapse was not initiated by the British, how would the freedom struggle have been affected?

3. Answer **ANY 4 QUESTIONS from 3i – 3vi**.   (4 x 2.5 = 10 marks)

i.   Differentiate between saline water and ground water.

ii.   Discuss two problems that have caused the degradation of soil in the coastal areas of India.

iii. What could be some of the activities in our daily life where solar energy could be used effectively?

iv.   Apart from the examples given in your book, mention two human activities that negatively affect the process of sustainable development.

v.   What would be the status of the natural resources on Earth if human beings have minimum interference with it?

vi.   In your view, what is the importance of the Sardar Sarovar Dam for the state of Gujarat?

4. Answer the following questions. Attempt **ANY 2 QUESTIONS from 4i – 4iv.**

(2 x 5 = 10 marks)

i.   How would you like to praise Tipu Sultan?

ii.   What were the learning points for the British from the Bengal famine of 1770?

iii.   Suggest some innovative ideas by which untouchability could be abolished from India.

iv.   'Conservation of plant and animals is the ethical duty of every citizen'. Justify it.

5. Answer **ANY ONE QUESTION from 5i – 5iii.**   (1 x 10 = 10 marks)

    i.   What extra steps would your state government take for the development of tribal community in your state?

    ii.   Suggest some ways by which the sewage of your locality can be used for biogas production.

    iii.   What would happen if Dalits and Adivasis are not allowed to become Members of Parliament?

SOCIAL SCIENCE EXAM (CBSE) UNDER OPEN BOOK ENVIRONMENT

STANDARD: VIII   **TIME: 1.30 HOURS**

Full Marks- 50

Name of the School:_____

Roll No: _____Name: _____   Date: _____

1. Choose the most suitable alternative out of the four alternatives given for each
    question. Mark your answer by putting a tick mark against the alternatives a, b, c or d.
    (10 x 1 = 10)

    i.   Today also, industries in public sector in India are necessary, because-

         e.   Probability of workers' partnership in the industries.

         f.   To provide employment to more number of people

         g.   Restriction on strengthening financial powers of private enterprizes.

         h.   To provide necessary services and facilities.

    ii. Which of the following industries is strictly in public sector even today?

         e.   Cotton industries

         f.   Road construction

         g.   Tele-communications

         h.   Railways

    iii. Iron ore of Kudremukh mine is exported from which port?

         e.   Tuticorin

         f.   Chennai

         g.   Cochin

         h.   Mangalore

    iv. Which out of the following companies is a Navaratna?

         e.   BHEL

         f.   L & T

         g.   Air India

         h.   LIC

    v.   Under which Article of the Constitution of India President's rule can be imposed

         in a state on account of breakdown of the constitutional machinery?

         e.   Article 356

   f. Article 361.

   g. Article 371.

   h. Article 379.

vi. The tax which yields largest revenue to the State Government is--

   e. Excise duty

   f. Sales tax

   g. Customs duties

   h. Corporation tax

vii. Why the education for girls is not considered important even today in India?

   e. Girls are not able to learn as well as boys

   f. Schools are fare away from home

   g. Girls are given no status equal to boy

   h. Importance given to household work and traditional employment

viii. In what way is socialism in the Indian Constitution different from that in other socialist countries?

   e. Inequalities are reduced to a minimum

   f. Right to property and following of a profession-particular trade is given

   g. State does not plan for or control production

   h. People are not ensured a minimum standard of life

ix. What is the similarity in importance of Quit India Movement and the Mutiny of 1857?

   e. Extreme brutality on people by the government

   f. Organization of revolt in armed forces

   g. Organizing all the states to expel Britons from the country

   h. Opposing all type forms of dictatorships, like Nizism, with the help of non-violence.

x. Non-Cooperation movement was opposed by

   e. Chitaranjan Das

   f. ArvindGhosa

   g. Motilal Nehru

   h. Subhas Chandra Bose

xi. The congress session of 1907 is known for

   a. Presidentship of Subhas Chandra Bose

   b. Surrender of Tilak

c. Split in Congress

d. Proposal of Quit India Movementz

xii. The name of the Periodical published by Mahatma Gandhi in South Africa was--

a. Navjivan

b. Indian Opinion

c. Harijan

d. African News.

xiii. When did British Government abolish the monopoly of British East India Company?

a. 1858

b. 1813

c. 1833

d. 1857

2. Answer **ANY 4 QUESTIONS**   (4 x 2.5 = 10 marks)

i.   Given a chance in 1947, which city of India you would choose as the capital of India? And why?

ii.   Imagine you are a Guru (teacher) of the new system of government regulated 'Pathshalas' in mid-19thcectury. How would manage the poor student to continue their study?

iii. As a student how would you help the marginalized communities in your locality from discrimination and exploitation?

iv.   Suggest some ways by which ordinary citizen can get right judgment against the unlawful activities of a politician.

v.   Suggest some ways by which in adequate storage facility for crops in many parts of our country can be solved.

vi.   What are the relationship between industrial developments and population of a country? Justify your answer.

3. Answer **ANY 4 QUESTIONS**   (4 x 2.5 = 10 marks)

i.   What would happen if Supreme Court does not devised a mechanism of Public Interest Litigation in 1980s?

ii.   What would happen if the minority groups were not provided with equity safeguards?

iii. What would happen if every citizen in India will follow norms of one child?

iv.   According to you what are the major problems of the Indian agriculture?

v.   Imagine you were born in a Brahmin family in 1820s. How would have responded to the evil practice of the society?

vi.   What would happen if the Arms Acts and Vernacular press Act was not enacted in 1878?

4. Answer the following questions. Attempt **ANY 2 QUESTIONS**

(2 x 5 = 10 marks)

i.   Suggest some ways by which forest base industries can be developed more effectively.

ii.   Whether a people's revolt like 1857 would repeat in India in future? Support your answer.

iii.   Do you think the present day women are considered equal in the society? Justify your answer?

iv.   How would you like to praise or criticize Britishers for the present industrial India? Justify your answer.

5. Answer **ANY ONE QUESTION.**   (1 x 10 = 10 marks)

i.   Due to population growth agricultural land is decreasing what would be your strategy to meet the challenge.

ii.   How do you consider the Rawlatt Satyagraha (1919) and the Non-cooperation Movement (1921-22) a failure or a success? Support your answer.

iii.   Suggest some ways through which the court judgments would be done faster.

APPENDIX III: REACTION SCALE

Dear Student,

You are taught Social Studies (SS) in a different environment i.e. open book environment by your teacher. It is a reaction scale to take your reaction towards that environment. The reaction scale consists of 30 statements related to the open book environment. Please read each statement and give your reaction for that statement in the form of five alternatives like, SA, A, UD, DA and SDA and put a tick mark in one of the column that will be considered as your reaction towards that statement. Likewise, read all the statements and put tick marks for your reaction for all the statements. The abbreviations used for the following words as follow.

SA= Strongly Agreed to the statement

A= Strongly Agreed to the statement

UD=Undecided to the statement

DA= Disagreed to the statement

SDA= Strongly Disagreed to the statement

Don't hesitate to give your correct reaction against any statement. Your reaction will be kept confidential and only be used for research purpose.

Thanking You

(RESEARCHER)

Roll No._____   **Name:**_____

Sl. No.	Statements	SA	A	UD	DA	SDA
1.	I liked the teaching of SS by our teacher in Open Book Environment (OBE).					
2.	Teaching of SS in Open Book Environment helped me in understanding the concepts of SS better learning.					
3.	Teaching of SS in Open Book Environment helped me inbetter learning of the subjects.					
4.	Teaching of SS through Open Book Environment was quite interesting.					
5.	I likes to work with Cognitive questionsgiven in the group.					
6.	Cognitive questions given in different chapter of SS were interesting.					
7.	Cognitive questions helped me and my group to think divergently.					
8.	It was interesting to find answers of the Cognitive questions.					
9.	It liked the group activities as it helped to stimulate my mind.					
10	Solving cognitive questions and presenting that in the whole class helped to develop my level of confidence.					
11	Solving cognitive questions in group helped me to develop my communication skills.					
12	I liked the way my teacher and friends appreciate our group work.					
13	Power Point Presentation in SS during OBE was interesting to us.					
14	Power Point Presentation in SS during OBE helped us to understand the concepts easily.					
15	We came to know about many more facts about SS through Power Point Presentation during OBE.					
16	There was a proper coordination between Power Point Presentation and the explanation by the teacher during OBE.					
17.	I liked the way freedom was given to us during the teaching through OBE.					
18.	Freedom given to us during the teaching through OBE helped us to increase our confidence level.					

19	Freedom given to us during the teaching through OBE helped us to be self disciplined.					
20	Learning through OBE developed our decision making skills.					
21	Concept mapping during OBE helped use to remember things easily.					
22	Learning in an OBE would help in minimizing rote learning					
23	Learning in an OBE will help me to realize my own capacity					
24.	Working with groups in OBE helped me to be cooperative.					
25.	Learning in an OBE is better than our traditional learning Environment					
26.	I liked answering questions during the Open Book Examination					
27.	Answering questions in the Open Book Examination helped to reduce my fear for examination.					
28.	I got the answers of the questions from my notes and books asked during the examination of OBE.					
29.	I liked the whole concept of OBE starting from teaching to the Examination.					
30.	The system of OBE is a better alternative to our traditional system of examination.					

LESSON PLANS
SOCIAL SCIENCE
LESSON PLAN-1

CLASS-VIII   **TOPIC**-Agriculture
SUBJECT- Geography   **TIME**-45 Minutes

1. TEACHING POINTS TO BE COVERED:

- Three types of economic activities
- Factors influencing agriculture
- Different names of agriculture
- Farm System
- Types of farming- Subsistence farming and commercial farming.
- *Subsistence farming*- Intensive subsistence agriculture, Primitive subsistence agriculture, Shifting cultivation, Nomadic herding,
- *Commercial farming*- Extensive agriculture, Mixed farming, Plantations agriculture, Pastoral farming, Dairy farming, Orchard farming, Market gardening, Horticulture,

Major Crops

- *food crops*- wheat, rice, maize and millets
- *fiber crops* -Jute and cotton
- *commercial crops*- Sugarcane & Rubber
- *beverage crops*- tea and coffee
- Agricultural Development
- Agricultural development in India
- Problems in Indian Agriculture
- Agricultural reforms in India
- Agricultural development in USA

2. LEARNING OBJECTIVES:

- To know the economic activities
- To describe the factors of agriculture
- To know the different type of agriculture
- To know the farm system
- To know the type of farming
- To define subsistence farming
- To define the commercial farming
- To know about the different type of commercial farming
- To know about the different type of subsistence farming

- To describe about the commercial farming
- To define the mixed farming
- To define extensive agriculture
- To describe the characteristic of mixed farming
- To know the characteristics of plantation agriculture
- To know about orchard farming
- To know about the agricultural development of India
- To know about the agricultural development of USA
- To describe the problem of Indian agriculture

3. CONTENT PRESENTATION IN BRIEF BY THE USE OF TECHNOLOGY:

Agriculture

*Economic activities: -*Transformation from a plant to a finished product involves three types of economic activities. These are primary, secondary and tertiary activities.

- *Primary activities* include all those connected with extraction and production of natural resources. Example- Agriculture, fishing and gathering are good examples.

Fig- Agriculture, fishing and gathering food as primary activities

- *Secondary activities* are concerned with the processing of these resources. Example- Manufacturing of steel, baking of bread and weaving of cloth are examples of this activity.

Fig- Manufacturing of steel, baking of bread and weaving of cloth

- *Tertiary activities* provide support to the primary and secondary sectors through services. Example- Transport, trade, banking, insurance and advertising are examples of tertiary activities.

