

Development of Model Economics Lab

(PAC Programme No.16.23/2017-18)

विद्यया ऽ मृतमश्नुते



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Foreword

There is a need to make the teaching-learning process of Economics more meaningful, participatory activity-based and interesting. Most of the Economics teachers look forward to use of information and communication technology and wish to teach Economics in innovative ways. Experimental Economics is the application of experimental methods to study various questions pertaining to economics. Data collected from experiments are used to estimate size, test the validity of economic theories and illuminate market mechanism. Experiment may be conducted in the field or in laboratory settings.

Economics theories train students to think like a scientist, logically and rationally. In the learning process, students are exposed to the scientific methodology of collecting evidence, facts and figure and analysing them by using statistical tools and economics theories. For instance, in class XI, the project works in statistics allows students to demonstrate the skills of data collection - whether primary or secondary; and presentation, analysis and interpretation of data so as to arrive at a meaningful conclusion. This requires a laboratory equipped with necessary equipment like computer with internet connectivity and relevant software.

This document is the outcome of a five day workshop titled, "Development of Model Economics Lab" held in the Institute during February 8-12, 2018. The document consists of 24 modules (Practical work=17 + Project work=07) to support educators to conduct economics practicals in a more meaningful way and thereby to contextualise economics learning.

I would like to express my sincere gratitude to the Key Resources Persons, Teacher Educators and Teachers, who took keen interest and contributed for the development of this document. Dr. Premananda Sethy deserves appreciation for smooth coordination of the programme and preparation of the report.

This document, I hope, will be of immense help to the teachers and students for development of pedagogical tools and technique in the teaching- learning process through project work; and develop a model economics laboratory for conducting practical work at higher secondary school level in the country.

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CHAPTER-I

INTRODUCTION

1.1 Conceptual Understanding of Model Economics Lab

Generally, laboratory is a room or a block of building with scientific equipment for doing scientific research, experiments, tests, investigations, observations or for teaching practical of science subject like physics, chemistry, biology, zoology etc. In other words a laboratory is a facility that provides controlled conditions in which scientific or technical research, experiments and measurement may be performed. Computers are used for either simulations or analysis of data collected elsewhere. It is a workplace for the conduct of scientific research and offers opportunities for observation, practice and experiment. Altogether, it is a place for practice, observation or testing of collected data.

Economics is a subject/discipline of social science that distinguished from the physical, biological or environmental sciences, because it is concerned with the economic behaviour of "human beings as members of societies". We all know that human beings do not behave in the way as animals do when kept in laboratories. This poses a greater challenge to economists as they need to establish hypotheses and assumptions, which are general statements that formally show the existence of cause and effect relationships between observable events. Since people's behaviour cannot be controlled while learning and developing economic theories, students of economics allow for a large element of unpredictability in human behaviour. This makes generalisation and predictability difficult in economics. However, since we live in societies and behave mostly in an orderly manner, behaviour can be considered as predictable. Peterson says "*Economics offers a pleasing blend of the purely intellectual and the artistic, for pure economic analysis has the rigour and symmetry of science and mathematics, whereas the economic policy at par takes more the uncertain character of an art than a science. The policy maker must develop the skill to relate pure economic analysis to such real world problems as inflation, unemployment and poverty.*"

1.2: Views of Different Board of Higher Secondary Education on Economics Teaching & Learning

According to the CBSE (2008) document, the objectives of teaching economics at the higher secondary stage are: (i) make students to understand some basic economic concepts and developing economic reasoning which the learners can apply in their day-to-day life as citizens, workers and consumers; (ii) enable learners to realize their role in nation building and sensitize them to the economic issues that the nation is facing today. (iii) To equip learners with basic tools of economics and statistics to analyse economic issues. This is pertinent for even those who may not pursue this course beyond the higher secondary stage; (iv) To develop an understanding among students that there can be more than one view on any economic issue and to develop the skills to argue logically with reasoning.

Another national level agency **Council for the Indian School Certificate Examinations (CISCE)** provides the following as aims of teaching economics at the higher secondary stage: (i) To enable candidates to acquire knowledge (information) and develop an understanding of facts, terms, concepts, conventions, trends, principles, generalisations, assumptions, hypotheses, problems, processes, etc in Economics; (ii) To acquaint candidates with tools of economic analysis; (iii) To develop an understanding of important economic problems; (iv) To acquaint candidates with the main institutions through which the productive process is carried out; (v) To develop an understanding of the role of institutions in the functioning of an economy and (vi) To enable candidates to compare their own economic structure with that of the other areas of the world.

The **International Baccalaureate (IB) Organisation** offer diploma courses in its affiliated schools. It is equivalent to higher secondary stage in Indian boards. The IB syllabus document presents the aims of the economics course as follows: (i) provide students with a core knowledge of economics; (ii) encourage students to think critically about economics; (iii) promote an awareness and understanding of internationalism in economics; (iv) encourage students' development as independent learners; (iv) enable students to distinguish between positive and normative economics and (vi) enable students to recognize their own tendencies for bias.

The National curriculum Framework(NCF, 2005, recommend that children's life at school must be linked to the life outside the school. It is very much applicable in the area of economics. It marks a departure from the bookish learning and connects school, home and community. Practical attempts to discourage rote learning. The National Policy on Education(1986) and Programme of Action(1992) also duly recognise the activity-based learning approach under which the learner involves him/ herself effectively by the way of interactive process through observations, problem solving and gaining self experience by collection of data, analysing and then drawing conclusion.

CHAPTER-II

BACKGROUND OF THE PROGRAMME

2.1 Statement of Problems

Even though lecture is the important method with which economics is imparted in secondary students and chalk and black boards are the only aids used in economics classrooms, that scenario is changing. Thanks to globalization and information technology, a large number of economics teachers look forward to use of information technology and wish to teach economics in innovative ways. Experimental economics is the application of experimental methods to study economic questions. Data collected in experiments are used to estimate effect size, test the validity of economics theories, and illuminate market mechanisms. Economics experiments usually use cash to motivate subjects, in order to mimic real-world incentives. Experiments are used to help understand how and why markets and other exchange systems function as they do. A fundamental aspect of the subject is design of experiments. Experiments may be conducted in the field or in laboratory settings, whether of individual or group behaviour. Variants of the subject outside such formal confines include natural and quasi-natural experiments.

2.2 Rationale of the Study/Programme

Economic theories train students to think like a scientist - to put it rightly - as an economist - logically and rationally. In the learning process, students are exposed to the scientific methodology of collecting evidence - facts and figures and analyzing them by using statistical tools and economic theories. For instance, in Class XI, the statistics project work allows students to demonstrate the following skills:

- Collection of data - whether primary or secondary
- Interpretation and presentation of data and
- Analyzing data to come towards a meaningful conclusion to their findings.

Learning economics requires understanding of economic phenomena - relationship between various economic aspects of an economy. For this, students of economics gather/collect, measure and analyse information related to various economic

aspects. Since people's economic behaviour frequently manifests itself in measurable ways, the behaviour is coded and tabulated. They result in tables and large sets of numerical data. This data is used by young economists to interpret different economic situations. For instance, students of classes from class-VIII to class-X collect data relating to few economic variables for a specific project in social science. They might collect details of income and employment from households or income, expenditure and profitability of a particular establishment or enterprise say - a milk cooperative. These activities help them not only to understand the dynamics of a particular economic phenomenon of the group of households or an enterprise but also lays the foundations for learning economics.

In class XI they use the data collected earlier also called secondary data to develop insights into the Indian economy. For example, students enhance their understanding of the Indian economy by analysing data on the contribution made by various sectors to the Gross Domestic Product (GDP) of the economy. For example, some of the topics in economics like trend and pattern of the growth of agricultural production, public expenditure, population, industrial production, structural change in economy, growth of FDI in India etc are difficult to teach inside the classroom. So, it require lots of database as of primary survey and the numerical secondary sources of data published by official departments like Agricultural statistics, Census of India, Statistical Abstract, RBI bulletin etc. This require a laboratory to process the data in teaching and learning economics with necessary equipment like computer, SPSS, EView, Excel etc. So this proposal has been prepared for the development of pedagogical tool and technique for *model economic lab* in teaching-learning process of economics at higher secondary level of school education.

2.3 Specific Objectives:

1. To identify the infrastructure required for the development of model economics laboratory.
2. To develop the audio-visual teaching aids and self-learning resources or materials for economic laboratory to understand different concept of economics at higher secondary level of school education.

3. To promote the Project/Research Based Pedagogical Tool and Technique (RBPTT) for economics laboratory to analyze the economics data to draw the inference, know the factual information and understand about the problems of economy at higher secondary level of school education.
4. To prepare a documentation of innovative practices in teaching of economics at higher secondary level of school education.

2.4 Methodology

1. 1-days of planning meeting to explore the possibility of the infrastructure required, self-learning resources and development of pedagogical tool and technique for economics laboratory in school education (Activity-1).
2. 5-days of workshop to develop chapter-wise project/research based pedagogical tool and technique (RBPTT) for teaching and learning of economics at higher secondary level of school education (Activity-2).
3. 5- days of field work to collect the secondary data and materials from the various government offices like Census Office and Directorate of Economics & Statistics, of the respective states like Madhya Pradesh, Chhattisgarh, Maharashtra and Gujarat(Activity-3).

CHAPTER-III

INFRASTRUCTURE FOR MODEL ECONOMICS LAB

This chapter deals with the activity-1. In this activity-1, one-days of planning meeting was conducted on 17.01.2018 to explore the possibility of the infrastructure required, self-learning resources and formulate an exemplar format for development of pedagogical tool and technique for economics laboratory in school education.

3.1: Infrastructure Required for Model Economics Lab

The proposed required material and instruments purchase for model Economics Laboratory are as follows:

S. No	Requirement of Material and Instruments
1.	TA and DA for 15 days(by Train) for data collection from different state
2.	Purchase of Instruments
i)	Computer
ii)	Overhead Projector & Switch Board
iii)	Screen
iv)	Printer, Scanner and Photo copier
v)	Internet Connection
3.	Purchase of Technique/Package
i)	SPSS
ii)	E-View
iii)	Excel
4.	Purchase and Collection of Secondary Data
i)	Statistical Abstract
ii)	Primary Census Abstracts
iii)	Districts Census Handbook
iv)	Agricultural Statistics
v)	Agricultural Census
vi)	RBI Bulletin
vi)	Agri- Economics Survey
vii)	Finance Commission Report
viii)	Planning Commission Report
ix)	Budget Allocation Report
x)	Annual Survey of Industry(ASI)
xi)	India Brand Equity Foundation(IBEf)
xii)	Centre for Monitoring Indian Economy(CMI) Report
xii)	Federation of Indian Chamber of Commerce and Industries(FICCI)
xiii)	Association of Chamber of Commerce and Industries of Industries

	(ASSOCHAM)Report
xiv)	Economic Survey of India
xv)	Handbook of Statistics
5.	Purchase of Furniture and Electrics Equipments and Others
i)	Computer Table
ii)	Chair
iii)	Electrical Equipments
iv)	Spilt AC
v)	A room for setting lab
vi)	White washing and painting
vii)	Other Maintenance work of the Lab
Viii)	Bookshelf Almirah for keeping secondary data
6.	Printing and Binding of Report for documentation in Lab
7.	Others materials
i)	Economic Atlas
ii)	Economics Maps of Indian/ Asia/World
iii)	Globe with Economic Division
iv)	Charts & Diagrams on Economics content of class-XI and XII
v)	Reference and supplementary books of the course content of economics-XI and XII
vi)	Encyclopaedia
vii)	Dictionary
viii)	Economic journal
ix)	Trained Lab technician
x)	Graph paper
xi)	Geometry boxes
xii)	Portraits (Pictures) of great economist.
	TOTAL

3.2: Exemplar Format for development of chapter-wise RBPTT/PBPTT in Economics

The exemplar format for the development of chapter-wise Research/Project-Based Pedagogical Tools and Technique (RBPTT/PBPTT) in Economics Teaching and learning is given below.