144
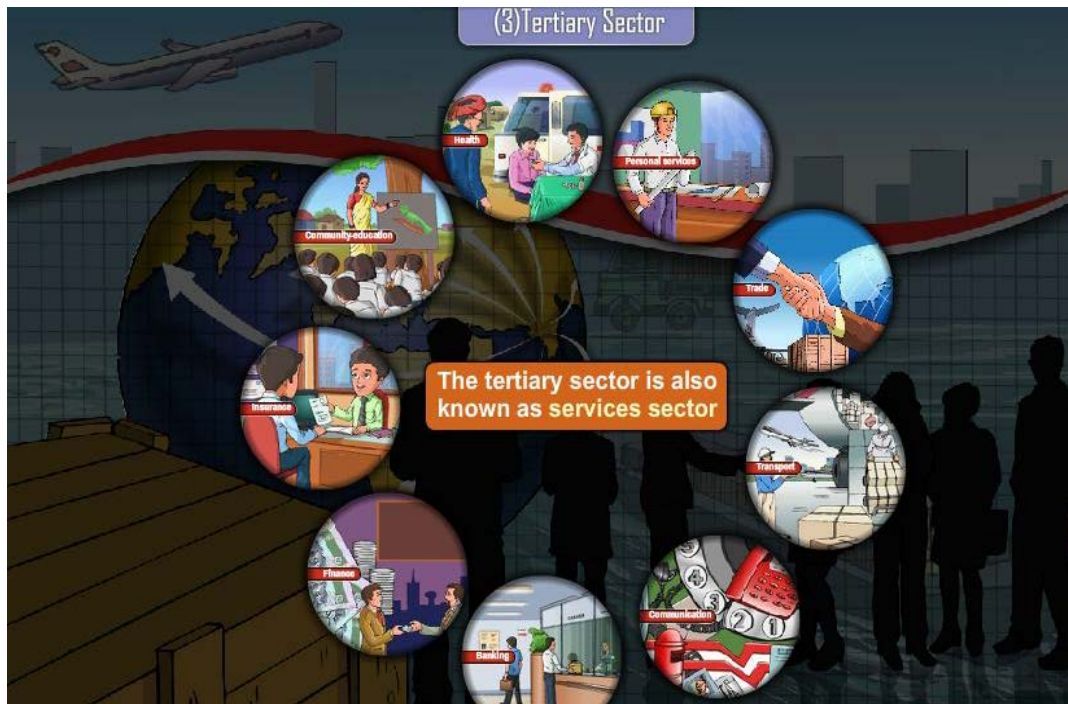
Fig- tertiary activities

Agriculture is a primary activity. It includes growing crops, fruits, vegetables, flowers and rearing of livestock.

Factors influencing agriculture

Agricultural development depends on different factors such as climate, irrigation, size of land holding and techniques and methods of farming.

- *Climate:* the world distribution of agricultural types is governed primarily by climatic conditions such as temperature and rainfall. For example, the warm tropical regions agriculture can be practiced throughout the year while in the higher latitudes; the winter temperature is too low for growth of crops. Some crops like rice and jute require more moisture and grow in areas of high rainfall while wheat and millets grow in the drier areas.
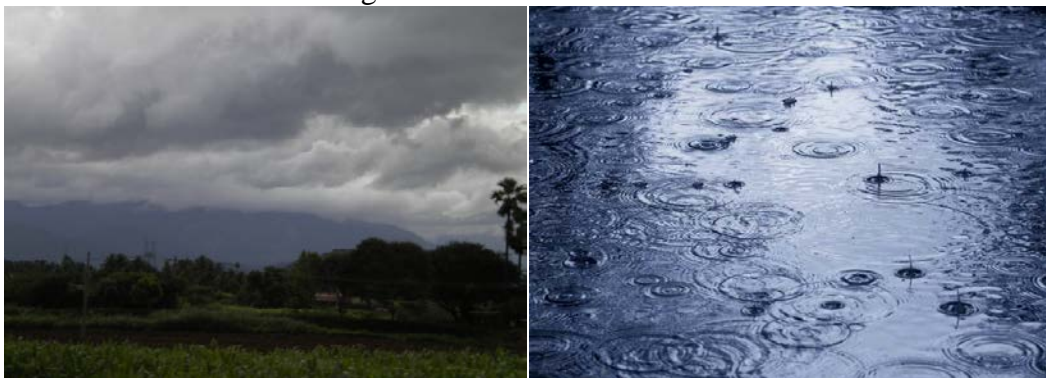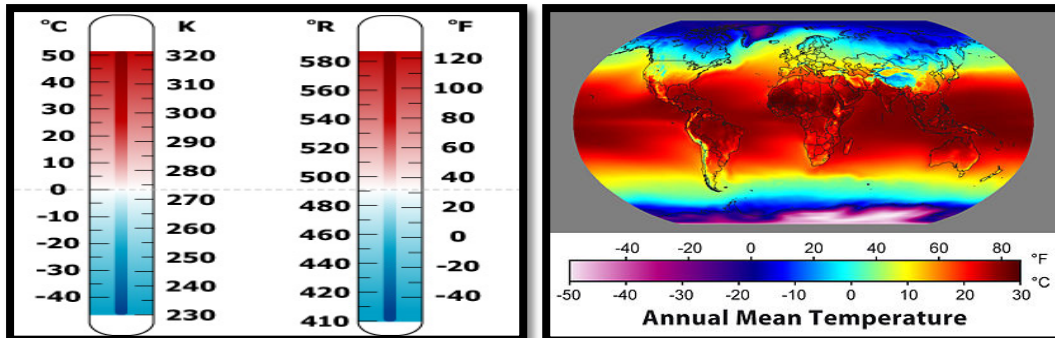
- *Soil:* Soils vary in their chemical compositions. Hence different types of soils are suitable for different crops. For example, rice grows best in clayey alluvial soil while black lava soil is suitable for cotton.

- *Relief:* The low lying lands, like plans, river valleys and deltas are more suitable for cultivation of crops than hilly areas. This is because the flat ground, fertile soil, dense population and better transport available here support agriculture.

Fig- river valley, delta, plan lands, plateau and hilly lands

- *Other factors:* Factors like cost of farming, market for a commodity, transport facilities, availability of labour, capital, system of land ownership and government policy also influence agriculture of region.

146

Fig- labour, capital, and different type of markets

Farm System

Agriculture or farming can be looked at as a system. The important inputs are seeds, fertilizers, machinery and labour. Some of the operations involved are ploughing, sowing, irrigation, weeding and harvesting. The outputs from the system include crops, wool, dairy and poultry products.

Types OF Farming

Farming is practiced in various ways across the world. Depending upon the geographical conditions, demand of produce, labour and level of technology, farming can be classified into two main types. These are **subsistence farming** and **commercial farming**.

a) Subsistence Farming:

This type of farming is practiced to meet the needs of the farmer's family. Traditionally, low levels of technology and household labour are used to produce on small output. Subsistence farming can be further classified as intensive subsistence and primitive subsistence farming. *Intensive subsistence agriculture-*the farmer cultivates a small plot of land using simple tools and more labour. Climate with large number of days with sunshine and fertile soils permit growing of more than one crop annually on the same plot. Rice is the main crop. Other crops include wheat, maize, pulses and oilseeds. Intensive subsistence agriculture is prevalent in the thickly populated areas of the monsoon regions of south, southeast and east Asia.

Fig- Intensive subsistence agriculture in Asia

Primitive subsistence agriculture- includes i) shifting cultivation and ii) nomadic herding.

Shifting cultivation is practised in the thickly forested areas of Amazon basin, tropical Africa, parts of Southeast Asia and Northeast India. These are the areas of heavy rainfall and quick regeneration of vegetation. A plot of land is cleared by felling the trees and burning them. The ashes are then mixed with the soil and crops like maize, yam, potatoes and cassava are grown. After the soil loses its fertility, the land is abandoned and the cultivator moves to a new plot. is also known as 'slash and burn' agriculture.

Fig- Shifting cultivation

Nomadic herding is practised in the semi-arid and arid regions of Sahara, Central Asia and some parts of India, like Rajasthan and Jammu and Kashmir. In this type of farming, herdsmen move from place to place with their animals for fodder and water, along defined routes. This type of movement arises in response to climatic constraints and terrain. Sheep, camel, yak and goats are most commonly reared. They provide milk, meat, wool, hides and other products to the herders and their families.

Fig- nomadic herders in India

b) Commercial Farming: Agriculture for sale of crops and profit is called commercial agriculture. There are different types of commercial agriculture practised in the world.

*Extensive agriculture:*this type of agriculture is practiced on a commercial scale and crops are grown for sale in the market. It is common in regions where there is abundant land but very sparse population, particularly in the mid-latitude grassland, i.e. the Prairies of North America, the Pampas of Argentina, the Steppes of Eurasia and the Downs of Australia.

Characteristic of Extensive agriculture:
- The land holdings are very big in size.
- The farming operations are fully mechanized and there are very few human labours.
- Fertilizers are not used to a great extent.
- A very important feature is specialization in one or two crops. Wheat is the most important crop. Other crops are corn, barley, rye and cotton.
- Total production from the farms is very large but per hectare productivity is low.

Fig- extensive agriculture

Mixed farming: In this type of agriculture the land is used for growing food and fodder crops and rearing livestock on the same farm. It is practiced in Europe, eastern USA, Argentina, southeast Australia, New Zealand and South Africa.

Characteristic:
- The farm size is moderate and farming is done intensively.
- Crop rotation is practiced to retain the soil fertility.

149

- The use of modern machinery, improved seeds and chemical fertilizers ensure a high yield.
- Farmer grow cereal crops like wheat, maize and barley along with root crops like potatoes and turnips, legumes like peas and fodder crops like alfalfa.
- They raise cattle for beef and sheep for mutton. Pigs and poultry are also kept.

Fig- mixed farming

Plantations agriculture:This type of agriculture is most practised in the tropical and sub-tropical region. These are a type of commercial farming. Rubber in Malaysia, coffee in Brazil, tea in India and Sri Lanka are some examples.

Fig- tea and coffee as plantation crops

Characteristic:
- Where single crop of tea, coffee, sugarcane, cashew, rubber, banana or cotton are grown.
- Large amount of labour and capital are required.
- The produce may be processed on the farm itself or in nearby factories.
- The development of a transport network is thus essential for such farming.
- Major Plantations are found in the tropical regions of the world.

Pastoral farming: It is the commercial rearing of livestock like cattle, sheep and goats for meat, milk, wool, hides and various other products. It is practiced in the temperate grasslands- the prairies of the USA, the Pampas of Argentina the Veld of South Africa, the Steppes of Eurasia and the Downs of Australia.

Fig- Pastoral farming

Dairy farming: It is the rearing of dairy cattle to produce milk and milk products. Dairy farming is practiced around urban areas. It is a highly intensive type of livestock farming. Modern machinery and scientific methods of breeding are used. A large labour force is required to look after the cattle and huge amount of capital needs to be invested. Dairy farming is most common in UK, Denmark, the Netherlands, Belgium, Switzerland, North-Eastern USA, South-Eastern Australia and New Zealand. In India dairy co-operative farms have been set up in Gujarat.

Fig- dairy farming and milk collection through machine

Orchard farming: It has developed in the Mediterranean climate region, where there is winter rain and summer draught. The south European countries like Portugal, Spain, France, Italy and Greece, and California in the USA have large-scale orchards. Orchard farming is a highly specialised commercial agriculture. Viticulture or grape cultivation is also a speciality of the Mediterranean regions. Grapes are used for wine production. Farming is done intensively and irrigation water is supplied in sufficient quantities.

Fig- grape cultivation and grapes are used for wine production

Market gardening: This type of agriculture includes the cultivation of vegetables, fruits and flowers solely for the urban markets. The market gardens are mostly located just outside the cities, in suburban areas. They are small in size and are intensively cultivated. Irrigation is often used and soil fertility is maintained by the application of fertilisers. A lot of manual labour is required and the market gardens are scientifically managed. Yields are generally high. Market gardening is also called truck farming as fresh vegetables are transported to the markets by trucks. It is developed in densely populated regions of north-western Europe, like the UK, Belgium, Denmark, Germany and the Netherlands, and the north-eastern part of the USA. Market gardening is practiced around the major cities of India too.

Fig- Market gardening

Horticulture: The growing of fruits and flowers is called horticulture. They are produced to meet the needs of the people living in towns and cities. It is very common in the European countries and in the USA. Netherlands specialises in the production of tulips. Roses and marigolds are grown in India to cater to the big cities.

Fig- horticulture

Major Crops

A large variety of crops are grown to meet the requirement of the growing population. Crops also supply raw materials for agro based industries. Major food crops are

wheat, rice, maize and millets. Jute and cotton are fiber crops. Important beverage crops are tea and coffee.

Food crops

Rice: Rice is the major food crop of the world. It is the staple diet of the tropical and sub-tropical regions.

- Temperature- about 25◦C during the growing season
- Rainfall- required high humidity and rainfall is 150-200 cm
- Soil- It grows best in alluvial clayey soil, which can retain water.
- Labour- a lot of manual labour is required as most of the work is done by hand
- Producing country- China leads in the production of rice followed by India, Japan, Sri Lanka and Egypt.
- In favourable climatic conditions as in West Bengal and Bangladesh two to three crops are grown in a year.