Development of chapter-wise Research/Project-Based Pedagogical Tools and Technique (RBPTT/PBPTT) in Economics Teaching & Learning

1. Topic
2. Learning Outcome
3. Introduction:
 - Conceptual Framework
 - Theoretical Background
 - Review of related literature studied by other and the methodology used and their findings (3 Conceptual Research Papers related to topics)
 - Rational of the topic
 - Statement of Problem
4. Learning Objective
5. Database: Sources of Data Collection
 - Primary data or Secondary data
 - Time series data or cross section data
 - Quantitative data or Qualitative data
6. Methodology: sample design
 - Sampling Technique
 - Sample size minimum 30 observations or respondent
 - (i) Primary Data: Procedure to do project
 - Tools for data collection: Questionnaire
 - Classification of data
 - Tabulation of data(generate sub table with reference to difference variable)
 - Presentation of data-(use of tables, graphs, bar diagram, pia chart etc.....)
 - (ii) Secondary Data (CSO data, Census data, Agricultural statistics etc.....)
7. Technique for Data Management (Suggest Package like Excel, SPSS, Eviews etc....)
8. Methods for Data Analysis (Suggests the statistical methods like correlation, Std. Deviation, CV, Mean, Gini coefficient, index number etc....)
9. Summary:
 - Result & Discussion of main findings
 - Interpretation of main findings
 - Critical thinking and analysis
 - Conclusion
10. Self-check exercise.
11. Suggested Readings

CHAPTER-IV

RESEARCH-BASED PEDAGOGICAL TOOLS

In order to achieve third objectives of the programme an attempt has been made to promote the Project/Research Based Pedagogical Tool and Technique (RBPTT) for economic laboratory to analyze the economic data to draw the inference, know the factual information and understand about the problems of economy at higher secondary level of school education. A presentation was given by Prof. L.K. Tiwary on Research Based Pedagogical Tool and Techniques (RBPTT). On the basis of this idea, the following research activities are done by the students as suggested the resource person in the workshops conducted during 8-12, February, 2018. His presentation was as follows:

Research Based Pedagogical Tools

L.K.Tiwary

RIE, Bhopal

- High Quality STEM education paves the way for excellence in science and technology in the longer term.
- Newton Bhabha, in partnership with IISER, Pune ran set of five parallel workshops aimed to train STEM teachers from various UG Colleges and Universities in India to develop, test and adopt research projects as pedagogical tools to be used in their colleges.
- The British Council helps to deliver the Newton-Bhabha in India for the UKs Department for Business, energy and Industrial Strategy. It works in a range of significant areas improving STEM education programmes, providing overseas Ph.D Placements, and linking researchers and research Institutions.
- DBT, in collaboration with Newton-Bhabha is supporting improvement of UG science education by training teachers across India on RBPT.
- Over thousand STAR College teachers to be trained in 3 years.

- IISER, Pune, recognized as Nodal Agency, Conducted first RBPT Workshop in 2016.
- Method to disseminate totally development innovative methods in teaching.
- British Council to provide education experts from UK.
- Teachers to be trained in three cycles.

FIRST CYCLE	- Training of KRPs in IISER Pune, Mohali and Tejpur
SECOND CYCLE	Short listing teachers from above workshops and providing special training to these teachers in IISER, Pune in March 2017
THIRD CYCLE	Training of STAR College teachers in different regions. The teachers trained in second cycle will act as RPs

What Makes a Good Problem for an RBPT?

Why Problems?

Problems, in general, are at the heart of PBL. They function as content and knowledge organiser, learning environment contextualises, thinking/reasoning stimulator and learning motivator.

3 C3R Problem model

- Complex enough to be development but not so difficult that they insure failure.

CONTEXT

Context information should be:

- Detailed enough to be authentic
- Situated so as to be appropriate - professionally and culturally.
- Complicated enough to require deep thinking.

CONNECTIONS

Connections made should be :

- Necessary
- Valued - These are what will make the difference between deep thinking and box-ticking.
- Specified - These connections are the evidence of HOTS.

RESEARCHING

Students Must:

- Identify and Collect the key knowledge and understanding required - without overt support.
- Research and develop any missing knowledge.
- Deploy the knowledge - as it relates to the problem set.

REASONING:

Students Must :

- Own the content, context and connections they had made/are making and their relationship to the problem.
- Interpret new data in the Light of a growing solution/model and integrate it intelligently.

REFLECTING

Students Must:

- Think about what they have learnt - and how they have learnt it.
- Develop resilient, integrated cognitive structures.

What makes a Convincing context?

Why is context so important?

- Presenting science knowledge in meaningful contexts eases the complexity normally attendant upon transferring information learned in school to non-school context.
- Additionally, the controversial aspects of socio-scientific issues make them inherently engaging and interesting.

Engaging contexts are:

- Provocative - They excite interest, raise questions and link it to a learning objective so that students learn meaningfully - connect what they know
- Authentic - If we want them to apply to life, our tasks should to some extent stimulate those, so they can more easily transfer and show purpose for learning content and skills.
- Integrated - Decisions in real life require both knowledge about science content, and nature of science and procedural skills in order to use it.

IMPLEMENTING RBPTs, PRACTICAL ISSUES:

Developing undergraduate research and inquiry -

- Develop supportive institutional strategies.
- Encourage and support student awareness.
- Encourage staff awareness.
- Support and reward student engagement.

How far do you plan to integrate RBPTs?

- What is the current balance between content knowledge and application skills?

- Are there specific research and practical skills you want to include.
What are your short terms and long term aims?

How does your college want students to see themselves?

- Student : Passive learners.
- Apprentices : Active participants.
- Researchers : Potential or Current contributors to the scientific/mathematical
Community.

Staffing issues:

- Ethos
- Acceptance
- Skill
- Organisation

Action Planning

- Trailing the RBPT you have created.
- Evaluating the impact.
- Widening the strategy.

Success Criteria of RBPT

SR (Success Criteria)

- Recognize
- Requires
- Refines
- Rewards
- Reports

Assessment and RBPTs

How you assess

Take a moment to consider assessment practices you and your colleagues use

- Formative
- Summative
- Can they be used with RBPTs
- Can they be adopted for use with RBPTs
- Are there other assessment methods that could work were ?
- Things to consider

What is to be assessed?

- Knowledge?
- Skills?
- Thing to consider
- Who is assessing?
- Self assessment?
- Peer assessment?
- Thing to consider

Learning outcomes:

- Are your outcomes clear, both to instructors and students?
- Not only will the task be difficult for your learner, but assessment of RBPT reports/tasks will be extremely challenging if the intended outcomes are not clearly stated.

Effective questioning

- Whilst running the RBPT, you have planned questions you can ask your students to facilitate their learning journey.

- Socratic (open-ended) questions are especially good for this form of assessment. They assist the learner through the task without giving answers. You can gauge their progress through the task, and their comprehension.
- Use the bookmarks to help plan your questions.

Six global challenge issues

- Air
- Climate Change
- Energy
- Food
- Health
- Water

PUPIL RESEARCHER INITIATIVE

- Pupils as research students and teachers as supervisor.
- Seeking funding for project for a new research project on reducing pollution from motor vehicles.
- Pupils are asked to prepare case for support in the form of a research proposal in three sections.
- The Project will go to research council to decide whether the project deserves support.

Experimental and Investigative skills

- Planning experimental procedures
- Obtaining Evidence
- Analyzing evidence and drawing conclusions.
- Evaluating Evidence.

Pupil Grouping

Initial briefing - Whole class, teachers introduces the topic

	Memo -	Individuals or small groups of 2 or 3
Paper 1	-	Groups of 2 or 3

Paper 2 - Groups of 2 or 3

Paper 3 - Groups of 2 or 3

Communication Timing - Activities -

Compilation of research proposals in small groups and whole class discussion of work for 3-5 hrs in regular timing, some work as home work. Pupils should be issued with study guide, which provides them with a summary of what they should produce as they work through the brief. The memo requires the pupils to work their way through the three papers in order. The papers are from fictitious journals, and have some cross referencing between them reflecting the nature of real research papers. The research director has written notes on the papers which suggest things the research team should do. Pupils could keep track of which sections they have completed using the study guide.

Practical No.-4.1

Title: Cost Analysis

Introduction:

Cost analysis is a comparison costs used to prepare financial statement. Costs may be controllable or non-controllable and one subject to time periods and constraints. Costs are classified according to their behaviour. Cost behaviour is how the cost responds to change in the level of the economic activity.

Rationale

From a common man understanding cost of production of a commodity refers to the expenses insured on acquiring various inputs required in the production. Economists take a broader view of the cost concept. Economic cost included explicit as well as implicit costs.

Objectives / Learning outcomes

1. After completion of the learner will describe the concept of different costs such as fixed cost, variable cost, explicit costs and implicit cost.
2. Explain the behaviour of cost of production as the level of output increases or decreases.
3. Discuss the relationship between different costs behaviour with reference to output.

Database: Data Source

Data may be provided by the teachers either hypothetical or actual. To work with primary source of data teacher may ask students to collect data through structured questionnaire from small scale or cottage industries or village enterprise.

Methodology

After gathering data either through primary source or through secondary source, students must be advised to get these data in tabular form after classification. They must be asked to undertake following activities.

1. Find fixed cost, variable cost, total cost and marginal cost.
2. Find the relationship between FC, VC, TC and MC with the help of diagram on a graph paper.

Tools: Questionnaire

General information

1. Organisation Name
2. Address
3. Name of the Owner
4. Other contact details. Address
5. Your business purpose/ industry
6. Product type

Organisational Details

1. Year of Establishment:
2. Total Number of Employee:
3. Number of permanent employee
4. Number of Irregular employee
5. Number of working hours
6. Number of salaried employee
7. Location (Rural /Urban)
8. Is there any other branch if your firm (Yes/No). If yes, number of branches
9. Number of pay periods per years. Daily/Weekly/Monthly
10. Estimated Annual salary expenditure
11. Estimated other burden on employee. PF/GIS/ compensation house/ in kind
12. Number of unit produced in a year category wise.
13. Estimated cost of plant and machinery
14. Estimated depreciation since establishment
15. Estimated annual expenditure on variable inputs other than labour/ manpower
16. Estimated cost on advertising if any
17. Estimated cost on marketing
18. Estimated average amount of yearly revenue generated
19. Estimated total variable cost of product/service in a year.

Technique: To treat data student may use appropriate statistical tool using excel software of the MS Office.

Data Analysis: Student must analysis the data on the basis of type of production size of production, location of production etc.

Practical No- 4.2

Title: Market Equilibrium under Perfect Competition

Learning Outcomes/Objective

After completion of this practical the learner will :

1. Discuss the concept of equilibrium Price.
2. Explain the mechanism for determination of price and quantity under perfect completion.
3. State the meaning of price control
4. Elaborate the consequences of price control

Introduction:

Equilibrium in perfect completion is the point where market demand is equal to market supply. A firm's price will be determined at this point. If there is any inequality between the two forces, the auto adjustment mechanism of the market adjusts the disequilibrium to maintain a unique price for the product. If a maximum price limit is imposed on the price of certain commodity than it is called price control, price rationing or price ceiling.

Activity

Q.1. If demand and supply curve of commodity X in a perfectly competitive market are given by

$$Q_p = 700 - p$$

$$Q_s = 500 + 3p \quad \text{for } p \geq 15$$

$$= 0 \quad 0 \leq p < 15$$

Assume that the market consists of identical firms. Identify reason behind the market supply of commodity X being 5000 at any price less than Rs 15. What will be the equilibrium price for this commodity. At equilibrium, what quantity of X will be produced.

Q.2. If demand and supply curves of salt one given by

$$Q_p = 1000 - P$$

$$Q_s = 700 + 2p$$

- a) Find the equilibrium price and quantity
- b) Now suppose that the price of an impute used to produce salt has increased. so that the new supply curve is

$$Q_s = 400 + 2p$$

How does the equilibrium price and quantity change? Does the change confirm to your expectation.

- c) Suppose Government has imposed a tax of Rs 3/ unit on sale of salt. How does it affect the equilibrium price and quantity?

Q.3. Point out the point where price & output will be determined. Draw figures depicting following condition

- i) Effect of increase in demand on equilibrium price and equilibrium quantity.
- ii) Effect of decrease in demand on equilibrium price and equilibrium quantity.
- iii) Effect of increase in supply on equilibrium price and equilibrium quantity.
- iv) Effect of increase in supply on equilibrium price and equilibrium quantity.

Q.4. collect the data regarding knowledge towards price rationing and its consequence.

Sample Questionnaire on Price Rationing

General Information

1. Name respondent of household:
2. Age:
3. Sex:
4. Educational Qualification
5. Religion
6. Category (SC/ST/OBC/Gen)
7. Do you know about the rationing
8. How is it important?
9. Your suggestion to improve the situation.

Specific Information

1. Do you know about price ceiling? Control. If yes, then proceed to next question
2. On what commodity do you get commodities at control rate 1,2,3,4,5.
3. Please specify regarding market price and for above mentioned commodities

Rate	MP	RP	Different
1			
2			
3			
4			
5			

4. Have you ever felt shortage of the above mentioned commodities? It yes
5. How often do you face shortage of the above commodity

1	Very often, often, seldom
2	Very often, often, seldom
3	Very often, often, seldom
4	Very often, often, seldom
5	Very often, often, seldom

6. Do you feel this shortage leads to black marketing?
7. Your suggestion to improve the situation

Practical No- 4.3

Title: Consumer's Equilibrium

When consumers make choices about the quantity of goods and services to consume, it is presumed that their objective is to **maximize total utility**. In maximizing total utility, the consumer faces a number of **constraints**, the most important of which are the consumer's *income* and the *prices* of the goods and services that the consumer wishes to consume. The consumer's effort to maximize total utility, subject to these constraints, is referred to as the **consumer's problem**. The solution to the consumer's problem, which entails decisions about how much the consumer will consume of a number of goods and services, is referred to as **consumer equilibrium**.

Determination of consumer equilibrium.

Consider the simple case of a consumer who cares about consuming only two goods: good 1 and good 2. This consumer knows the prices of goods 1 and 2 and has a fixed income or budget that can be used to purchase quantities of goods 1 and 2. The consumer will purchase quantities of goods 1 and 2 so as to completely exhaust the budget for such purchases. The actual quantities purchased of each good are determined by the condition for consumer equilibrium, which is

$$\frac{\text{marginal utility of good 1}}{\text{price of good 1}} = \frac{\text{marginal utility of good 2}}{\text{price of good 2}} = \dots = \frac{\text{marginal utility of good } N}{\text{price of good } N}$$

Source:<https://www.cliffsnotes.com/study-guides/economics/theory-of-the-consumer/consumer-equilibrium>

Learning Objectives/outcomes

After completion of this the learner will :

1. Explain the concept of consumer Behaviour through consumer's equilibrium.

2. Differentiate the concept of total utility, marginal utility and the relationship between MU and TU
3. Describe the condition for consumer's equilibrium in terms of utility analysis.

Activity-1: Find the Marginal and Total Utility from the following schedule

Unit of consumed	Total Utility	Marginal Utility
0	0	
1	6	
2	8	
3	10	
4	12	
5	12	
6	11	
7	9	
8	6	
9	5	
10	4	

Activity-2: If Price of commodity X and Y are given Rs. 5/unit and Rs 10/unit and income is also given as Rs. 100. Find the level of consumption of the two goods, where a consumer may maximise her satisfaction and total utility from the following utility scheduled

Units	MU _x	MU _y
1	60	
2	55	
3	50	
4	45	
5	40	
6	35	
7	30	

8	25	
9	20	
10	15	

Activity-3: Depict the MU and TU with the help of above schedule through diagram on a graph paper.

Summary

Consumer's equilibrium is important for the consumers for their behaviour towards consuming different commodities given his income and prices of the commodity. Behavioural economics is getting importance now-a-days. It studies the effects of social, psychological and emotional factor on the economic decision of individual and institutional and the consequence for market price, returns and resource allocation.

Practical No- 4.4

Title: Aggregate Demand

Introduction:

For most of the 20th century, the world was apparently divided into two separate camps of east and west. To the west of what was deemed "the Iron Curtain," governments were formed and operated under democratic principles, whereas eastward, the communist regime held fast. Economically, western infrastructure hinged on the free market and private industry; in the east, the government was the central figure in virtually any business development undertaking.

Of course, this view of the 20th century is at best an overgeneralization of the true situation, which was far more complex. After all, the political environment in the United States diverges considerably from that of France, Germany, Spain and Great Britain (as it does from non-European democracies in Japan, Turkey and India). The Soviet version of Karl Marx's communist ideal differed sharply from the regimes in China, North Vietnam and Cuba. Indeed, the concept of a "bipolar" 20th century world was largely based on generalizations and politically-charged rhetoric: Democracy was democracy and communism was communism.

The truth behind the perceived international economic dichotomy was equally oversimplified. The "People's Republic of China," for example, saw enormous economic strides throughout the 20th century, despite several stumbles back into situations that charged citizens with ethereal, idealistic rhetoric that did little but return that nation to an isolated communist world. Having moved away from the posturing that gave rise to debacles like the Cultural Revolution and the Great Leap Forward, China is now one of the most powerful economies in the world, enjoying unparalleled growth and stature among industrialized nations. The economic architects of China, which was frequently detached from the western world as "just another communist country" and (at least according to party leaders) proud to be labeled as such, felt comfortable departing from Marxist economics and installing the free and private markets that saw success in the West.

Conversely, the United States economy, while ideally free to grow without government intervention, has long featured connections to virtually every level of government. One of the clearest examples of this fact is the American response to the Great Depression of the 1930s. Smoot-Hawley, which raised tariffs and fortified barriers to economic recovery, is a case in point. In fact, one of the most prominent theories of economic development spawned during that same period in US history: The teachings of economist J.M. Keynes. Keynes's concepts, which will be given better light in this paper, entail a call for government-introduced financial infusion into a troubled economy (Stegman, 2004) in order to stimulate aggregate demand. Few adherents to the purist view of a "free market versus communist" world would call Keynes's government bailout representative of the tenets of a western political economy.

Social upheavals and/or conflicts, such as China's Cultural Revolution (during which thousands died and China spiraled into economic collapse) and the Great Depression give credence to an important point. When a nation is struggling to reemerge economically from social conflict, civil war or regime changes, they may find solace in creating linkages between government and the economy in order to stimulate aggregate demand.

This article takes a critical look at aggregate demand as a focal point around which economic recovery from political tumult is often built. Employing the ideals of Keynes and the assessments of political economy experts and observers, this paper reviews the examples of three economies that were hit hard by conflict, drastic regime change or civil war, each of which focuses on aggregate demand as a key to fiscal rejuvenation.

<https://www.enotes.com/research-starters/elasticity>

Review of Literature

One cannot have a thriving economy without consumers. Aggregate demand, the total demand for goods and services within a nation's economy, hinges on the attitudes of the buying public (National Council on Economic Education, 2007). High prices, product

reliability and industry confidence all play a role in aggregate demand and, concurrently, supply. In times of recession, low consumer confidence causes people to reduce their spending and, therefore, aggregate demand flags. Conversely, in times of fiscal health, above-average incomes foster higher demand and consequently, prices. Aggregate demand and supply, therefore, are inversely proportional to one another. The difficulty lies in balancing between the two elements; facilitating economic health without risking inflation or recession. The unenviable task usually falls to lawmakers and regulators.

In the 1930s, as the United States suffered the throes of the Great Depression, attitudes abounded as to how to address the situation. For some, signs pointed to the fact that, despite the horrific fiscal state of the union at the time, the United States was in fact continuing to evolve into a prominent world power. In the minds of these economists, the market would correct itself and needed no intervention. Conversely, British economist John Maynard Keynes, in his treatise, *General Theory of Employment, Interest and Money*, operated from the perspective that the market system was not macro-economically self-sustaining. As one scholar observes, Keynes "thought that the framework of institutions, rules and policies needed to maintain the 'full potentialities of production' was, while not impossible to set up, more elaborate and expensive than that specified by market optimists." (Skidelski, 2005).