Fig- rice cultivation
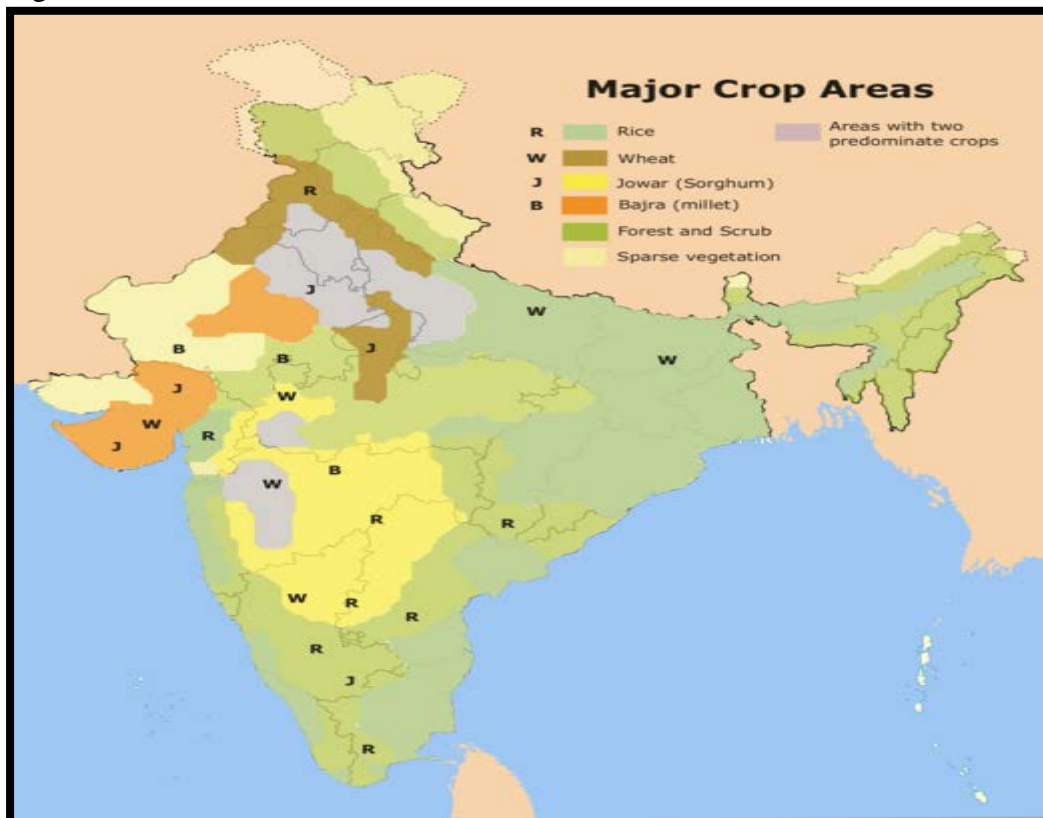
Wheat: Wheat is the chief food crop in the mid-latitude and dry subtropical regions.

Fig- wheat cultivation

- Temperature- requires moderate temperature about 15◦C during growing season and bright sunshine at the time of harvest.
- Rainfall- required rainfall is 50-75 cm, there should no frost.
- Soil- thrives best in well drained sandy loamy soil and also in black soil.
- Labour- a lot of manual labour is required
- Producing country- grown extensively in USA, Canada, Argentina, Russia, Ukraine, Australia and India.
- India -In India it is grown in winter, in Punjab, Haryana, UP, MP, Maharashtra.

Millets*:* Millets is a collective name given to coarse food grains like jower, bajara, ragi and sorghum.

Fig- Jowar, bajara and ragi

- Temperature- high to moderate temperature
- Rainfall- it is a hardy crop that needs low rainfall
- Soil- can be grown on less fertile and sandy soils.
- Labour- manual labour is required
- Producing country- India, Nigeria, China and Niger.

Maize: It is known as corn the in USA and '*makka'* in India.

Fig- Maize cultivation

- Temperature- about 20∘C during the growing period
- Rainfall- 50-75 cm.
- Soil- It needs well-drained fertile soils
- Labour- manual labour is required
- Producing country- The USA is the world's largest producer of maize. Maize is grown in North America, Brazil, China, Russia, Canada, India, and Mexico.

Commercial crops

Sugarcane: It is a tropical crop and a major source of sugar. It is a commercial crop. The sugarcane plant needs almost a year to mature.

Fig- sugarcane cultivation

- Temperature- requires 21∘C to 27∘C
- Rainfall- required rainfall is 125 cm.
- Soil- fertile and well drained loamy soil.
- Labour- plenty of manual labour is required.
- Producing country- grown in India, Cuba, Brazil, Hawaii in USA, Australia, Mexico, Philippines, Fiji and Indonesia.
- India –grown in UP, Maharashtra, Tamil Nadu, AP, Karnataka.

Rubber: It is obtained from the sap or latex of the rubber tree called 'Hevea Brasiliensis' which is found in the equatorial forests. It is used in the manufacture of types and tubes for vehicles, for waterproofing and insulating.

Fig- rubber cultivation

- Temperature- requires around 27∘C
- Rainfall- required more than 150 cm.
- Soil- fertile and well drained soils and flat or gently undulating land are well suited.
- Labour- lot of manual labour is required in the rubber plantations.

- Producing country- Malaysia is the largest producer of the rubber, followed by Indonesia. Other producing countries are Thailand, India, Sri Lanka, Nigeria, Liberia, Kampuchea, Vietnam and Brazil.
- India – Kerala is the major rubber producing state.

Fibre crops

Cotton: Cotton is the most important fibre crop, which has been used since ancient times. It is a tropical and sub tropical crops. It is one of the main raw materials for the cotton textile industry.

Fig- cotton cultivation and its collection

- Temperature- about 25∘C during growing period and bright sunshine during the picking season.
- Rainfall- around 75 cm
- Soil- It grows best on black and alluvial soils.
- Labour- a lot of manual labour is required
- Producing countries- China, USA, India, Pakistan, Brazil and Egypt are the leading producers of cotton.
- India –grown in Maharashtra, Gujarat and Andhra Pradesh.

Jute: Jute was also known as the 'Golden Fibre'. It is the most versatile natural fiber. It is strong and the cheapest of all fibres. This crop is grown in the tropical areas.

Fig- jute cultivation and processing of jute

- Temperature- more than 25∘C during growing period
- Rainfall- over 150 cm and humid climate.
- Soil- grows well on alluvial soil
- Labour- a lot of manual labour is required
- Producing countries-India and Bangladesh are the leading producers of jute.

- India – West Bengal, Assam, Bihar, Orissa and Tripura also produce some jute.

Beverage crops

Tea: Tea is a beverage crop grown on plantations. It is obtained from the leaves of the leaves of the tea plant, which is in fact a tropical bush. This requires cool climate and well distributed high rainfall throughout the year for the growth of its tender leaves.

Fig- tea plantation in India

- Temperature- up to 25∘C
- Rainfall- over 200 cm
- Soil- needs well-drained loamy soils and gentle slopes
- Labour- a large number of manual labours is required to pick the leaves.
- Producing countries- Kenya, India, China, and Sri Lanka produce the best quality tea in the world.
- India – it is grown in Assam, West Bengal, Kerala and Tamil Nadu. Tea from the Darjeeling district of West Bengal is of the finest quality and is world famous for its flavor.

Coffee: Coffee is another important beverage crop. It is grown in tropical highlands with warm and wet climate.

Fig- coffee plantation in India

- Temperature-ranging from 14∘C to 26∘C
- Rainfall- about 150 cm.
- Soil- requires and well- drained loamy soil. Hill slopes are more suitable for growth of this crop.
- Labour- a large number of manual labours is required

157

- Producing countries- Brazil is the leading producer followed by Columbia and India.
- India – grown in Karnataka and Tamil Nadu

Agricultural Development:

Agricultural Development refers to efforts made to increase farm production in order to meet the growing demand of increasing population. This can be achieved in many ways such as

- increasing the cropped area,
- the number of crops grown,
- improving irrigation facilities,
- Use of fertilisers and high yielding variety of seeds.
- Mechanisation of agriculture is also another aspect of agricultural development.
- The ultimate aim of agricultural development is to increase food security.

Agriculture has developed at different places in different parts of the world. Developing countries with large populations usually practice intensive agriculture where crops are grown on small holdings mostly for subsistence. Larger holdings are more suitable for commercial agriculture as in USA, Canada and Australia.

Agricultural development in India

Agriculture is the mainstay of the Indian economy. Nearly two thirds of the population depends directly or indirectly on agriculture for its livelihood. A wide variety of crops is grown in India including food grains as well as raw material for many agro based industries. India's climate, extensive level plains, fertile soil and perennial rivers help to sustain different varieties of crops.

Problems in Indian Agriculture

Agricultural productivity in India is low to a number of factors.

- Unavailability of timely irrigation due to erratic monsoon in different parts of India affects crop production.

- Floods and draughts damages crops.

- Unchecked soil erosion removes fertile topsoil.
- Small land holdings are uneconomical as modern farm equipment cannot be used on them.

- Farmers do not have surplus to invest in new techniques or special facility to grow cash crops.
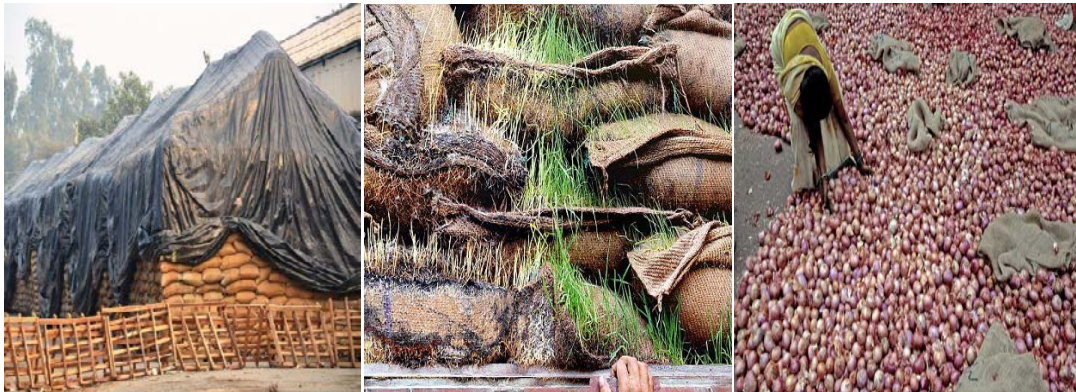

- Awareness of modern methods of farming among illiterate farmers is less.

- Credit and marketing facilities in rural areas is not sufficient.

- Inadequate storage facilities for crops in many parts of the country results in low agricultural productivity.

- Pests and diseases harm the standing crops.

Agricultural reforms in India

After independence, Indian agriculture has undergone major changes. The government has placed emphasis on the development of agriculture in the Five Year Planes. Apart from abolishing the Zamindari system, introduction of green revolution

in India gave a big boost to agricultural output. The green revolution brought about by using three inputs:

- High yielding variety of seeds
- Adequate irrigation water and
- Chemical fertilizers.

Land reforms, rural electrification and farm mechanization further accelerated agricultural production. The production of the food grains, especially wheat, increased tremendously in North India. The government also adopted some other measures to improve agriculture in India.

Agricultural development in USA

The USA is a developed country and its agriculture too is done on modern, scientific lines. It is commercial, with almost the entire produce being market-oriented. The farms are huge in size and highly mechanized. Production is very high and the USA is the largest exporter of agricultural products in the world. The farmers are also very prosperous and capable of investing a lot of money in the latest farming technology.

Fig- agricultural development in USA

4. QUESTION OF COGNITION/COGNITIVE CONFLICT/COGNITIVE REFLECTION:

- What would happen if the Indian agriculture develops like USA?
- Suggest some ways by which inadequate storage facilities for crops in many parts of our country can be solved.
- Imagine and describe a world when jute and cotton cultivation will be stopped.

5. *COLLABORATIVE LEARNING ACTIVITIES/INTRA-GROUP DISCUSSION:*

The class will be divided into 5-6 small groups. The groups will have discussion taking one of the questions of cognitive reflection/conflict and will prepare a write up on the basis of their discussion. Maximum scope will be provided to have peer discussion. Here teacher will stimulate and guide the students. (Maximum 10 minutes will be given for this purpose.)

6. *INTER-GROUP SHARING*:

One of the members of each group will present the discussion points what they have done in the group. Maximum 3-4 minutes could be provided to each group. (A maximum of 15 minutes will be given at this stage.) Teacher is not supposed to evaluate the groups, rather support and encourage the groups for thinking.

7. *QUESTION-ANSWER SESSION:*

Here teacher could be asked few questions related to understanding of the students. This session/step could be avoided according to the availability of the time.

8. *CONCEPT MAPING:*

Here teacher will asked the students to prepare a concept-map and to cognitize it. (3/5 minutes will be given to the students for it)

9. *ASSIGNMENT:*

- Prepare an assignment on the problem of Indian agriculture.
- Prepare an assignment on advantages and disadvantages of labour in agriculture.

10. *QUESTION FOR OPEN BOOK EXAMINATION:*

i. Suggest some ways by which inadequate storage facilities for crops in many parts of our country can be solved.

ii. Imagine and describe a world when jute and cotton cultivation will be stopped.

iii. Suggest some ways by which inadequate storage facilities for crops in many parts of our country can be solved.

iv. Imagine and describe a world when jute and cotton cultivation will be stopped.

v. According to you what are the major problems of the Indian agriculture?