As the polarity among economists seeking an end to market tumult continued, a rather interesting irony emerged: The Soviets remained convinced that the market would correct itself, and held off on instituting corrective economic policies. Keynes, however, felt that the keys lied in reducing unemployment, increasing demand and encouraging investment. A comparison of the two economic regimes demonstrates with great clarity which approach proved successful:

"Keynes's economics provided an important aid to the morale of Western society and its leadership, the Great Depression having badly shaken confidence in the free-enterprise economy. Governmental planning in the Keynesian sense prevented a repetition of high unemployment and dizzying consumption and production plunges, while Soviet economic security became arthritic to the point of paralysis. In the longer competition we know who won" (Felix, 2004, p. 62).

As evidenced by the response to one of the worst economic crises in American history, employing fiscal policy in selective arenas of a free market economy (namely, protecting and/or enhancing the demand side) can be seen as a useful tool for economic revitalization, particularly in times of significant tumult. As the following examples demonstrate, targeted corrective measures designed to bolster consumer confidence and investment can help return an economy to the right track as a nation recovers from large-scale conflict and/or upheaval.

Objective of the Study:

After completion of this practical the learner will :

- (1) Demonstrate a broad and deep understanding of the core areas of advanced microeconomics.
- (2) Apply appropriate techniques for solving theoretical problems in advanced microeconomics and answer questions relating to the behavior of economic agents.
- (3) Explain the relevant techniques and the answers they produce using written English
- (4) Present some applications and insights to undergraduate students on the topic of elasticity, this essay contains discourse that aims to facilitate their understanding of the concept. The essay addresses several variants of elasticity along with definitions, calculations, and examples. A large portion of this essay covers price, cross, and income elasticity of demand. The author devotes an ample amount of attention to those demand elasticity striving to alleviate learning difficulties. Frequently, students encounter problems associated with line graph characteristics, expenditure and revenue changes, and elasticity determinants. The article also presents price elasticity of supply and its comparative relevance to those who incur the tax burden on some items.

Data Base:

Cigarette smokers, beer drinkers, and motor vehicle drivers are consumers whom are likely to identify most readily with the elasticity concept. Examples pertaining to alcohol and tobacco will follow later, but gasoline prices serve as an excellent example for starters. Motor vehicle drivers these days probably retain their awareness of the daily price for gasoline and its fluctuations during any given period. Furthermore, it is likely that these consumers will purchase greater quantities when the price of gasoline falls and fewer quantities when the price rises. Calculations of the price elasticity of demand for gasoline allow us to determine precisely in percentage terms how sensitive drivers' purchases of fuel are in response to changes in its price. Though most dislike rising gasoline prices and generate some noise about it, the evidence strongly suggests that consumer demand is unresponsive or inelastic as they tend to purchase the same amounts over time irrespective of price. To explore this observation further, students need to understand demand elasticity coefficients, calculate them, and determine whether demand for gasoline is truly inelastic.

Guell (2007, p. 41) summarizes a few studies on the price elasticity of demand for gasoline by informing us that any given 10 percent increase in its price will result in a decrease of less than 3 percent in quantities purchased; coincidentally, the gasoline prices tend to fluctuate by 10 percent or more during any given week. The latter percentage varies depending on how long consumers have to adjust their driving and spending habits; for example, the amount of gasoline in their car's tank and the remoteness of their geographic location jointly influence whether they can afford to shop for cheaper gasoline. Research on price elasticity of demand for gasoline also shows the coefficient is 0.08 in the "short-run" and it is 0.24 in the "long-run."

Data Analysis: Note the simplifying omission of the negative sign from the aforementioned coefficients because of the explicit inverse relationship that exists between price and quantity demanded. Calculations of the elasticity coefficient involve division of the percentage change in quantity demanded by the percentage change in price. The coefficient is unit free and its basic formula is:

Percent change in quantity demanded/Percent change in price

Percent change is the observed difference between two points, namely the starting point and the endpoint, divided by the value at the starting point. Readers of textbooks will find variants in the formula that are merely designed to accommodate calculations whether one holds an interest in the observing the elasticity at the starting point, the endpoint, or somewhere near the middle of those two points and when facing different shapes of the line that represents all the price-quantity combinations.

Another justification for omitting the negative sign is to simplify interpretations of a price elasticity of demand coefficient by examining it as an absolute term. In the broadest sense, we can think about and talk about elasticity of a specific item at its extremes along a demand spectrum. The demand for an item is either elastic, inelastic, or unitary elastic when the respective coefficient as an absolute term is greater than one, less than one, or equal to one. The coefficient in the gasoline example is less than one, which informs us that the demand for gasoline is inelastic; in other words, consumers are unresponsive to changes in the price of gasoline. We generally dislike the price hike, but collectively gasoline consumers maintain their purchase levels.

Think of the larger array of items that you purchase on a regular basis. My guess is that readers of this article, like other consumers, are more responsive to changes in price for some items and not so for other items. In absolute terms, price elasticity of demand coefficients range between zero and infinity extending outwardly from unitary elasticity, which is where the coefficient is equal to one. Those extremes carry specific names. At one extreme, your purchases of an item will cease or go to zero quantity when a price increase occurs. Demand is perfectly elastic in this instance. At another extreme, your purchases of an item will remain the same regardless of price. Demand is perfectly inelastic in this instance.

References:

1. **Issues in Economics Today** by Robert C. Guell (2007, Hardcover) The McGraw-hill/Irwin Series in Economics

Practical No- 4.5

Title: Elasticity of Demand

Introduction:

Elasticity is a concept of central importance to business, marketing, and economics. Studies in economics begin by expressing the importance of the *ceteris paribus* (translation means all else is held constant) assumption and by focusing on relationships between the possible prices of an item and the quantities consumers are willing and able to purchase at each price; likewise, the quantities suppliers are willing and able to produce. On the consumer or demand side, students learn very early in their coursework that an inverse relationship exists between price and quantity in accordance with the Law of Demand. Relatively speaking, smaller amounts are in demand at higher prices and vice versa. On the producer or supply side, they learn that a positive relationship exists according to the Law of Supply. Whether one chooses to focus on demand or on supply, elasticity is a concept that helps us to understand in precise terms exactly how much quantity changes in response to a price change.

Many students who complete and evaluate introductory courses in economics for non-business majors find the elasticity topic easy to comprehend. In addition, they report that the topic makes perfect sense to them and is highly relevant to their everyday exchanges. However, they report having difficulties mastering the varied types (price, income, and cross) of elasticity. To overcome these obstacles they encourage other students to elicit examples from their professors and to practice calculating, interpreting, and applying elasticity.

Review of Literature

Some commonly used textbooks in economics (Guell, 2007; McConnell & Brue, 2008; Parkin, 2000) provide basic topical coverage, but unfortunately very few articles found during a recent search of electronic publications present economic elasticity in a straightforward manner, without references and narrow application to a specific context. Furthermore, those contexts usually require readers to have an advanced understanding

of economics and other business disciplines. In a demonstration of how the elasticity concept is relevant to marketing, Dickinson (2002) makes the case that text book presentations of elasticity provide a weak foundation for studying price-quantity interactions and for simulating behavioral complexities of consumers in the marketplace. From an economics education perspective, this article represents one effort to facilitate an undergraduate student's understanding of the elasticity concept

Guell (2007, p. 41) summarizes a few studies on the price elasticity of demand for gasoline by informing us that any given 10 percent increase in its price will result in a decrease of less than 3 percent in quantities purchased; coincidentally, the gasoline prices tend to fluctuate by 10 percent or more during any given week. The latter percentage varies depending on how long consumers have to adjust their driving and spending habits; for example, the amount of gasoline in their car's tank and the remoteness of their geographic location jointly influence whether they can afford to shop for cheaper gasoline. Research on price elasticity of demand for gasoline also shows the coefficient is 0.08 in the "short-run" and it is 0.24 in the "long-run."

Learning Outcomes/Objective of the Study:

After completion of this practical the learner will :

1. Demonstrate a broad and deep understanding of this core area of microeconomics.
2. Apply appropriate techniques for solving theoretical problems in answering questions relating to elasticity of demand.
3. Present price elasticity of supply and discuss its comparative relevance

Data Base

Cigarette smokers, vegetable purchaser, and motor vehicle drivers are consumers whom are likely to identify most readily with the elasticity concept. Examples pertaining to

vegetables and tobacco will follow later, but petroleum prices serve as an excellent example for starters. Motor vehicle drivers these days probably retain their awareness of the daily price for petrol and its fluctuations during any given period. Furthermore, it is likely that these consumers will purchase greater quantities when the price of petrol falls and fewer quantities when the price rises. Calculations of the price elasticity of demand for petrol allow us to determine precisely in percentage terms how sensitive drivers' purchases of fuel are in response to changes in its price. Though most dislike rising petrol prices and generate some noise about it, the evidence strongly suggests that consumer demand is unresponsive or inelastic as they tend to purchase the same amounts over time irrespective of price. To explore this observation further, students need to understand demand elasticity coefficients, calculate them, and determine whether demand for petrol is truly inelastic.

Methodology

Student may adopt methodology as per requirement of the topic selected by the students priority should be given for primary sources of data as it will provide them exposure to encounter with ground realities and problems to be faced during data collections. Sample size should be small say than 30 units (i.e. households or consumers randomly selected and produced etc)

Calculations of the elasticity coefficient involve division of the percentage change in quantity demanded by the percentage change in price. The coefficient is unit free and its basic formula is:

$$E_p = \text{Percent change in quantity demanded} / \text{Percent change in price}$$

Percent change is the observed difference between two points, namely the starting point and the endpoint, divided by the value at the starting point. Readers of textbooks will find variants in the formula that are Another justification for omitting the negative sign is to simplify interpretations of a price elasticity of demand coefficient by examining it as an absolute term. In the broadest sense, we can think about and talk about elasticity of a specific item at its extremes along a demand spectrum. The demand for an item is either

elastic, inelastic, or unitary elastic when the respective coefficient as an absolute term is greater than one, less than one, or equal to one. The coefficient in the gasoline example is less than one, which informs us that the demand for gasoline is inelastic; in other words, consumers are unresponsive to changes in the price of gasoline. We generally dislike the price hike, but collectively gasoline consumers maintain their purchase levels.

Questionnaire

General Information

1. Name of the respondent(Preferably head of the HH)
2. Age
3. Sex
4. Marital Status: married/unmarried/separated/divorced/widowed
5. Size of family
6. Location of Residence: (Rural/Urban)
7. Religion: (Jain, Sikh/Hindu/Muslim/Buddhist/Christian/Others)
8. Category: SC/ST/OBC/General
9. Monthly Income:

Specific Information

Month	Prices of commodity 'A'	Quantity Purchased for community 'A'	Price of commodity 'B'	Quantity Purchased for Commodity 'B'	Price of Commodity 'C'	Quantity Purchased for commodity 'C'

Technique

After collection of data through structured questionnaire in case of primary data and in case of secondary data teacher should assist the student regarding source and type of data, student should classify and tabulate the data. With the help of the tabulated data student may use software Excel (MS Office) to determine. Price and income elasticity and may depict the results with the help of diagram too.

Data Analysis

On the basis of numerical finding the student should specify the nature of elasticity i.e. elastic, inelastic, unitary etc. and the reason behind this. If data is taken for different groups (income based, community based, age based) than student may analyze the differential based on different above mentioned attribute.

Results and Finding

Conclusion

Think of the larger array of items that you purchase on a regular basis. My guess is that student, like other consumers, are more responsive to changes in price for some items and not so for other items. In absolute terms, price elasticity of demand coefficients range between zero and infinity extending outwardly from unitary elasticity, which is where the coefficient is equal to one. Those extremes carry specific names. At one extreme, your purchases of an item will cease or go to zero quantity when a price increase occurs. Demand is perfectly elastic in this instance. At another extreme, your purchases of an item will remain the same regardless of price. Demand is perfectly inelastic in this instance.

References

Robert C Guell (2007), Issues in Economics, The Mcgraw Hill /Irwin Series in Economics.
 Perkin M (2000), Micro Economics, Addison Wesley C

Practical No- 4.6

Title: Market Demand

Introduction

One cannot have a thriving economy without consumers. Aggregate demand, the total demand for goods and services within a nation's economy, hinges on the attitudes of the buying public (National Council on Economic Education, 2007). High prices, product reliability and industry confidence all play a role in market demand and concurrently supply. In the times of recession, low consumer confidence causes people to reduce their spending and, therefore, market demand and consequently the economy. Conversely, in times of fiscal health, above-average incomes foster higher demand and consequently, prices. Market demand and supply, therefore, are inversely proportional to one another. The difficulty lies in balancing between the two elements; facilitating economic health without risking inflation or recession. The unenviable task usually falls to lawmakers and regulators.

If the price of your favorite brand of coffee was to double, placing it out of reach of your household budget, you might switch brands or stop drinking coffee altogether. Similarly, if other users of your favorite coffee also did as you, the "market demand" for that particular coffee brand would be adversely affected. The classic economic model of market demand focuses on fluctuations in the demand for a product or service based on the perception of price of that product or service. Some of the variables that market demand depends on include: price, household incomes, number of consumers or households demanding a product or service and the availability of cheaper substitutes.

Therefore, market demand analysis is important for financial, production, sales forecasting, pricing and marketing decisions. The classic market demand model is price-driven. The real-world model places equal importance on qualitative factors that drive market demand, such as the persuasive powers of effective advertising and other forms of consumer communications. You can learn about the quantitative and qualitative aspects of market demand using published industry data, low-cost surveys, researching your competitors and through focus groups.

Objective of the Study:

1. To understand the concept of demand.
2. To identify the different factors influencing market demand.

Data Base

Buyer behavior is based on a complex process by which consumers choose, acquire, use, and dispose of goods and services in order to fulfill their needs and desires. To understand why a buyer makes a purchase, it is important to understand his/her needs and motivations. Students may be asked to collect data related demand for different commodities or pair of commodities via milk, petrol, potatoes, tomato, gold etc, preferably the commodities whose prices are fluctuating.

Methodology

To meet the above objectives the students may be given some activities to be solved through hypothetical data or may be asked to collect data through pre-structured questionnaire. After collection of data student may be asked to classify and tabulate data. After that student should be asked to feed the data in the database software and asked to calculate market demand on the basis of income group, social groups, age group and gender group and so on. With hypothetical or actual data students may be asked to represent graphically the case of substitute goods, complementary goods and competitive goods.

Tools

Questionnaire on Market demand

General Information

1. Name of the respondent of the Household
2. Age
3. Sex

4. Monthly income
5. Place of Residence
6. Religion
7. Social categories(SC/ST/OBC/Gen)
8. Demand for the commodity for the products at five different point of price

Different Price at different time	Monthly consumption
A	
B	
C	
D	
E	

Technique: Students may take the help of MS-Excel

Data Analysis: Students may be asked to analyze the data with logical reasoning with the help of table, chart, graph etc.

Conclusion: After this project based learning, the topic of market demand, students learning will be based upon the philosophy of learning by doing principle and may be able to understand the independent factors responsible for market demand.

Practical No- 4.7

Title: Calculate the GDPmp and GDPfc of India for a particular year

Conceptual Framework

India has emerged as the fastest growing major economy in the world as per the Central Statistics Organization (CSO) and International Monetary Fund (IMF) and it is expected to be one of the top three economic powers of the world over the next 10-15 years, backed by its strong democracy and partnerships. India's GDP increased 7.1 per cent in 2016-17 and is expected to reach a growth rate of 7 per cent by September 2018

Gross domestic product (GDP) is the single standard indicator used across the globe to indicate the health of an economy. Policy makers, investors, economists, businesses, bankers, politicians, and even the media keep a close watch on GDP estimates. GDP provides one single number that represents the monetary value of all the finished goods and services produced within a country's borders in a specific period. GDP may be easy to define but it is complex to calculate, and countries across the globe have different methods to arrive at their country's GDP. This practical discusses how India calculates its GDP.

The GDP in India is calculated using two different methods, leading to differing figures that are nonetheless close in range.

The first method is based on economic activity (at factor cost), and the second is based on expenditure (at market prices). Further calculations are made to arrive at nominal GDP (using current market price) and real GDP (inflation-adjusted). Among the four released numbers, the GDP at factor cost is the most commonly followed figure and reported in the media. A sample GDP report that indicates the GDP calculation for all four figures can be accessed [here](#).

The factor cost figure is calculated by collecting data for the net change in value for each sector during a particular time period. The following eight industry sectors are considered in this cost:

1. Agriculture, forestry, and fishing;
2. Mining and quarrying;
3. Manufacturing;
4. Electricity, gas and water supply;
5. Construction;
6. Trade, hotels, transport and communication;
7. Financing, insurance, real estate and business services;
8. Community, social and personal services.

In the current study we are going to calculate GDP at market price and factor cost.

Learning Outcomes / Objectives

After completion of this practical the learner will :

- ✦ Describe the meaning of Gross Domestic Product.
- ✦ Explain the meaning of GDP at Factor Cost and GDP at Market Price.
- ✦ Explain the relation between GDP fc and GDP mp.
- ✦ Elaborate the scrotal contributing to GDP in India.
- ✦ State the process of calculation of GDP.
- ✦ Examine and describe the growth pattern of GDP.

Database (Data Source)

The study is based on the secondary data, which will be collected from the Economic Survey, Department of Economics Affaires, Ministry of Finance, Govt. of India.

<https://data.gov.in>

<https://www.investopedia.com>

<https://www.ibef.org>

Methodology

Collect the following data -

Sales - sector wise - Primary, Secondary and Tertiary sector.

Change in stock - Sector wise, Primary, Secondary and Tertiary.

Export - Sector wise

Intermediate consumption and Purchase - Sector wise

Indirect Taxes - Sector Wise

Subsidy Given - Sector wise

In order to achieve the learning objectives, the data will be taken in to account for a particular year.

Calculate the GDP from the collected data.

Tools and Technique Used

Excel sheet to be used for the calculation of GDPmp and GDPfc

Data Analysis

Use formulae and prepare tables, Graph etc.

Result, Findings and Conclusion

Practical No- 4.8

Title: Composition and Performance of Balance of Payment (BOP) during the last 10 years.

Conceptual Framework

The balance of payments, also known as balance of international payments and abbreviated BoP or BP, of a country is the record of all economic transactions between the residents of the country and the rest of the world in a particular period (over a quarter of a year or more commonly over a year). These transactions are made by individuals, firms and government bodies. Thus, the balance of payment includes all external visible and non-visible transactions of a country. It represents a summation of country's current demand and supply of the claims on foreign currencies and of foreign claims on its currency.

These transactions include payments for the country's exports and imports of goods, services, financial capital, and financial transfers. It is prepared in a single currency, typically the domestic currency for the country concerned. Sources of funds for a nation, such as exports or the receipts of loans and investments, are recorded as positive or surplus items. Uses of funds, such as for imports or to invest in foreign countries, are recorded as negative or deficit items.

When all components of the BOP accounts are included they must sum to zero with no overall surplus or deficit. For example, if a country is importing more than it exports, its trade balance will be in deficit, but the shortfall will have to be counterbalanced in other ways – such as by funds earned from its foreign investments, by running down central bank reserves or by receiving loans from other countries.

While the overall BOP accounts will always balance when all types of payments are included, imbalances are possible on individual elements of the BOP, such as the current account, the capital account excluding the central bank's reserve account, or the sum of the two. Imbalances in the latter sum can result in surplus countries accumulating wealth, while deficit nations become increasingly indebted.

The term balance of payments often refers to this sum: a country's balance of payments is said to be in surplus (equivalently, the balance of payments is positive) by a specific

amount if sources of funds (such as export goods sold and bonds sold) exceed uses of funds (such as paying for imported goods and paying for foreign bonds purchased) by that amount. There is said to be a balance of payments deficit (the balance of payments is said to be negative) if the former are less than the latter. A BOP surplus (or deficit) is accompanied by an accumulation (or de-commutation) of foreign exchange reserves by the central bank.

Under a fixed exchange rate system, the central bank accommodates those flows by buying up any net inflow of funds into the country or by providing foreign currency funds to the foreign exchange market to match any international outflow of funds, thus preventing the funds flows from affecting the exchange rate between the country's currency and other currencies. Then the net change per year in the central bank's foreign exchange reserves is sometimes called the balance of payments surplus or deficit. Alternatives to a fixed exchange rate system include a managed float where some changes of exchange rates are allowed, or at the other extreme a purely floating exchange rate (also known as a purely flexible exchange rate). With a pure float the central bank does not intervene at all to protect or devalue its currency, allowing the rate to be set by the market, and the central bank's foreign exchange reserves do not change, and the balance of payments is always zero.

Learning Outcomes / Objectives

After completion of this practical the learners will :

- ✚ Explain the concept of Balance of payments
- ✚ Describe decomposition of current and capital account of balance of payments
- ✚ Analyse of the causes and correction of disequilibrium of balance of payments
- ✚ Explain the role of balance of trade and balance of payments in the development of macroeconomic policy.
- ✚ Examine the balance of payments current account and capital account for national economy in India.

Database (Data Source)

The study is based on the secondary data. Which will be collected from the Economic Survey, Department of Economics Affairs, Ministry of Finance, Govt. of India.

Methodology

In order to achieve the learning objectives, the data will be taken in to account from last 10 years.

Tools and Technique Used

Excel

Formulae to calculate deficit / surplus in BOP

Deficit in BOP = Total Credit < Total Debit

Surplus in BOP = Total Credit > Total Debit

Data Analysis

Prepare and use tables, Graph and Pie Chart

Result, Findings and Conclusion

Practical No- 4.9

Title: Trend and Performance of Balance of Trade (BOT) in India during last 10 years.