LESSON PLAN

CLASS-VIII   **TOPIC**- Ruling the Country side

SUBJECT- History   **TIME**- 45 Minutes

1. *TEACHING POINTS TO BE COVERED:*

   Following teaching points has to be covered during the class of one period of 45 minutes-

   The Company becomes the Diwan, revenue for the company, the need to improve agriculture, the problems of permanent settlement, a new system is derived known as Mahalwari settlement , the Munro system, All new system which were imposed not well, Crops for Europe, does colour have a history, why the demand for Indian indigo?, Britain turns to India,

2. *LEARNING OBJECTIVES:*
   - It will cover both general as well as specific objectives.
   - To know about the Diwani
   - To define Diwan
   - To know the condition of Bengal economy
   - To know about Charles Cornwallis
   - To give the name
   - To know about the Zamindari system
   - To know about the Mahalwari settlement
   - To know about the Munro system
   - To know about the ryotwar
   - To describe about the indigo cultivation
   - To know the demand Indian indigo in European market
   - To describe about the problem with nij cultivation
   - To describe about the Blue Rebellion

3. *CONTENT PRESENTATION IN BRIEF BY THE USE OF TECHNOLOGY:*

The Company Becomes the Diwan:
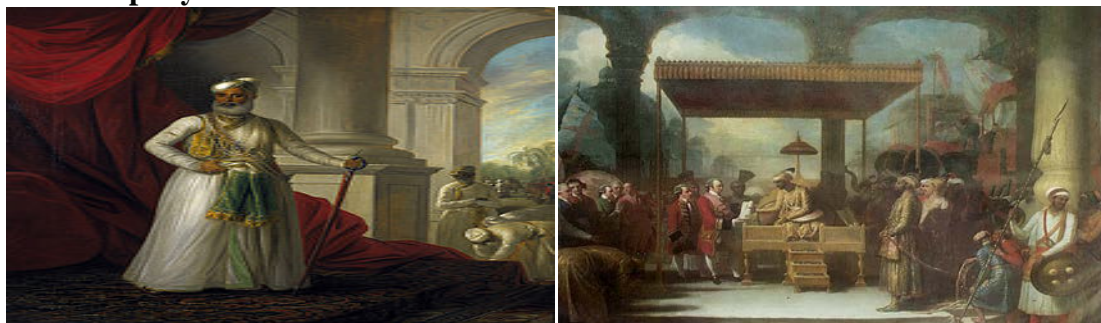
Fig- Robert Clive accepting the Diwani of Bengal, Bihar and Orissa from the Mughal ruler in 1765

On 12 August 1765, the Mughal emperor appointed the East India Company as the Diwan of Bengal. The actual event most probably took place in Robert Clive's tent, with a few Englishmen and Indians as witnesses. The grant of Diwani clearly was one such event in British imagination.

As Diwan, the Company became the chief financial administrator of the territory under its control. Now it had to think of administering the land and organizing its revenue resources. A trading company had also to ensure that it could buy the products it needed and sell what it wanted.

Over the years the Company also learnt that it had to move with some caution. Being an alien power, it needed to pacify those who in the past had ruled the countryside, and enjoyed authority and prestige.

Revenue for the Company

- The Company had become the Diwan, but it still saw itself primarily as a trader. It wanted a large revenue income but was unwilling to set up any regular system of assessment and collection. The effort was to increase the revenue as much as it could and buy fine cotton and silk cloth as cheaply as possible.

- Within five years the value of goods bought by the Company in Bengal doubled.

- Before 1865, the Company had purchased goods in India by importing gold and silver from Britain. Now the revenue collected in Bengal could finance the purchase of goods for export.

- Soon it was clear that the Bengal economy was facing a deep crisis. Artisanal production was in decline, and agricultural cultivation showed signs of collapse.

- Then in 1770 a terrible famine killed ten million people in Bengal. About one-third of the population was wiped out.
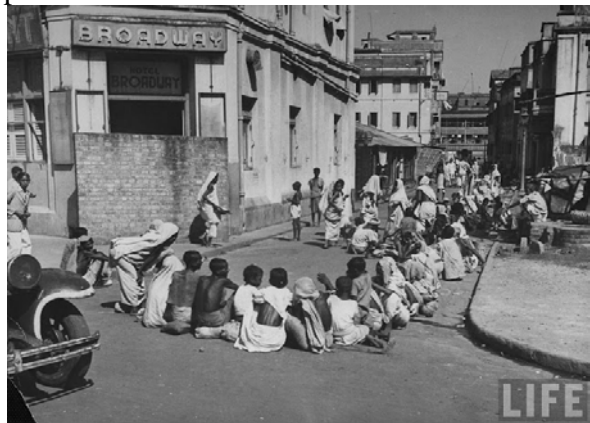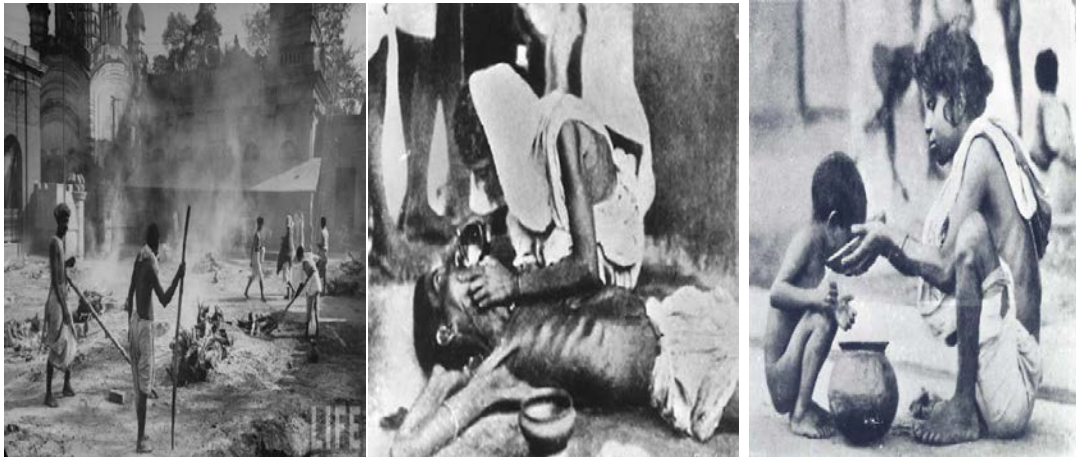
Fig- In 1770 terrible famine in Bengal related picture.

The need to improve agriculture

Most Company officials began to feel that investment in land had to be encouraged and agriculture had to be improved. After two decades of debate on the question, the Company finally introduced the Permanent Settlement in 1793.

Fig- permanent settlement related picture

By the terms of the settlement, the rajas and taluqdars were recognized as zamindars. They were asked to collect rent from the peasants and pay revenue to the Company. The amount to be paid was fixed permanently, that is, it was not to be increased ever in future. It was felt that this would ensure a regular flow of revenue into the Company's coffers and at the same time encourage the zamindars to invest in improving the land. The revenue demand of the state would not be increased, the zamindar would benefit from increased production from the land.

Fig- Zamindar and there palace

The problem

The Permanent Settlement, however, created problems. Company officials soon discovered that the zamindars were in fact not investing in the improvement of land. The revenue that had been fixed was so high that the zamindars found it difficult to pay. Anyone who failed to pay the revenue lost his zamindari. Numerous zamindaris were sold off at auctions organised by the Company.

By the first decade of the nineteenth century the situation changed. The prices in the market rose and cultivation slowly expanded. This meant an increase in the income of the zamindars but no gain for the Company since it could not increase a revenue demand that had been fixed permanently

Even then the zamindars did not have an interest in improving the land. Some had lost their lands in the earlier years of the settlement; others now saw the possibility of earning without the trouble and risk of investment. As long as the zamindars could give out the land to tenants and get rent, they were not interested in improving the land.

On the other hand, in the villages, the cultivator found the system extremely oppressive. The rent he paid to the zamindar was high and his right on the land was insecure. To pay the rent he had to often take a loan from the moneylender, and when he failed to pay the rent he was evicted from the land he had cultivated for generations.

A new system is devised

By the early nineteenth century many of the Company officials were convinced that the system of revenue had to be changed again. In the North Western Provinces of the Bengal Presidency (most of this area is now in Uttar Pradesh), an Englishman called Holt Mackenzie devised the new system which came into effect in 1822. He felt that the village was an important social institution in north Indian society and needed to be preserved. Under his directions, collectors went from village to village, inspecting the land, measuring the fields, and recording the customs and rights of different groups. The estimated revenue of each plot within a village was added up to calculate the

revenue that each village (**mahal**) had to pay. This demand was to be revised periodically, not permanently fixed. The charge of collecting the revenue and paying it to the Company was given to the village headman, rather than the zamindar. This system came to be known as the mahalwari settlement.

Fig- Thomas Munro and his statue

The Munro system

The new system that was devised came to be known as the ryotwar (or ryotwari). It was tried on a small scale by Captain Alexander Read in some of the areas that were taken over by the Company after the wars with Tipu Sultan. Subsequently developed by Thomas Munro, this system was gradually extended all over south India. Read and Munro felt that in the south there were no traditional zamindars. The settlement, they argued, had to be made directly with the cultivators (ryots) who had tilled the land for generations. Their fields had to be carefully and separately surveyed before the revenue assessment was made. Munro thought that the British should act as paternal father figures protecting the ryots under their charge.

All was not well

Within a few years after the new systems were imposed it was clear that all was not well with them. Driven by the desire to increase the income from land, revenue officials fixed too high a revenue demand. Peasants were unable to pay, ryots fled the countryside, and villages became deserted in many regions. Optimistic officials had imagined that the new systems would transform the peasants into rich enterprising farmers. But this did not happen.

Crops for Europe

The British also realised that the countryside could not only yield revenue, it could also grow the crops that Europe required. By the late eighteenth century the Company was trying its best to expand the cultivation of opium and indigo.

Fig- opium and its collection process

Fig- indigo and its uses

In the century and a half that followed, the British persuaded or forced cultivators in various parts of India to produce other crops: jute in Bengal, tea in Assam, sugarcane in the United Provinces (now Uttar Pradesh), wheat in Punjab, cotton in Maharashtra and Punjab, rice in Madras. The British used a variety of methods to expand the cultivation of crops that they needed.

Colours have a history:

Fig- Above pictures are two images of cotton prints. The image shows a kalamkari print created by weavers of Andhra Pradesh in India.

Fig- On the above two pictures are two floral cotton print designed and produced by William Morris, a famous poet and artist of nineteenth-century Britain.

There is one thing common in the two prints: both use a rich blue colour – commonly called indigo.

- The blue that you see in these prints was produced from a plant called indigo.
- It is likely that the blue dye used in the Morris prints in nineteenth-century Britain was manufactured from indigo plants cultivated in India.
- India was the biggest supplier of indigo in the world at that time.

Why the demand for Indian indigo?

The indigo plant grows primarily in the tropics. By the thirteenth century Indian indigo was being used by cloth manufacturers in Italy, France and Britain to dye cloth. However, only small amounts of Indian indigo reached the European market and its price was very high. European cloth manufacturers therefore had to depend on another plant called woad to make violet and blue dyes.

- Cloth dyers, however, preferred indigo as a dye. Indigo produced a rich blue colour, whereas the dye from woad was pale and dull. By the seventeenth century, European cloth producers persuaded their governments to relax the ban on indigo import.
- By the end of the eighteenth century, the demand for Indian indigo grew further. Britain began to industrialise, and its cotton production expanded dramatically, creating an enormous new demand for cloth dyes. While the demand for indigo increased, its existing supplies from the West Indies and America collapsed for a variety of reasons. Between 1783 and 1789 the production of indigo in the world fell by half. Cloth dyers in Britain now desperately looked for new sources of indigo supply.

Britain turns to India

Faced with the rising demand for indigo in Europe, the Company in India looked for ways to expand the area under indigo cultivation.

- From the last decades of the eighteenth century indigo cultivation in Bengal expanded rapidly and Bengal indigo came to dominate the world market.
- In 1788 only about 30 per cent of the indigo imported into Britain was from India. By 1810, the proportion had gone up to 95 per cent. As the indigo trade grew, commercial agents and officials of the Company began investing in indigo production.

- Over the years many Company officials left their jobs to look after their indigo business. Attracted by the prospect of high profits, numerous Scotsmen and Englishmen came to India and became planters. Those who had no money to produce indigo could get loans from the Company and the banks that were coming up at the time.

How was indigo cultivated?