Conceptual Framework

The trade balance subtracts imports from exports. Imports are any goods and services that are made in a foreign country and bought by a country's residents. You may think of imports only as items shipped in from a foreign country. But imports also include souvenirs purchased by residents while traveling abroad. Citizens are importing the items in their suitcases. Services provided while traveling, such as transportation, hotels and meals, are also imports.

It doesn't matter whether the company that makes the good or service is a domestic or foreign company. If it was purchased or made in a foreign country, it's an import. Exports are any goods or services made domestically and sold by a native resident or business to a foreign one. That includes a pair of jeans you mail to a friend overseas. It could also be signage a corporate headquarters transfers to its foreign office. If the foreigner pays for it, then it's an export.

The balance of trade is the most significant component of the current account. That's what measures a country's net income earned on international account. It also includes all payments across borders. The trade balance is the easiest to measure. That's because all goods and many services must pass through the customs office. The current account is itself part of a country's balance of payments, which measures all international transactions.

Learning Outcomes / Objectives

After completion of this practical the learner will :

- ✦ Describe the concept of Balance of Trade
- ✦ Identify and state the major part of Current Account of balance of payments
- ✦ Analysis of the causes and correction of disequilibrium of Balance of Trade.
- ✦ Explain the role of Balance of Trade in the development of macroeconomic policy.

↓ Examine the Balance of Trade account for national economy in India.

Database (Data Source)

The study is based on the secondary data. Which will be collected from the Economic Survey, Department of Economics Affairs, Ministry of Finance, Govt. of India.

Methodology

In order to achieve the learning objectives, the data will be taken in to account from last 10 years.

Tools and Technique Used

Excel

Formulae to calculate deficit / surplus in BOT

Deficit in BOT = Total export of Goods < Total Imports of Goods

Deficit in BOT = Total export of Goods > Total Imports of Goods

Data Analysis

Prepare and use tables, Graph.

Result, Findings and Conclusion

Practical No- 4.10

Title: A Study on the Budgetary Deficits, Revenue Deficits, Fiscal deficits and Primary deficits.

Conceptual Framework

Budget is defined as an annual statement of the estimated receipts and expenditure of the government. Budgets may be balanced, surplus or deficit. During balanced budget government estimated receipts are equal to government estimated receipts. When government receipts is more than government expenditure, it will lead to surplus budget whereas when government receipts is less than government expenditure , it will lead to deficit budget .The deficit budget is adopted by the government to meet the growing needs of the people. It is usually suggested during recession whereas surplus budget is adopted during inflationary situation.

Different types of deficits that occur in an economy are – Revenue deficit, Fiscal deficit and Primary deficit.

Revenue deficit = excess of total revenue expenditure over total receipts

Fiscal deficit = excess of total expenditure over total receipts excluding borrowings

Primary deficit = Fiscal deficit – Interest payments

Learning Outcomes / Objectives

After completion of this practical the learner will :

- Explain the concepts of Budgetary deficits
- Apply the economic survey data for calculation of different deficits
- Compare the deficits of last 5 yrs
- Study and describe the implications of deficits on economy

Database (Data Source)

The study is based on the secondary data. Which will be collected from the Economic Survey, Department of Economics Affaires, Ministry of Finance, Govt. of India.

Methodology

In order to achieve the learning objectives, the data will be taken from economic survey of last 5yrs, which is available on the website of Ministry of finance, government of India.

Tools and Technique Used

Excel file - to show the schedule of data regarding Total receipts and Total expenditure and their components during last 5years

Graphical presentation of schedule showing the financial performance of government during last 5 yrs.

Data Analysis

The data interpretation involve the following points

- The pattern of revenue deficits, fiscal deficits and Primary deficits during the last 5 years
- The increase/ decrease in the deficits

Result, Findings and Conclusion

Practical No-4.11

Title: Calculate the NDPmp and NDPfc for a particular year

Conceptual Framework

Net National Product (NNP) refers to gross national product (GNP) minus the consumption of fixed assets due to productivity actively, i.e. the total market value of all final goods and services produced by the factors of production of a country or other polity during a given time period, minus depreciation. Similarly, net domestic product (NDP) corresponds to gross domestic product (GDP) minus depreciation. Depreciation describes the devaluation of fixed capital through wear and tear associated with its use in productive activities.

In national accounting, net national product (NNP) and net domestic product (NDP) are given by the two following formulas.

$$\text{NDPmp} = \text{GDPmp} - \text{Depreciation}$$

$$\text{NDPfc} = \text{GDPfc} - \text{Depreciation}$$

$$\text{NDPmp} = \text{NDPfc} + \text{NIT}(\text{Indirect Tax} - \text{Subsidy})$$

$$\text{NDPfc} = \text{NDPmp} - \text{NIT}(\text{Indirect Tax} - \text{Subsidy})$$

Although the Net National Product is a key identity in national accounting, its use in economics research is generally superseded by the use of the gross domestic or national product as a measure of national income, a preference which has been historically a contentious topic (see e.g. Boulding (1948) and Burk (1948)). Nonetheless, the net national product has been the subject of research on its role as a dynamic welfare indicator as well as a means of reconciling forward and backward views on capital wherein $\text{NNP}(t)$ corresponds to the interest on accumulated capital. Furthermore, the net national product has featured prominently as a measure in environmental economics such as within models accounting for the depletion of natural and environmental resources or as an indicator of sustainability.

In the current study we are going to calculate Net Domestic Product at market price and factor cost.

Learning Outcomes / Objectives

After completion of this practical the learner will :

- ↓ Describe the meaning of NDP at Market Price and NDP at Factor Cost.
- ↓ Explain the relation between NDP mp and NDPfc.
- ↓ Describe the sectoral contribution to NDP in India.
- ↓ Elaborate the process of calculation of NDP.

Database (Data Source)

The study is based on the secondary data, which will be collected from the Economic Survey, Department of Economics Affairs, Ministry of Finance, Govt. of India.

<https://data.gov.in>

<https://www.investopedia.com>

<https://www.ibef.org>

Methodology

Collect the following data - Sales - sector wise - Primary, Secondary and Tertiary sector.

Change in stock - Sector wise, Primary, Secondary and Tertiary.

Export - Sector wise

Intermediate consumption and Purchase - Sector wise

Indirect Taxes - Sector Wise

Subsidy Given - Sector wise

Depreciation - Sector wise

In order to achieve the learning objectives, the data will be taken in to account for a particular year. Calculate the NDPmp and NDPfc from the collected data.

Tools and Technique Used: Excel sheet to be used for the calculation of NDPmp and NDPfc

Data Analysis: Use formulae and prepare tables, Graph etc.

Result, Findings and Conclusion

Practical No- 4.12

Title: Components of Money Supply

CONCEPTUAL FRAMEWORK

Growth of money supply is an important factor not only for acceleration of the process of economic development but also for the achievement of price stability in the economy. There must be controlled expansion of money supply if the objective of development with stability is to be achieved. A healthy growth of an economy requires that there should be neither inflation nor deflation. Inflation is the greatest headache of a developing economy. Increase in money supply affects vitally the rate of economic growth. In fact, it is now regarded as a legitimate instrument of economic growth. Kept within proper limits it can accelerate economic growth but exceeding of the limits will retard it. Thus, management of money supply is essential in the interest of steady economic growth. Money supply means the total amount of money in an economy. The effective money supply consists mostly of currency and demand deposits. According to the standard concept of money supply, it is composed of the following two elements:

1. Currency with the public,
2. Demand deposits with the public.

Money Supply M1 or Narrow Money:

This is the narrow measure of money supply and is composed of the following items:

$$M1 = C + DD + OD$$

Where, C = Currency with the public

DD = Demand deposits with the public in the commercial and cooperative banks.

OD = Other deposits held by the public with Reserve Bank of India.

Currency with the public (C) in the above measure of money supply consists of the following:

- (i) Notes in circulation.

(ii) Circulation of rupee coins as well as small coins

(iii) Cash reserves on hand with all banks.

However, these other deposits of Reserve Bank of India include the following items:

(i) Deposits of Institutions such as UTI, IDBI, IFCI, NABARD etc.

(ii) Demand deposits of foreign Central Banks and Foreign Governments.

(iii) Demand deposits of IMF and World Bank.

Money Supply M2:

M2 is a broader concept of money supply in India than M1. In addition to the three items of M1, the concept of money supply M₂ includes savings deposits with the post office savings banks. Thus,

$M_2 = M_1 + \text{Savings deposits with the post office savings banks.}$

Money Supply M3 or Broad Money:

M3 is a broad concept of money supply. In addition to the items of money supply included in measure M1, in money supply M₃ time deposits with the banks are also included. Thus

$M_3 = M_1 + \text{Time Deposits with the banks.}$

Money Supply M4:

The measure M4 of money supply includes not only all the items of M3 described above but also the total deposits with the post office savings organization. However, this excludes contributions made by the public to the national saving certificates. Thus,

$M_4 = M_3 + \text{Total Deposits with Post Office Savings Organization.}$

LEARNING OUTCOMES / OBJECTIVES

After completion of this practical the learner will :

- Explain the concept of money supply in the economy
- Describe the various components of money supply.

- Calculate various components of money supply using the data collected by the RBI
- Make comparative analysis of the data with previous and current years.

DATABASE

The data will be collected from secondary source

METHODOLOGY

The data of money stock can be collected from www.rbi.gov.in and from RBI bulletin

https://m.rbi.org.in/Scripts/BS_ViewBulletin.aspx

TOOLS AND TECHNIQUES

Excel file - to show the tabular presentation of various components of money supply for different years

Graphs to highlight the comparative analysis of the stock of money supply in the economy for different years

RESULTS AND FINDINGS

Practical No- 4. 13

Titles:

1. Compare the Movement / fluctuations in Foreign Exchange for the last one month in comparison to Dollar (USA) / Yen (Japan)/ Euro (Euro Zone)/ Pound (U.K.)/ Canadian Dollar (Canada)/ Austrian Dollar (Australia)/ Franc (Switzerland).
2. Compare the Movement / fluctuations in Foreign Exchange for the monthly average of last five years in terms of Dollar (USA) / Yen (Japan)/ Euro (Euro Zone)/ Pound (U.K.)/ Canadian Dollar (Canada)/ Austrian Dollar (Australia)/ Franc (Switzerland).
3. Compare the Movement / fluctuations in Foreign Exchange for yearly average of last ten years in terms of Dollar (USA) / Yen (Japan)/ Euro (Euro Zone)/ Pound (U.K.)/ Canadian Dollar (Canada)/ Austrian Dollar (Australia)/ Franc (Switzerland).