There were two main systems of indigo cultivation – nij and ryoti. Within the system of nij cultivation, the planter produced indigo in lands that he directly controlled. He either bought the land or rented it from other zamindars and produced indigo by directly employing hired labourers.
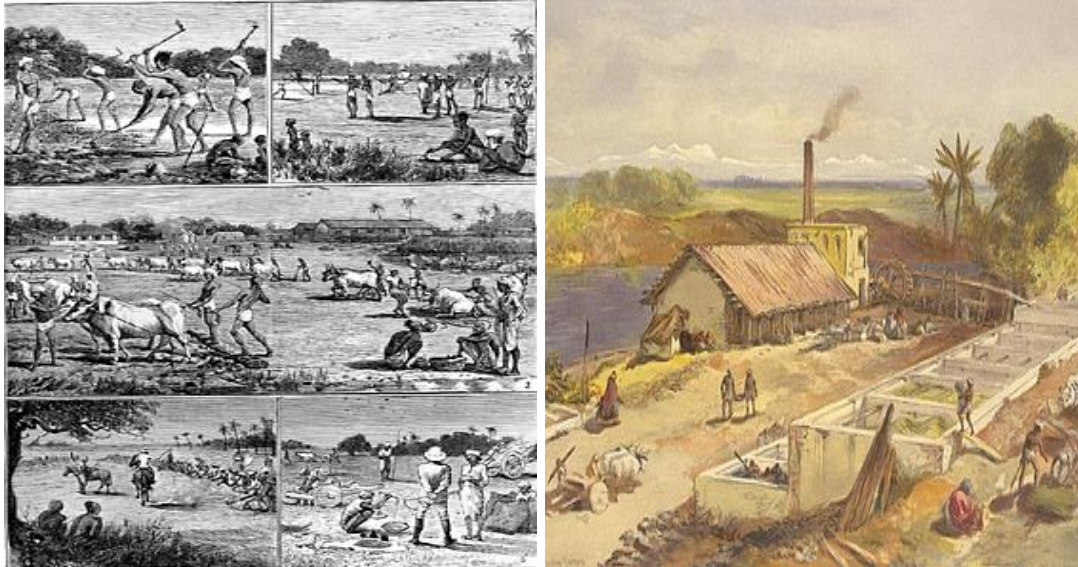
Fig- process of indigo cultivation and an indigo dye factory in Bengal

The problem with nij cultivation

- The planters found it difficult to expand the area under nij cultivation. Indigo could be cultivated only on fertile lands, and these were all already densely populated. Only small plots scattered over the landscape could be acquired.
- Planters needed large areas in compact blocks to cultivate indigo in plantations. They attempted to lease in the land around the indigo factory, and evict the peasants from the area. But this always led to conflicts and tension.
- Nij cultivation on a large scale also required many ploughs and bullocks. One **bigha** of indigo cultivation equired two ploughs. This meant that a planter with 1,000 bighas would need 2,000 ploughs. Investing on purchase and maintenance of ploughs was a big problem. The peasants plow and bullocks were busy on their rice fields.
- Till the late nineteenth century, planters were therefore reluctant to expand the area under nij cultivation. Less than 25 per cent of the land producing indigo was under this system. The rest was under an alternative mode of cultivation – the ryoti system.

Indigo on the land of ryots

Under the ryoti system, the planters forced the ryots to sign a contract, an agreement (satta). At times they pressurised the village headmen to sign the contract on behalf of the ryots. Those who signed the contract got cash advances from the planters at low rates of interest to produce indigo. But the loan committed the ryot to cultivating indigo on at least 25 per cent of the area under his holding. The planter provided the

seed and the drill, while the cultivators prepared the soil, sowed the seed and looked after the crop.

- When the crop was delivered to the planter after the harvest, a new loan was given to the ryot, and the cycle started all over again. The price they got for the indigo they produced was very low and the cycle of loans never ended.
- Peasants who were initially tempted by the loans soon realised how harsh the system was. There were other problems too. The planters usually insisted that indigo be cultivated on the best soils in which peasants preferred to cultivate rice.
- Indigo, moreover, had deep roots and it exhausted the soil rapidly. After an indigo harvest the land could not be sown with rice.

The "Blue Rebellion" and After

In March 1859 thousands of ryots in Bengal refused togrow indigo. As the rebellion spread, ryots refused to pay rents to the planters, and attacked indigo factories armed with swords and spears, bows and arrows. Women turned up to fight with pots, pans and kitchen implements. Those who worked for the planters were socially boycotted, and the gomasthas – agents of planters – who came to collect rent were beaten up. Ryots swore they would no longer take advances to sow indigo nor be bullied by the planters' lathiyals – the lathi-wielding strongmen maintained by the planters.

Clearly, the indigo system was intensely oppressive. But those who are oppressed do not always rise up in rebellion. They do so only at times.

In 1859, the indigo ryots felt that they had the support of the local zamindars and village headmen in their rebellion against the planters. In many villages, headmen who had been forced to sign indigo contracts, mobilised the indigo peasants and fought pitched battles with the lathiyals. In other places even the zamindars went around villages urging the ryots to resist the planters. These zamindars were unhappy with the increasing power of the planters and angry at being forced by the planters to give them land on long leases.

The indigo peasants also imagined that the British government would support them in their struggle against the planters. After the Revolt of 1857 the British government was particularly worried about the possibility of another popular rebellion. When in Barasat, the magistrate Ashley Eden issued a notice stating that ryots would not be compelled to accept indigo contracts; word went around that Queen Victoria had declared that indigo need not be sown. Eden was trying to placate the peasants and control an explosive situation, but his action was read as support for the rebellion.

As the rebellion spread, intellectuals from Calcutta rushed to the indigo districts. They wrote of the misery of the ryots, the tyranny of the planters, and the horrors of the indigo system.

Worried by the rebellion, the government brought in the military to protect the planters from assault, and set up the Indigo Commission to enquire into the system of indigo production. It declared that indigo production was not profitable for ryots. The Commission asked the ryots to fulfill their existing contracts but also told them that they could refuse to produce indigo in future.

After the revolt, indigo production collapsed in Bengal. But the planters now shifted their operation to Bihar. When Mahatma Gandhi returned from South Africa, a peasant from Bihar persuaded him visit Champaran and see the plight of the indigo cultivators there. Mahatma Gandhi's visit in 1917 marked the beginning of the Champaran movement against the indigo planters.

Fig- Champaran Satyagraha

4. *QUESTION OF COGNITION/COGNITIVE CONFLICT/COGNITIVE REFLECTION:*
   ♠ According to you what could be added to the Zamindari system to make it more effective.
   ♠ What were the advantages of Mahalwari settlement over Zamindari system?
   ♠ Design a system where 'nij' and 'ryoti' cultivation of indigo could be merged to have a better system.
   ♠ What would happen if the Zamindari System is going up to the date?
   ♠ What was the learning point for the Indians from the blue rebellion?
   ♠ What would happen if all the fertile lands of India were used for indigo cultivation?
   ♠ What would happen if the planters gave more profit to the ryots from indigo?
   ♠ What would happen if the Mughal emperor did not grant permission only for trading in Bengal?
   ♠ What would happen if Mahatma Gandhi led in "Blue Rebellion" against the indigo planters in 1859?
   ♠ What would happen if the terrible Bengal famines in 1770 not happen?
   ♠ Suggest some ways by which famine can be under controls very easily.
   ♠ As the Diwan of Bengal what would the role of the East India Company be at the time of Bengal famine to controls the situation?
   ♠ What was the impact of blue rebellion over the Champaran movement?

5. COLLABORATIVE LEARNING ACTIVITIES/INTRA-GROUP DISCUSSION:

The class will be divided into 5-6 small groups. The groups will have discussion taking one of the questions of cognitive reflection/conflict and will prepare a write up on the basis of their discussion.

6. INTER-GROUP SHARING:

One of the members of each group will present the discussion points what they have done in the group. Maximum 3-4 minutes could be provided to each group. (A maximum of 15 minutes will be given at this stage.) Teacher is not supposed to evaluate the groups, rather support and encourage the groups for thinking.

7. QUESTION-ANSWER SESSION:

Here teacher could be asked few questions related to understanding of the students. This session/step could be avoided according to the availability of the time.

i) When the Mughal emperor appointed the East India Company as the Diwan of Bengal?
ii) Who was Robert Clive?
iii) When the terrible famine killed millions of people of Bengal?
iv) Why the terrible famine happened in Bengal?
v) What is Mahalwari settlement?
vi) What is Ryotwari system?
vii) Who developed Ryotwari settlement?
viii) What is indigo?
ix) Which type of crops required for Europe?
x) How was indigo cultivated?
xi) What was the problem of nij cultivation?
xii) What is Bigha?
xiii) Why was ryots reluctant to grow indigo?
xiv) What is Blue Rebellion?
xv) Why the Champaran movement was happened?
xvi) What happen after the Blue rebellion?

8. CONCEPT MAPING:

Here teacher will asked the students to prepare a concept-map and to cognitized it. (3/5 minutes will be given to the students for it)

9. ASSIGNMENT:

Teacher will give 1-2 assignment/s on the application of the content learnt / to gather some information on the concept learning.

- Do a project, or make a presentation on the indigo farmers of Bengal and Bihar. Discuss why the British encouraged the cultivation of indigo, how indigo cultivation affected the soil, the problems the farmers faced, and how they finally rose in revolt.

10. QUESTION FOR OPEN BOOK EXAMINATION:

Here the teacher has to write few questions (5/7) on the content taught those can be asked in an Open Book Examination. The questions should be framed in such ways that direct answer of the questions will not be found from the book or any reference materials.

- What would happen if the Mughal emperor did not appointed the east India Company as the Diwan of Bengal?
- What is the impact of the Revolt of 1857 over the Blue Revolution?
- What is the impact of Zamindari system over the Bengal economy?
- What was the learning point for the British from Bengal famine 1770?
- Differentiate between the Blue Revolution and the Revolt of 1857.

LESSON PLAN

CLASS-VIII   **TOPIC**- The India Constitution

**SUBJECT**- Social and Political life   **TIME**-45 Minutes

1. *TEACHING POINTS TO BE COVERED:*

i)introduction about Indian constitution ii) why does a country need a Constitution iii) Establish Nepal as a democracy iv) The Indian constitution : key features like..a) Federalism b) Parliamentary form of government c) Separation of power d) Fundamental Rights e) Secularism.

2. *LEARNING OBJECTIVES:*

- To know the concept of rules
- To define constitution
- To describe about the components of constitution
- To describe about the need of constitution
- To describe about the Indian constitution
- To describe about the need for laws
- To know about the ideas and ideals of Indian constitution
- To know the key features of the Indian constitution
- To know the directive principle of state policies
- To describe the fundamental rights
- To know about right to equality
- To describe the right to freedom

3. *CONTENT PRESENTATION IN BRIEF BY THE USE OF TECHNOLOGY:*

175
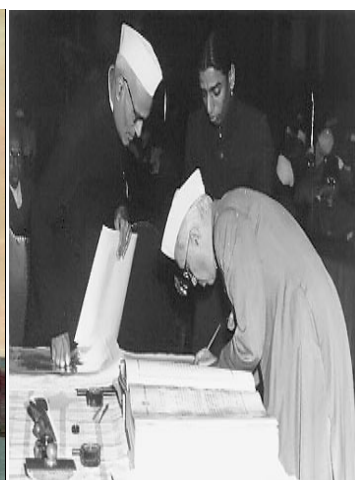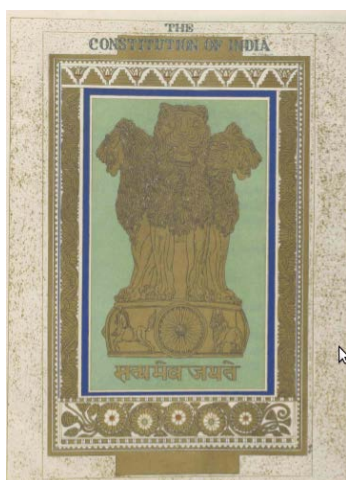
Introduction:

In this chapter, we will discuss both these issues and also look at the key features of the Indian Constitution. Each of these features is crucial to the working of democracy in India.

All societies are bound only by rules. These rules help to bring about order in human lives. When a group of people live together, there are bound to be differences opinion on various issues. There will also disputes over access to control over, limited resources like water or land. These disputes have to be resolved peacefully and amicably if the group has to coexist. Thus rules were invented to resolved conflicts in an impartial and peaceful manner.

What is Constitution?

A constitution is a set of rules, laws and principles according to which a country is governed. The rules and laws are specially created to suit the needs of the people of that country.

Why does a country need a constitution?

The basic principle that a democratic country abides by is freedom. However, granting it in absolute terms may lead to unjust misuse of this fundamental right. Hence, a set of rules for the same is necessary. The Constitution of a country is this very set of rules and principles meant to avoid arbitration of rights.

The Constitution of a democratic country follows four basic guidelines:

- **Firstly,** it upholds the ideals of its representative country; Constitution tells us what the fundamental nature of our society is. It helps serve as a set of rules and principles that all persons in a country can agree upon, as the basis of the way in which they want the country to be governed.
- **Secondly**, it defines the nature of the country's political system which runs the nation; for example, Nepal was a monarchy until 2006 when the people's movement finally bore fruit and a new Constitution established Nepal as a democracy.


- **Thirdly,** the Constitution works as a safeguard against tyrannical use of power by dominant groups against minorities. Hence, in India, which is a melting pot of several cultures and religions, the Constitution ensures that the majority i.e., the Hindus do not use their status to overwhelm the minorities predominantly comprising Muslims and Christians.

- Lastly, the Constitution protects us from ourselves in ascertaining that our whims cannot change its basic structure i.e., provisions that guarantee citizens' rights cannot be easily overthrown.
- Thus, a democratic nation needs a Constitution to uphold its rights of freedom and equality.

The Indian Constitution: Key Features
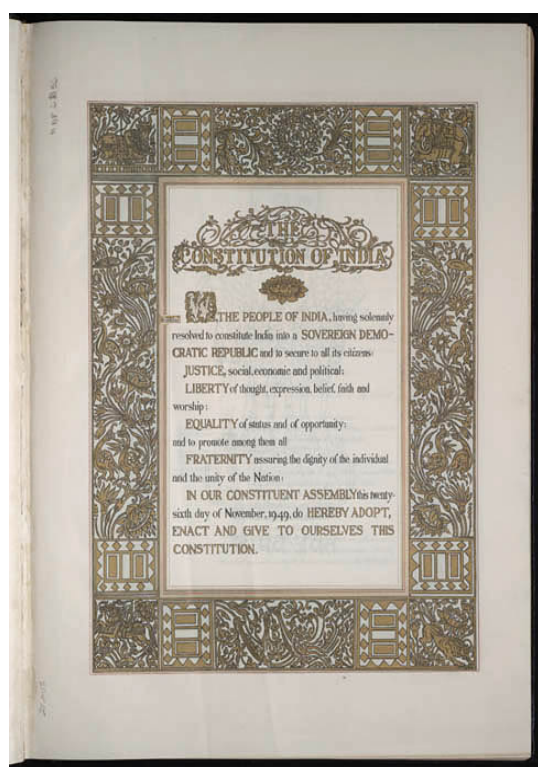
Pandit Jawaharlal Nehru

Sir Alladi Krishnaswami (seated third from left), Rajendra Prasad and a few members of the Constituent Assembly.

Sardar Patel & K.M. Munshi at the first Constituent Assem

Dr. B.R. Ambedkar

- The Indian Constitution starts with the preamble which outlines the main objectives of the Constitution. It reads:
- "WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN, SOCIALIST, SECULAR, DEMOCRATIC, REPUBLIC and to secure all its citizens."
- **JUSTICE,** social economic and political.
- **LIBERTY,** of thought, expression, belief, faith and worship.
- **EQUALITY,** of status and of opportunity, and to promote among them all.

- **FRATERNITY** assuring the dignity of the individual and unity and integrity of the nation.
- IN OUR CONSTITUENT ASSEMBLY, this twenty sixth day of November, 1949, do HEREBY ADOPT, "ENACT AND GIVE TO OURSELVES HIS CONSTITUTION ".
- Idea of preamble borrowed from Constitution of US.
- The words **'SOCIALIST', 'SECULAR' and 'UNITY' & 'INTEGRITY'** were added by the 42nd Amendment in 1976.
- Preamble is not justifiable.

Listed below are the key features of the Indian Constitution. While reading these, keep in mind the above-mentioned concerns of diversity, unity, socio-economic reform and representation that the authors of this document were grappling with. A study of this will enable you to appreciate the conscious and cautious effort taken by our constitution makers to shape India into a truly democratic country.

I Federalism: This refers to the existence of more than one level of government in the country. In India, we have governments at the state level and at the centre. Panchayati Raj is the third tier of government.
- This separation of powers at the national level and at the regional level is known as federal division of power.
- The vast number of communities in India meant that a system of government needed to be devised that did not involve only persons sitting in the capital city of New Delhi and making decisions for everyone.
- The Constitution contains lists that detail the issues that each tier of government can make laws on. In addition, the Constitution also specifies where each tier of government can get the money from for the work that it does.

II. Parliamentary Form of Government:

Constitution of India guarantees universal adult suffrage for all citizens. When they were making the Constitution, the members of the Constituent Assembly felt that the freedom struggle had prepared the masses for universal adult suffrage and that this would help encourage a democratic mindset and break the clutches of traditional caste, class and gender hierarchies. This means that the people of India have a direct role in electing their representatives.

III. Separation **of Powers**: According to the Constitution, there are three organs of the State. These are the legislature, the executive and the judiciary.

- The legislature refers to our elected representatives.
- The executive is a smaller group of people who are responsible for implementing laws and running the government.
- The judiciary, of which you will read more in Unit 3 of this book, refers to the system of courts in this country.
- In order to prevent the misuse of power by any one branch of the State, the Constitution says that each of these organs should exercise different powers.
- Through this, each organ acts as a check on the other organs of the State and this ensures the balance of power between all three.
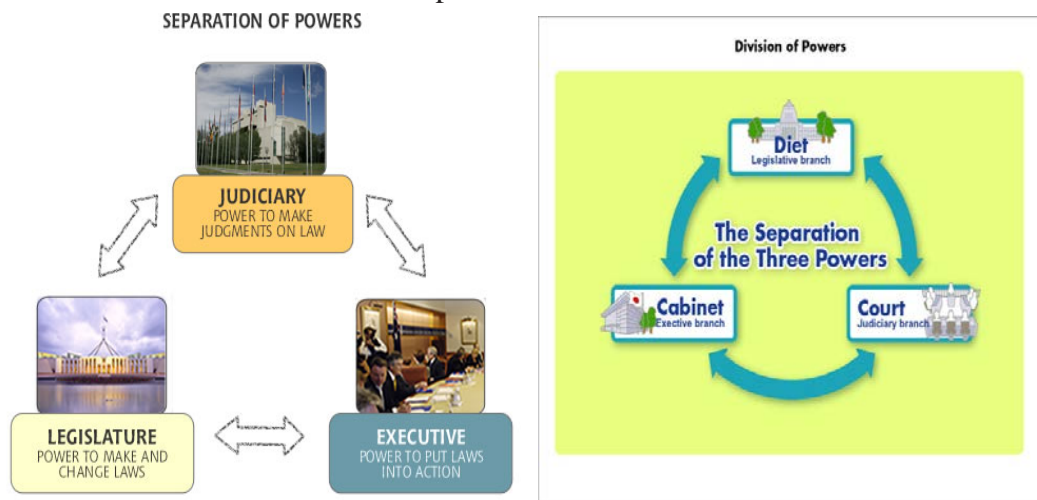
IV. **Fundamental Rights**: The section on Fundamental Rights has often been referred to as the 'conscience' of the Indian Constitution.

- Fundamental Rights, therefore, protect citizens against the arbitrary and absolute exercise of power by the State.
- The Constitution, thus, guarantees the rights of individuals against the State as well as against other individuals.

As Dr Ambedkar has said about these Fundamental Rights, their object is two-fold.

- The first objective is that every citizen must be in a position to claim those rights.
- And secondly, these rights must be binding upon every authority that has got the power to make laws.

The Fundamental Rights in the Indian Constitution include:

- **<u>Right to Equality:</u>** All persons are equal before the law. This means that all persons shall be equally protected by the laws of the country. It also states that no citizen can be discriminated against on the basis of their religion, caste or sex. Every person has access to all public places including playgrounds, hotels, shops etc. The State cannot discriminate against anyone in matters of employment. But there are exceptions to this that you will read about later in

this book. The practice of untouchability has also beenabolished.

- **Right to Freedom:** This includes the right to freedom of speech and expression, the right to form associations, the right to move freely and reside in any part of the country, and the right to practice any profession, occupation or business.
- **Right against Exploitation:** The Constitution prohibits trafficking, forced labour, and children working under 14 years of age.
- **Right to Freedom of Religion:** Religious freedom is provided to all citizens. Every person has the right to practice, profess and propagate the religion of their choice.

- **Cultural and Educational Rights:** The Constitution states that all minorities, religious or linguistic, can set up their own educational institutions in order to preserve and develop their own culture.

- **Right to Constitutional Remedies:** This allows citizens to move the court if they believe that any of their Fundamental Rights have been violated by the State.

Secularism: A secular state is one in which the state does not officially promote any one religion as the state religion.

Following are the Fudamental Rights in India

Right to Equality	• Article 14 :- Equality before law and equal protection of law • Article 15 :- Prohibition of discrimination on grounds only of religion, race, caste, sex or place of birth. • Article 16 :- Equality of opportunity in matters of public employment • Article 17 :- End of untouchability • Article 18 :- Abolition of titles, Military and academic distinctions are, however, exempted

Right to Freedom	• Article 19 :- It guarantees the citizens of India the following six fundamentals freedoms:-
	   1. Freedom of Speech and Expression
	   2. Freedom of Assembly
	   3. Freedom of form Associations
	   4. Freedom of Movement
	   5. Freedom of Residence and Settlement
	   6. Freedom of Profession, Occupation, Trade and Bussiness
	 • Article 20 :- Protection in respect of conviction for offences
	 • Article 21 :- Protection of life and personal liberty
	 • Article 22 :- Protection against arrest and detention in certain cases

Right Against Exploitation	• Article 23 :- Traffic in human beings prohibited • Article 24 :- No child below the age of 14 can be employed
Right to freedom of Religion	• Article 25 :- Freedom of conscience and free profession, practice and propagation of religion • Article 26 :- Freedom to manage religious affairs • Article 27 :- Prohibits taxes on religious grounds • Article 28 :- Freedom as to attendance at religious ceremonies in certain educational institutions
Cultural and Educational Rights	• Article 29 :- Protection of interests of minorities • Article 30 :- Right of minorities to establish and administer educational institutions • Article 31 :- Omitted by the 44th Amendment Act
Right to	• Article 32 :- The right to move the Supreme Court in case

Constitutional Remedies	of their violation (called Soul and heart of the Constitution by BR Ambedkar) • Forms of Writ check • Habeas Corpus :- Equality before law and equal protection of law

V. Secularism: A secular state is one in which the state does not officially promote any one religion as the state religion. We will read more about this in the following chapter.

4. QUESTION OF COGNITION/COGNITIVE CONFLICT/COGNITIVE REFLECTION:

- What would happen if the international cricket tournament has no rule?
- Try to imagine and state what might happen if in your city traffic rules are not there?
- When you travel on the bus or train if anyone is smoking, what will you do? Suggest some ways by which smoking in public places can be prevented.
- Imagine and state what might happened if the present political party ban the Indian constitution.
- What would happen if Pakistan, Bangladesh and Sri Lanka follow the Indian constitution?
- What would happen if India has governed only by State level Government?
- What would happen if the people of India has no role for electing there representative directly?
- According to you what could be added to the parliamentary form of Government to make it more effective.
- What are the advantages of 'separation of power' over parliamentary Government?
- Suggest some ways by which you as a citizen help to abolish child labor practice in your locality.
- Think and state what might happen if the fundamental rights are not included in Indian constitution?
- What would happen if the Indian States formed on the basis of any religion?

5. COLLABORATIVE LEARNING ACTIVITIES/INTRA-GROUP DISCUSSION:

The class will be divided into 5-6 small groups. The groups will have discussion taking one of the questions of cognitive reflection/conflict and will prepare a write up on the basis of their discussion. Maximum scope will be provided to have peer discussion. Here teacher will stimulate and guide the students. (Maximum 10 minutes will be given for this purpose.)

6. INTER-GROUP SHARING: One of the members of each group will present the discussion points what they have done in the group. Maximum 3-4 minutes could be

provided to each group. (A maximum of 15 minutes will be given at this stage.) Teacher is not supposed to evaluate the groups, rather support and encourage the groups for thinking.

7. *QUESTION-ANSWER SESSION:*

- What is constitution?
- Why does a country need a constitution?
- What are the key features of Indian constitution?
- What do you mean by federalism?
- What is parliamentary government?
- What do you mean by separation of power?
- Who are legislatures?
- What is the works of judiciary?
- What do you mean by fundamental right?
- What do you mean by the term 'freedom to religion?
- What is secularism?

8. *CONCEPT MAPING:*

Here teacher will asked the students to prepare a concept-map and to cognitize it. (3/5 minutes will be given to the students for it)

9. ASSIGNMENT:

- Prepare an assignment on Parliamentary Government of India.

10. QUESTION FOR OPEN BOOK EXAMINATION:

- What is the necessity of federal structure of Government for a country like India?
- Suggest some ways by which 'Panchayati Raj' could be more powerful.
- What would happen if the India is governed only by central government from Delhi?
- Differentiate between the power of legislative & judiciary.
- What would happen if a county like India has no constitution?