Conceptual Framework

Foreign exchange is the exchange of one currency for another or the conversion of one currency into another currency. Foreign exchange also refers to the global market where currencies are traded virtually around the clock. The largest trading centers are London, New York, Singapore and Tokyo. The term foreign exchange is usually abbreviated as "forex". Foreign exchange transactions encompass everything from the conversion of currencies by a traveler at an airport kiosk to billion-dollar payments made by corporations, financial institutions and governments. Transactions range from imports and exports to speculative positions with no underlying goods or services. Increasing globalization has led to a massive increase in the number of foreign exchange transactions in recent decades. What is traded on the foreign exchange market? The simple answer to this question is currencies. Although currencies from every country make up the foreign exchange market, most volume is concentrated in a small number of currencies. These currencies that are traded most often are called major currencies. They are: USD: United States / Dollar, EUR: Euro Zone / Euro, JPY: Japan / Yen, GBP: United Kingdom / Pound, CAD: Canada / Dollar, CHF: Switzerland / Franc, AUD: Australia / Dollar.

In this study the changes in the exchange rate of Indian Rupee in terms of other major currencies will be examined.

Learning Outcomes / Objectives

After completion of this practical the learner will :

- ↓ State the meaning of Exchange Rate.
- ↓ Name the major currencies in the world which are most often traded.
- ↓ Describe the concept of Foreign Exchange Market.
- ↓ Explain the causes of depreciation and appreciation of the currency.

Database (Data Source)

The study is based on the secondary data, which will be collected from the following Sources -

Website of Reserve Bank of India - www.rbi.gov.in

<http://www.x-rates.com>

Methodology

1. In order to achieve the learning objectives, the data will be taken in to account for one month.
2. In order to achieve the learning objectives, the data will be taken in to account for monthly average of last five years in terms of Dollar (USA) / Yen (Japan)/ Euro (Euro Zone)/ Pound (U.K.)/ Canadian Dollar (Canada)/ Austrian Dollar (Australia)/ Franc (Switzerland).
3. In order to achieve the learning objectives, the data will be taken in to account for yearly average of last 10 years in terms of Dollar (USA) / Yen (Japan)/ Euro (Euro Zone)/ Pound (U.K.)/ Canadian Dollar (Canada)/ Austrian Dollar (Australia)/ Franc (Switzerland).

Tools and Technique Used

Excel

Data Analysis

Prepare and use tables, Graph

Result, Findings and Conclusion

Practical No-4.14

Title: A Study on the process of Credit Creation by Commercial bank.

Conceptual Framework

RBI issues currency notes and coins while commercial banks increase the supply of money by credit creation. Money issued by central banks is called base money, or reserves, while money issued by commercial banks or other intermediaries is termed broad money. Total deposits of a bank are of two types - (1) Primary deposits (2) Secondary deposits. Money creation by commercial banks is determined by two factors namely (1) Primary deposits (initial deposit) (2) legal reserve ratio. Broadly, when a bank receives cash deposits from the public, it keeps a fraction of deposits as cash reserves (LRR) and uses the remaining amount for giving loans. In this process banks are able to create money through secondary deposits multiple times the initial deposits

Learning Outcomes / Objectives

After completion of this practical the learner will :

- Detail the meaning of credit creation.
- Make the distinction between primary deposits and secondary deposits.
- Describe the process of credit creation by commercial banks.
- Explain the concept of Legal Reserve Ratio and its components that is SLR and CRR.

Database (Data Source): Data will be collected from Primary sources as well as secondary sources.

Methodology

First select any bank near to your locality. Collect the data regarding Initial Deposits.

The L.R.R. fixed by the Central Bank can be collected from the RBI bulletin and www.rbi.gov.in

Tools and Technique Used: Excel file showing schedule of the working of money multiplier.

Data Analysis: Prepare and use tables

Result, Findings and Conclusion

Practical No-4.15

Title: Impact of Advertisement on the Consumers Demand

(Non-Price Competition under Monopolistic Market)

Conceptual Framework

Society is composed of cross sections of people, are different in status, by region, by occupation, by education, by caste and so on. Their social cultures and way of life also varies. Standard of living of a worker, a clerk and an executive differs widely.

In the present market we find keen competition among the products. Every manufacturer is trying to reach the consumers with different motivating schemes to promote sales a number of offers are declared in the advertisement. Manufacturer spent a huge amount on print and electronic media. If we study from the viewer's point of view, we find that most readers / viewers skip over the advertisement without intensively viewing and reading them. Reading / viewing an advertisement with its full contents, is an art. There are various sales promotion schemes and strategies to compliment the firm's personal shows and mass selling efforts. In this study try to find out the impact of media advertisement on consumers purchase.

Learning Objectives / Outcomes

After completion of this practical the learner will :

- ↓ Explain regarding media advertising.
- ↓ Describe consumer's behaviour on of commodities of various sections.
- ↓ State the impact of advertisement on the consumers.

Database (Data Source): Data will be collected from the primary sources.

Methodology: Sample Design - This may be selected on the basis of the simple random sampling Minimum 30 People. Data collected from households.

Tools and Technique Used: Questionnaire and Excel

Data Analysis: Prepare and use tables, Graph and Pie Chart

Result, Findings and Conclusion

Practical No-4.16

Title: A comparative analysis of buffer stock of different regions and the sales of these stocks in various welfare programs.

CONCEPTUAL FRAMEWORK

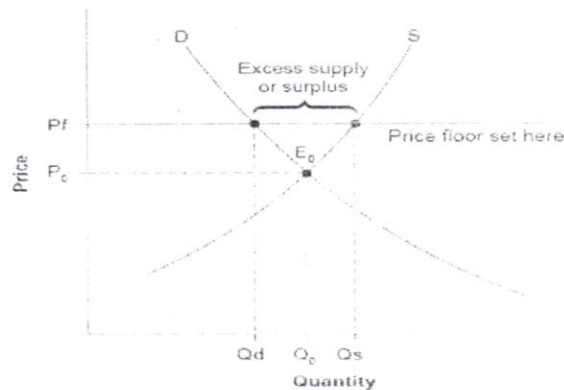
Price floor is a situation when the price charged is more than or less than the equilibrium price determined by market forces of demand and supply

When a price ceiling is set below the equilibrium price, quantity demanded will exceed quantity supplied, and excess demand or shortages will result. Price floors prevent a price from falling below a certain level. When a price floor is set above the equilibrium price, quantity supplied will exceed quantity demanded, and excess supply or surpluses will result. When government laws regulate prices instead of letting market forces determine prices, it is known as **price control**.

Price floors are sometimes called price supports because they support a price by preventing it from falling below a certain level. Around the world, many countries have passed laws to create agricultural price supports. Farm prices, and thus farm incomes, fluctuate—sometimes widely. So even if, on average, farm incomes are adequate, some years they can be quite low. The purpose of price supports is to prevent these swings.

The most common way price supports work is that the government enters the market and buys up the product, adding to demand to keep prices higher than they otherwise would be.

We can take a look at the demand and supply model below to understand better the effects of a government program that creates a price above the equilibrium.



The graph shows an example of a price floor which results in a surplus. The intersection of demand(D) and supply(S) would be at the equilibrium point E_0 . However, a price floor set at P_f holds the price above E_0 and prevents it from falling. The result of the price floor is that the quantity supplied, Q_s , exceeds the quantity demanded, Q_d . There is excess supply, also called a surplus.

LEARNING OUTCOMES/ OBJECTIVES

After completion of this practical the learner will :

- Explain the meaning of price floor
- Gather information regarding the MSP of 4 agricultural items and compare it with the market price of the same
- Describe the comparative data of FCI related to region wise buffer stock and region wise sales undertaken by FCI on various government schemes

DATA BASE

The data will be collected from the primary source and secondary source.

METHODOLOGY

Primary data regarding collection of market price of various agricultural commodities

Secondary data on MSP. Secondary data from FCI related to stock of food grains of different states and sales of FCI for various welfare programmes

<http://fci.gov.in/sales.php?view=207>

TOOLS AND TECHNIQUES-

Excel file to show the market price collected for different agricultural commodities and their MSP

Graphs to depict the excess supply due to price floor

Bar graph to represent the contributions of different states in FCI as buffer stock

Pie chart to show the sales/ distribution of FCI for various welfare programmes in different states

RESULTS AND FINDINGS

Practical No-4.17

Title: Relationship between Price and Supply of the Commodity

Conceptual Framework

We have studied about the meaning of demand for a commodity, determinants of demand and the law of demand. But the buyers will be able to buy a commodity only when it is available in the market. So the question arises, who supplies the commodities in the market? A commodity must be produced first, stored properly and transported to the market in order to be available for the buyers. Have you ever visited an agricultural farm? Since farmers produce food grains, fruits and vegetables etc. in their farms, they are the producers of these commodities. Similarly consumer goods such as garments, soaps, tooth paste, tooth brush, shoes, pens, etc are manufactured in the factories. Producers of such items are called manufacturers. Buyers buy these items from the sellers in the market. The original producer and the seller in the market could be the same person or different persons. If they are different, it simply means that the sellers in the market have procured these items from the original producers to sell them to the buyers in the market. So the farmers, manufactures and sellers supply the commodities in the market. They are all called producers. The production unit in which production of a commodity takes place is called a firm. Thus we can say that firms supply the commodities.

Learning Outcomes / Objectives

After completion of this practical the learner will :

- ✦ Describe the meaning of stock and supply;
- ✦ Explain the meaning of individual supply and market supply of a commodity;
- ✦ Examine the relation between price of a commodity and its quantity supplied;
- ✦ Explain the determinants or factors affecting supply of a commodity;
- ✦ Explain how to construct an individual supply curve and know its shape.
- ✦ Examine the relationship between price of the commodity and supply of the commodity.

Database (Data Source): Data will be collected from the primary sources.

Methodology

Sample Design - minimum 30 People

Data collected from Manufacturer, Vegetable Seller, and Retailers etc.

Tools and Technique Used

Questionnaire and Excel

Data Analysis

Prepare and use tables, Graph and Pie Chart

Result, Findings and Conclusion

CHAPTER-V

PROJECT-BASED LEARNING IN ECONOMICS

It is well accepted fact that teaching-learning process is highly effective when it is learner centred. It means that the student is motivated to participate in this process so that the severity of the specified subject can be faced in all the aspects. Student involvement can be achieved through Project-Work. Economics is studied as a component of social studies and as an independent subject at senior secondary level. There is a varied scope of adopting innovative methods - induction of practice activities or project work.

The National Policy on Education (1986) and Programme of Action (1992) duly recognize the activity based learning approach under which the learner involves himself effectively by way of interactive process through observations, problem solving, gaining self-experience by collection of data, analyzing and then drawing conclusions. In this manner the learner gains insight into the validity and reliability of statement, laws and various principles and their limitations in particular subject area. In Economics work and market places, resource centres, etc. are the Lab, for the learner. Individual and group projects and activity based teaching learning instructional materials will do a long way in developing a constructive and positive approach.