APPENDIX- V

Two Days Orientation Programme on Open Book Examination in social science Subject for Semester I

	Session 1 **(10:00 am-11:30 am)**	**Session 2** **(12:15 pm-01:45 pm)**
Day 1	• Introduction • Methods of Social Science Teaching • Present challenges of teaching Social Science	• Introduction on Open Book Examination • Need for creating Open Book Environment in Secondary Schools in Social science subject
Day 2	• Discussion about the various components of the lesson Plans • Role of teacher in teaching in an Open Book Environment	• Demonstration of a model lesson plan on Social Science using PPT by the researcher • Conclusion

Schedule for One Days Orientation Programme on Open Book Examination Semester II

Session- 1 **Time-(10:00 am-11:30 pm)**	**Session- 2** **Time- (12:15 pm-01:45 pm)**
• Discussion with the various problems for implementation of the concept of Open Book Examination during class teaching.	• Solutions for the problems in implementation of Open Book Examination

APPENDIX VI
PAPER PUBLICATION

Teacher Competency: Mapping & Management

Dr. Chhaya Goel

Prof. S.C. Panigrahi

Teacher Competencies for Open Book Examination

Milton Jana

Research Scholar, CASE

The Maharaja Sayajirao University of Baroda

Introduction

Teaching learning is a tri-polar process including planning, teaching and evaluation. All these three components of teaching learning are equally important and inter related in this process of teaching learning. Teacher is a maker of man. He is a builder of a nation. He is foundation of all education. He is the light kindling other light. Hence it is the primary tusk of any nation that it should give highest importance and highest effort in producing a good teacher mass. In order to do so, it should provide ample opportunities to the teachers and teacher's educators to be well equipped with the professional competences and adopting the professional ethics. Again in addition to these two aspects, they should be motivated to attain study group, study of professionals, writings and conference for their professional development. According to Indian Education Commission –(1964-66)"All the different factors which influence the quality of education and its contribution to national development, the quality, competence and character of teachers are undoubtedly the most significant". The National Knowledge Commission (NKC) has observed that teachers are the single most important element of the school system and the country is already facing a severe shortage of qualified and motivated school teachers at different levels. Such roles demand that teachers be equipped with an adequate understanding of curriculum, subject-content and pedagogy, on the one hand, and the community and school structures and management.

Our education system follows more or less a similar pattern of teaching, learning and evaluation pattern at all levels in teaching. NCF (2005) tried to highlight few concerns may be related to the present system in the following sentences. There is a deep disquiet about several aspect of our educational practice :(a)the school system is characterized by a inflexibility that makes it resistant to change; (b)learning has become an isolated activity, which does not encourage children to link knowledge with their lives in any organic or vital way; (c) schools promote a regime of thought that discourage creative thinking and insight; (d) what is presented and transmitted in the name of learning in schools bypasses vital dimension of human capacity to create

new knowledge. It reflects the drawbacks of our education system and hence need some urgent remedial measures. Many new concepts are being implemented in the school education system like, constructivist approach of teaching, continuous and comprehensive evaluation etc. of which few are related to the teaching learning, few are related to environment building and few are related to evaluation reforms. All these reforms are meant to improve the quality of school education. One of such reform is Open Book Examination (OBE) which must have designed to improve the quality of teaching learning and evaluation system of the school. Recently CBSE, New Delhi declared to implement Open Book Examination in this year 2014 for the board examination of standard X and XII. Likewise, educational thinkers and planners at central and state level are trying to focus on this educational reform at school level and it may be likely that within a few years most of the boards of examination may accept this following Open Book Examination the path followed by CBSE. Questions in the Open Book Examination will be different from the traditional examination, like answer of the questions will not be directly available in book;questions will be of more subjective with higher cognitive and affective domain and to answer those questions teachers have to manage students differently. It could be only possible in an atmosphere of teaching learning which could help learners to attempt an open book examination effectively. To achieve this teacher's role is very important. And teacher requires special abilities to carry on with teaching learning and evaluation using open book strategies. The present paper is trying to explain some of these abilities as competencies for open book examination and suggested few measures.

Competency

A pattern of thinking, feeling, acting or speaking that causes a person to be successful in a job or role. For example: persistence, interpersonal understanding, teamwork, self-confidence. The best competency studies statistically quantify the measurable competency differences between highly successful and less successful people in a given role. This enables organizations to focus on only those competencies most predictive of success. The best studies also identify the levels of increasingly successful behaviour within each competency. This enables organizations to make refined choices among job candidates and to focus development on a logical progression of increasingly successful behaviours.

A definition proposed by De Ketele (1996) is the following: "A competence is a set of organized capacities (activities), which act on contents in a given category of situations in order to solve a problem." In this definition a competence is describe as an ability to carry out a specified tusk or activity to predetermined standards of attainment.

According to De Bueger-Vander Borght C.(1996): "Competence refers to a state of being well-qualified to perform an activity, task or job function. When a person is competent to do something, he or she has achieved a state of competence that is recognizable and verifiable to a particular community of Practitioners. A competency, then, refers to the way that a state of competence can be demonstrated to the relevant community."

A "Competence" has been defined as a collection of resource (knowledge, know-how, knowledge to be) mobilized to solve problems in a particular contest. (Roegiers 1997, Jonnaert and Vander Borght 1999).

In general competency refers that, "persons having the necessary skill like pattern of thinking, feeling, acting or speaking and have a clear knowledge that causes a person to be successful in their jobs or roles. For example: persistence, interpersonal understanding, teamwork, self-confidence, planning for work , understanding and responding to management, using and developing knowledge, monitoring, creating an environment for work, communicating and working with others, understanding and meeting professional responsibilities.

Teacher Competency

Competence is usually associated with highly professional performance and there is a direct link in the field of education between a teacher's professional competence and pupil performance. There are two distinct meaning of competence in education. From a theoretical point of view, competence is understood as a cognitive structure that facilitates specified behaviours. From an operational point of view, competence seems to cover a broad range of higher order skills and behaviours that represents the ability to deal with complex, unpredictable situations. This operational definition includes knowledge, skills, attitudes, meta cognition and strategic thinking, and presupposes conscious and intentional decision making (Westera, 2001)

Competencies expected in a beginner teacher

- Planning for learning

- Understanding and responding to students

- Using and developing knowledge

- Teaching

- Monitoring, assessing and evaluating

- Creating a learning environment

- Communicating and working with others

- Understanding and meeting professional responsibilities

Turnaround Teacher Competencies: Four Clusters of Competence

These are the competencies – or consistent patterns of thinking, feeling, acting and speaking – needed for teacher success in a turnaround. According to The Chicago Public Education Fund,(June 2008). The competencies are arranged into four clusters of related capabilities.

Driving for Results Cluster – This cluster of competencies is concerned with the turnaround teacher's strong desire to achieve outstanding student learning results and the task-oriented actions required for success. Competencies in this cluster include: i) Achievement ii) Initiative and Persistence iii) Monitoring and Directiveness iv) Planning Ahead

Influencing for Results Cluster – This cluster of competencies is concerned with motivating others – students, other school staff, and parents – and influencing their thinking and behaviour to obtain student learning results. Competencies in this cluster include: i) Impact and Influence ii) Interpersonal Understanding iii) Teamwork

Problem Solving Cluster – This cluster of competencies is concerned with teachers' thinking to plan, organize and deliver instruction. Competencies in this cluster include: i) Analytical Thinking ii) Conceptual Thinking

Personal Effectiveness Cluster – This cluster of competencies is concerned with the turnaround teacher's self-management of emotions and personal beliefs that affect student learning. Competencies in this cluster include: i) Belief in Learning Potential ii) Self-Control iii) Self-Confidence iv) Flexibility

Open Book Examination

Open Book Examination is an alternative form of examination in which examinees are allowed to consult their class notes, text book and other approved material while answering examination questions. Though this practice is common in law examinations, it is mostly unheard in other subjects. Radical and puzzling through the idea may sound to those who are used to conventional examination; it is ideally suited to teaching programmes that especially aim at developing the skills of critical and creative thinking. Open book examination is meant for real life application of bookish and classroom knowledge using critical and creative thinking. (Mohanan, 1997)

There are mainly two kinds of open book examinations, say the *restricted* type and the *unrestricted* type. In the restricted type of open book examinations, students are permitted to bring into the examination room one or more specific documents approved by the teacher. In the unrestricted type of open book examinations, students are free to bring whatever they like to refer to the examination room. In the restricted open book examination, students may be permitted to consult printed documents such as, the logarithmic tables, dictionaries, or school atlas, but no handwritten material or printed documents which have not had prior approval. The use of such examinations presupposes certain preparation of students, teaching strategies, methods, and approaches, in short the teaching learning environment or Open Book Environment and specific types of questions.

Need of competencies in Open Book Examination

In an open book environment, teaching is not transferring information from the library or text books to the students' minds. Rather, true teaching is that teaching students how to learn i.e. teaching should equip students with the ability to acquire knowledge, to modify existing knowledge on the basis of new experience, to build new knowledge, and to apply available knowledge to solve problem and make intelligent decisions which is coinciding with some of the aspect of constructivist learning environment. According to this view, the main focus of teaching is the acquiring of skills, modifying and creating knowledge that is of processing information, rather than the information content itself. In this approach, the focus shifts from rote learning to the development of certain mental faculties which needs an environment to think about any content, analyse and synthesize it and will decide the application of the content knowledge in a suitable logical manner realizing the environment around him. It could be possible if ample freedom will be given to the learner to realize the

content, to ask the questions related to his doubt or confusion without any fear and will try find out the answer of those questions with the help of peer and the mentor, will find the suitable applications of the gained knowledge and will verify the application he/she chosen on the basis of suitable logic and thinking. To achieve this teacher's role is very important. And teacher requires special abilities to carry on with teaching learning and evaluation using open book strategies.

Various Competencies for teachers required while teaching using an open book environment:

Teacher requires special abilities to carry on with teaching learning and evaluation using open book strategies. The present paper is trying to explain some of these abilities as competencies for open book examination and suggested few measures.

Ability to create Open Book Environment Where students learn in a joyful environment: In an open book environment there is a need of this component where the teachers would know about the open book examination and open book environment, their features, their merits and demerits, how will it help them to overcome their problems, how will it help them for future etc. These components will help to create the environment of the class for a joyful teaching learning environment and help them to adhere the open book examination and open book environment by teachers.

To use constructivist approach of teaching: The constructivist theory which plays an important role in the field of education recently. It is an epistemology, learning meaning making theory based on the thought process involved in learning. Constructivism views learning as a process in which a learner actively constructs or builds new ideas on concepts based upon current knowledge. In other words, "learning involves constructing one's own experience. Knowledge is acquired through involvement with content instead of imitation or repetition" (Kroll & Laboskey, 1996).This learning process is supported by two broad principles: first, knowledge is not passively received, but actively constructed by the learner, and second, learners generate understanding when they relate prior knowledge to present experiences (Wheatley, 1991). Teachers have the ability to introduce this approach properly in classroom for teaching in Open Book Environment.

Ability to use of technology and multimedia approach in teaching learning: Though its capacities for storing, disseminating and processing information, ICT allows educationally attractive activities to be implemented. These activities can be done inside the classroom or, using the Internet, outside the classroom: at home, at a company…in fact anywhere. They also help establish new partnerships and roles (e.g., the group, the outsider, the community) and provide these new roles with the means to communicate. Many benefits (Wagner, 1997) can be expected concerning participation, feedback, knowledge retention and development, student evaluation supports, students' self-regulation, motivation, negotiated understanding and term building.

Involving students in co-operative Learning: Co-operative learning is an educational approach to teaching and learning that involves groups of learners working together to solve a problem, complete a tusk, or create a product. Thus, in a cooperative learning setting, learners have the opportunity to converse with peers, present and defend ideas, exchange diverse beliefs question other conceptual frameworks and are actively engaged.

Ability to construct Cognitive mapping/concept mapping skills: Concept mapping is seen as a useful tool for helping students learn about the structure of knowledge and the process of knowledge production or Meta knowledge. A graphical way of organizing thoughts and showing how concepts are related or differentiate. In contrast to students who learn by rote, students who employ meaningful learning are expected to retain knowledge over an extensive time span and find new related learning progressively easier. The processes can include Concept Mapping one's own knowledge, working with another to co-create a Concept Map, some other format into concept Maps. Teacher are expected to find out the possible concept mapping in the concept and accordingly can use. Mind Mapping is a useful techniques that helps teachers and students learn more effectively, improves the way they records information, and support and enhances creative problem solving.

Developing Decision making skills in students: According to Marom et al. (1991), "Decision making skill is the process of choosing what to do by considering the possible consequences of different choices". In other words, the body of knowledge concern with making selection from a range of alternative possible action is known as Decision Making Skill. At time of using Decision Making skill, an individual needs to

use critical thinking skill. Decision making process is a dynamic process because decisions are often interrelated and interdependent. The Decision making process has certain steps which an individual has to follow at the time of taking decision.

Implementing Problem-based learning: Problem based learning is an instructional method that challenges students to 'learn to learn', working cooperatively in groups to seek solutions to real-world problems. These problems are used to engage students' curiosity and initiate learning the subject matter. Problem-based learning prepares students to think critically and analytically and find and used appropriate learning resources. It is an instructional strategy which promotes active learning.

Ability to emerge answers of every question getting from the class: Teacher has to analyzing each and every answer (may be seems as wrong) of students in terms of its environment and background and providing hints and clues to the students on the basis of which students may modify their answer. It will help to create a democratic environment and leads the learners towards autonomy which will help the learner to think more.

Having hand on experience: Teacher have the ability to engage learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values through hand on experience like games, simulations, role plays, stories in classrooms etc.

Use of innovative approaches in teaching learning:

Using dialogue approach: A dialogue approach to education views that learners learn best when content relates to their experience in their own learning. Learners are invited to actively engage with the content being learned rather making learners autonomous and logical will make all their actions logical which in turn will make the class live and realistic. It will help the class to be naturalistic than being dependent on the educator for learning. Ideas are presented to learners as open questions to be reflected on and integrated into the learner's own context (Vella, 2004). The intent is that this will result in more meaningful learning that has an impact on behaviour.

Seminar conduction: Seminars have been conceived of in the present content as creative ways of enhancing academic work in schools and colleges in a manner that has traditionally not been thought of. The seminar method is a system which consists of a large variety of components or aspects that go into its mating. The teacher should

view the relevance of seminars from these aspects and try to tap its resources for the classroom.

Prepare students for meta-cognition / Meta thinking: Teacher has the ability to prepare students for meta-cognition refers to higher order thinking that involves active control over the thinking processes involved in learning. It is thinking about thinking and learning. Meta-cognitive skills are important not only in school, but throughout life.

Ability to prepare cognitive questions for cognitive lesson Plan: teacher have to prepare cognitive some questions from contents. These cognitive questions help the student for group discussion in a cognitive Lesson Plan. It helps the students to develop their higher order thinking skills and decision making skills.

Ability to prepare Question paper & Evaluation of answers sheets: Question preparation for an Open Book Examination is not a simple task. Teachers have to frame questions in a way where there is no answer come out from the book directly. Questions are on the basis of problem solving, critical & cognitive thinking skills and practical based. So teachers have to prepared question paper very seriously. Competence to do evaluation of the students activities at different steps of their work, to help them in their learning and to prepare them for the final evaluation. After the examination the teachers have a big job that is the evaluation of answer sheet, because all the answer of the questions is different from student to student. All the answers are differently because the different thinking skill of the student. So the teacher has to evaluate answer very carefully in different angle.

WAYS OUT

There is an immediate need to find the ways out for the teaching learning in an Open Book Environment. These are few ways out discussed in this paper as follow.

Planning for creating a learning environment for open book examination

Plans purposeful programs on OBE consider student development and learning in an open Book Environment by the help of the apex body or Government agencies. Communicate effectively with students, develops positive relationships with students, establishes clear and achievable expectations for students and encourages positive student behavior. Knows and uses a wide range of teaching approaches, designs

teaching programs to motivate and engage students, structures learning tasks effectively, demonstrates flexibility and responsiveness.

Proper Attitude towards Teaching in OBE

Teacher's attitude is a very important factor for the development of the teaching learning process. Open Book Examination is a new concept in Indian curriculum. For Open Book Examination Open Book Environment (OBEn) is necessary. OBEn helps students to acquire knowledge, to modify existing knowledge on the basis of new experience, to build new knowledge, and to apply available knowledge to solve problem and make intelligent decisions. The focus here is to develop certain higher level mental faculties among students. So any positive chances can be implemented in schools when teachers have a positive attitude towards teaching.

Competence to induce the devolution of this situation by the learners: They must be motivated to be active in this situation. They have competence to manage the situation, to improve debates and socio-cognitive conflicts, to hear the pupils and students, and to take into account their questions. They also have the competence to manage problems of violence, disorder and other difficulties in the classroom and to analyse their own reactions in these situations; to manage students' practical, theoretical or speculative works.

The Need for ICT Integration in Schools

ICT integration in schools is needed in order to accomplish many objectives and improve the quality of lessons in all subject areas. ICT increasingly pervades various aspects of our daily lives like work, business, teaching, learning, leisure and health. Since ICT leads all processes based on information, every individual in a society should become technology competent. Thus, all schools have to be equipped with the necessary ICT in order to provide the next generations with the needed tools and resources for access and use and to attain the expected skills. Norris, Sullivan and Poirot (2003) point out the importance of accessibility as: "…teachers' use of technology for curricular purposes is almost exclusively a function of their access to that technology" (p. 25).

Teachers' ICT Usage

The integration of information and communication technologies can help revitalize teachers and students. This can help to improve and develop the quality of education

by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnerships with ICT as a tool. Teachers' attitudes are major predictors of the use of new technologies in instructional settings. Teachers' attitudes toward ICT shape not only their own ICT experiences, but also the experiences of the students they teach. According to Zhao and Cziko (2001) three conditions are necessary for teachers to introduce ICT into their classrooms: Teachers should believe in the effectiveness of technology, teachers should believe that the use of technology will not cause any disturbances, and finally teachers should believe that they have control over technology.

Preparing Cognitive Lesson Planning for Open Book Examination

Our practice in teacher education is still based on limited 'lesson plans' aimed at achieving measurable 'behaviours'. In this view the teacher trainees and children are akin to creatures that can be trained mechanically with the help of few skills and competencies. There is a need to make the future teachers autonomous and creative rather than programming them. There is a need for a pragmatic and need based practice teaching. We need cognitive and spontaneous lesson planning which can allow the teachers to on the spot thinking and finding a way out to manage and tackle the dynamic classes.

Seminars and Workshops on Open Book Examination: Seminars, Conferences and workshops need to be organised by the apex agencies associated with education and educational research to come out with new methodologies for the development of the teaching methods and technical for the Open Book Examination.

Orientation programme for the teacher to improve their competency in teaching: Orientation programme is very necessary for teachers who are teaching in an Open Book Environment. Give proper information related to Open Book Examination & Open Book Environment is necessary for the teacher. For that teacher orientation programme is necessary. It can be possible through the Government efforts and also by the NGOs.

Giving equipment like laptop and software and other tools to the teacher in free of cost: Government have to providing free personal laptop to all the teachers free of cost for the improvement of their quality of teaching. And other related equipment like software related to teaching subjects also given to the teacher free of cost. Free

internet facility also given to the teacher to develop their knowledge and skills on the basis of technology.

Conclusion

In the perspective of a pedagogy based on competencies, the practices are the main goal of the teachers. Teachers have the competence as the ability in the use of technical and scientific apparatus and engineering, to define criteria of categorisation on the social dimension of the subject, competence to use internet& e-library etc. Teacher have the competence for a critical analysis of documents of their subject (journals, magazines, books, radio, TV, etc.).Teachers have the ability to identification of epistemological (and didactical) obstacles, to define new strategies of teaching focused on these obstacles and building of didactical situations adapted to learning. For instance, problem based situations, or projects (to realise individually or by little groups). The development of the professional competency of a teacher is incomplete unless it follows such types of professional ethics or code of conduct.

References

Aggarval J.C. (2005). *Essentials of Examination System.* New Delhi: Vikas Publishing House

Al-Bataineh, A., & Brooks, L. (2003). Challenges, advantages and disadvantages of instructional technology in the community college classroom. Community College Journal of Research and Practice, 27, 473-484.

Bhargava,A.&Pathy, M.(2011) Perception of Student Teachers about Teaching Competencies, American International Journal of Contemporary Research Vol. 1 No.1; July 2011

C. Hockemeyer (2003), Structures for Teaching and Testing Competencies, Talk at the 33rd European Mathematical Psychology Group (EMPG) Meeting, International University Madrid, Spain, August 26–30, 2003.

Das, B.N. (1993). Principle of Education in the Emerging Indian society,Ajanta Prakashan, Delhi.

De Bueger-Vander Borght C. (1996) L'épistémologie dans la pratique de la classe? Actes des XVIIièmes Journées Internationales sur la Communication, l'Education et la Culture Scientifiques et Techniques Chamonix : Giordan A. , Martinand J-L , 1995, pp. 193-196

De Ketele (1996), L'évaluation des acquis scolaires : quoi? Pourquoi? Pour quoi ? cited by Roegiers X. (2000) Une pédagogie de l'intégration. Compétences et intégration des acquis dans l'enseignement. Bruxelles. De Boeck p. 128.

Gulbahar, Y., & Guven, I. (2008). A Survey on ICT Usage and the Perceptions of Social Studies Teachers in Turkey. Educational Technology & Society, 11 (3), 37-51.

Kaur, D. (2009). Academic Achievement, Teaching Aptitude and the Personality Trait as the predictors of success in Elementary Teacher Training- A study, Retrieved from www.ab2007_iase_dushyant.pdf.

K. Korossy.(1997) Extending the theory of knowledge spaces: A competence-performance approach, ZeitschriftfurPsychologie, 205 (1997), 53–82.

Kothari Commission. (1966).*Report to the Education Commission, 1964-66.* New Delhi, India: Ministry of Education, Government of India.

Kulshrestha A.K 'Teachers Training and Professional Competencies' Voice of Research, Vol. 1 Issue 4, March 2013, ISSN No. 2277-7733

Mohanan, K.P. (1997) `*Open Book Examination-A Report and a Response to some Recurrent Concerns', Examination', Centre for Development of Teaching & Learning*, July, 1997, Vol.1, No.2 in www.cdtl.nus.edu.sg

National Knowledge Commission: NKC (2007). Report to the nation.

Norris, C., Sullivan, T. & Poirot, J. (2003). No access, no use, no impact: Snapshot surveys of educational technology in K-12. Journal of Research on Technology in Education, 36 (1), 15-27.

National Curriculum Framework- 2005. Report of NCERT, New Delhi.

Ramachandran. P.& Ramkumar, V.(2005).Education In India, National Book Trust, New Delhi.

School Turnaround Teachers: Competencies for success (2008). Public Impact for the Center for Comprehensive School Reform and Improvement.

Turnarounds with New Leaders and Staff. (2006). Public Impact for the Center for Comprehensive School Reform and Improvement.

Westera, W. (2001). Competences in education: A confusion of tongues. Journal of Curriculum Studies, 33(1), 75-88.

Williams, P. E. (2003). Roles and competences for Distance Education Programs in Higher Institutions. The American Journal of Distance Education, 17 (1), 45-57.

Zhao, Y. & Cziko, G. A. (2001). Teacher adoption of technology: a perceptual control theory perspective. Journal of Technology and Teacher Education, 9 (1), 5-30.6

THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA
CERTIFICATE

[As per O.Ph.D. 2 under UGC (Minimum Standards and Procedure for Awards of M.Phil./Ph.D. Degree) Regulation, 2009 for 15 Credits to be earned by Ph.D. Scholars]

This is to certify that **Milton Jana**   , Research Scholar, registered under UGC (*Minimum Standards and Procedure for Awards of M.Phil./Ph.D. Degree) Regulation, 2009*, vide Registration Certificate Number **188** dated **31/12/2012**, for pursuing Ph.D. on has undertaken and completed the course work with the Grade B.

STATEMENT OF CREDITS EARNED

Name of Research Scholar: **Milton Jana**

Faculty/Institution: Faculty of Education and Psychology

Department: Department of Education

Paper Number	Course Title	Course Credits	Grade Earned
Core Courses – 09 Credits *[Offered At University Level]*			
I.	Introduction To Research & Research Writings	3	D
II.	Introduction To Basic Computer Functions & Application For Research Purposes	3	B
III.	Quantitative Research Techniques & Data Analysis	3	B
Departmental Courses – 06 Credits *[Offered at Departmental Level]*			
IV.	Review of Related Literature	3	A
V.	Conceptual Framework	3	B
		Overall Grade	B

ACA3/45

Date of Issue: 11-03-2016
Place: Vadodara

Registrar (OSD) 21/3/16

Grade Conversion Table and Grade Calculation Formula

Grade	Grade Points	Range
O	10	Above 9.01
A	9	8.01 – 9.00
B	8	7.01 – 8.00
C	7	6.01 – 7.00
D	6	5.01 – 6.00
E	5	4.01 – 5.00
F	4	Below 4.00

$$Overall\ Grade = \frac{\sum (Grade\ Points \times Credits)}{\sum Credits}$$