Project work or Activity based teaching-learning process is a method under which the learner learns the subject through practical assignments. It is based upon:

1. Observations
2. Collection of data from various resource centres.
3. Surveys
4. Interaction with the community

The learner organizes his subject and then prepares a report. This report consists of the operational aspect of the concepts, terms, laws, generalization theory and so on. In Physical Sciences and Life Sciences there are labs, which provide opportunities for practical, whereas in Social Sciences and Economics the learner has to undertake the help

of the library and project-sites for field work. This field work is an active process and is participatory in nature and the teacher performs the role of a facilitator.

Why Project Based Learning

The supporting factors for activity/project based learning approach are discussed below.

(a) **Learning by Doing**

The project based learning approach is based upon the philosophy of 'Learning by doing' principle. There is an effective understanding of the concepts, terms, principles, generalizations etc. if the students are tested under ground realities. These ground realities incorporate collection of factual information, assumptions and processes.

(b) **Scope**

In commerce and Business studies the world of work is enormous field work, market places, households, economic and financial institutions, industrial organization etc. are places for experimentation.

(c) **Empirical Studies**

Knowledge provides rationality. Rationality depends upon logic, reasoning and evidences of hard facts based on quantitative and qualitative data. These facilities in learning concepts and principles of the subjects Economic, Commerce and Management derive their strength from the realities of the social world.

(d) **Scope of Interaction**

While going for the project, the student interacts and discusses with the community, which gives him more exposure.

(e) **Democratic Way of Learning**

Co-operation, interaction and initiation are major components in a democratic set-up. The teacher facilitates and encourages the students in achieving the objective.

(f) Skill Development

Project based learning provides distinct advantages to the learner as it facilitates in developing various types of skills.

(i) Technical Skills

It involves the ability to apply specific methods, procedures and techniques. The student acquires the skills of collection and tabulation of data, drawing, schedules, diagrams, maps, charts, tables, graphs etc. from the given data.

(ii) Interpersonal Skills

In involves working the people. It includes the abilities to lead, conduct group meetings and work with orders. The student gets training of these skills when he visits the work places and interacts with the functionaries at these work places.

(iii) Communication Skills

It involves working with the people. It includes the abilities to lead, conduct group meetings and work with others. The student gets training of these skills when he visits the work places and interacts with the functionaries at these work places.

(g) Value Inculcation

Values like initiative, motivation for learning, interest, aptitude, leadership, democratic-attitude, co-operation, sense of involvement and commitment are inculcated through this approach.

Expected Learning Competencies

I. Cognitive Domain

A. Knowledge

- (i) Recognizes facts
- (ii) Reads information from various forms of representation of data i.e. charts, tables, graphs, etc.
- (iii) Recalls facts, concepts, terms, principles, trends etc.

B. Understanding

- (i) Discriminates
- (ii) Classifies
- (iii) Compares and Contrasts
- (iv) Identifies Relationships
- (v) Detects the points of emphasis and the trend of arguments
- (vi) Cites illustrations
- (vii) Corrects the errors and fallacies

C. Application

- (i) Applies Statistical Techniques

D. Analysis

- (i) Classifies or Elucidates
- (ii) Relates knowledge relevant to the situation
- (iii) Interprets data presented in different forms

E. Synthesis

- (i) Establishes relationship between different variables of enquiry
- (ii) Draws inferences and makes generalization
- (iii) Gives reasons and advance arguments.

F. Evaluation

- (i) Evaluates the assumptions underlying economic laws, concepts etc. from the given data

II. Psychomotor Domain

A. Skills

- (i) Draws charts, tables, diagrams, graphs etc. from the given data
- (ii) Converts data from one form of presentation to another

III. Affective Domain

- (i) Develops interest in the subject
- (ii) Studying problems and issues
- (iii) Discusses these problems, policies in living environment
- (iv) Participates in the project work
- (v) Discards false notions and beliefs

(vi) Observes the process of change brought out by such problems and issues and bearing of policies on them

(vii) Develops a desirable attitude and values through:

(a) Tolerance

(b) Sense of Responsibility

(c) Broad outlook,

(d) Clear perception and

(e) Optimism

Project No-5.1

Title: To Acquire Knowledge of different goods available in the Market

The product of an organisation is an output which is usually offered for sale some products are tangible in case of manufacturing units and there are intangible in case of services sectors. Every product has certain characteristics. Explicit product characteristics are seller oriented as they define the parameters. When the product is considered from the point of view of consumers it is termed as implicit product characteristics. Every person sees the product in different ways and his perception is not the same in case of another person.

Objectives

After completion of this practical the learner will :

1. Provide knowledge regarding various brands of different product.
2. Give comparative ideas of various brands of a particular product.

Questionnaire

Section-A

Visit some retail stores in your area, identify various items sold there. Write any five brands names before the products given below as illustrated far no.1

e.g

1. Tea: (i) Taj Mahal (ii) Red Label (iii) Goodrike (iv) Double Diamond (v) Sterling

2. Coffee : (i) (ii) (iii) (iv)
(v)

3. Toothpaste : (i) (ii) (iii) (iv)
(v)

4. Talcum Powder : (i) (ii) (iii) (iv)
(v)

Project No-5.1

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2. Coffee : (i) (ii) (iii) (iv)
(v)

3. Toothpaste : (i) (ii) (iii) (iv)
(v)

4. Talcum Powder : (i) (ii) (iii) (iv)
(v)

(ii) Comparative Profile of Card of Coffee

S.N	Brand Product Features	I Brand	II Brand	III Brand	IV Brand	V Brand
1.	Name of the Product					
2.	Quantity / Weight					
3.	Size/Shape					
4.	Price(M.R.P)					
5.	Formulation					
6.	Colour Used					
7.	Manufactured					
8.	Marketed By					
9.	Batch No.					
10.	Date of Manufacture					
11.	Packed on					
12.	Expiry date					
13.	Mode of Packing					
14.	Precautions					

(iii) Comparative Profile of Card of Toothpaste

S.N	Brand Product Features	I Brand	II Brand	III Brand	IV Brand	V Brand
1.	Name of the Product					
2.	Quantity / Weight					
3.	Size/Shape					
4.	Price(M.R.P)					
5.	Formulation					
6.	Colour Used					
7.	Manufactured					
8.	Marketed By					
9.	Batch No.					
10.	Date of Manufacture					
11.	Packed on					
12.	Expiry date					
13.	Mode of Packing					
14.	Precautions					

5. Bathing Soap : (i) (ii) (iii) (iv)
(v)
6. Detergent Powder : (i) (ii) (iii) (v)
(v)

Section-B

Prepare a Comparative Profile Card of the products given in the Section-A

(i) Comparative Profile of Card of Tea

S.N	Brand Product Features	I Brand	II Brand	III Brand	IV Brand	V Brand
1.	Name of the Product					
2.	Quantity / Weight					
3.	Size/Shape					
4.	Price(M.R.P)					
5.	Formulation					
6.	Colour Used					
7.	Manufactured					
8.	Marketed By					
9.	Batch No.					
10.	Date of Manufacture					
11.	Packed on					
12.	Expiry date					
13.	Mode of Packing					
14.	Precautions					

(vi) Comparative Profile of Card of Detergent Powder

S.N	Brand Product Features	I Brand	II Brand	III Brand	IV Brand	V Brand
1.	Name of the Product					
2.	Quantity / Weight					
3.	Size/Shape					
4.	Price(M.R.P)					
5.	Formulation					
6.	Colour Used					
7.	Manufactured					
8.	Marketed By					
9.	Batch No.					
10.	Date of Manufacture					
11.	Packed on					
12.	Expiry date					
13.	Mode of Packing					
14.	Precautions					

(iv) Comparative Profile of Card of Talcum Powder

S.N	Brand Product Features	I Brand	II Brand	III Brand	IV Brand	V Brand
1.	Name of the Product					
2.	Quantity / Weight					
3.	Size/Shape					
4.	Price(M.R.P)					
5.	Formulation					
6.	Colour Used					
7.	Manufactured					
8.	Marketed By					
9.	Batch No.					
10.	Date of Manufacture					
11.	Packed on					
12.	Expiry date					
13.	Mode of Packing					
14.	Precautions					

(v) Comparative Profile of Card of Bathing Soap

S.N	Brand Product Features	I Brand	II Brand	III Brand	IV Brand	V Brand
1.	Name of the Product					
2.	Quantity / Weight					
3.	Size/Shape					
4.	Price(M.R.P)					
5.	Formulation					
6.	Colour Used					
7.	Manufactured					
8.	Marketed By					
9.	Batch No.					
10.	Date of Manufacture					
11.	Packed on					
12.	Expiry date					
13.	Mode of Packing					
14.	Precautions					

Questionnaire

(Impact of T.V Commercials on the Buying Behaviour of Consumer Goods:
Detergents)

(Part-A)

General Information

Fill the questionnaire correctly. Please tick mark (√) wherever necessary

1. Name of the Respondent: -----
(IN BLOCK LETTER) -----
2. Address -----

3. Age -----
4. Marital status: (i) Married ()
(ii) Unmarried ()
(iii) Widow ()
(iv) Divorced ()
(v) Separated ()
5. Rural/Urban :-----
6. Religion :-----
7. Family Background :

S.N	Name	Relationship	Education	Age	Veg/ Non- veg	Occupation	Annual Income
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							

8. Name the T.V set of your own? -----
9. What is the size ? (i) Portable :-----

Project No-5.2

Title: Impact of Media on Buying Behaviour

Television is one of the most popular and effective media of advertising. Television makes full use of sight sound and motion and thereby maximises impact on audience. Many big as well as small business houses have been efficacious in influencing the potential buyers for their products.

The frequent exposure of T.V advertisement creates a desire in the viewer to purchase the product. This medium expedites the decision making process of the potential brands of different products. The T.V advertisement provides a basis to the consumers to compare the brands and then go for buying decision.

Objectives

After completion of this practical the learner will :

1. Describe the actions and reactions of the viewers concerning the different brands of a product
2. State competitive features of each brand and will be able to transpire the mode, model and message involved in the exposure of the brand product.
3. Apply and associate the views of respondents with their own views as a consumer class.

Note: To conduction of survey the students will have to visualise themselves the T.V commercial on detergent soaps and powers and then will have to enter the field to conduct the survey. This will facilitate in the evaluation of the responses.

- (c) Liquid : (iv) -----
4. Message of which brand do you think is appealing, convincing and realistic?
- (a) Powder :-----
- (b) Cake :-----
- (c) Liquid :-----
5. Are you motivated by T.V commercials to purchase any brand? Yes/No
6. If Yes, name the brands
- (a) Powder :-----
- (b) Cake :-----
- (c) Liquid :-----
7. If No state any three reasons:
- (a) -----

- (b) -----

- (c) -----

8. Have you ever recommended the brand that you use to your brand or neighbour? Yes/No
9. Does your experience with the product conform to the T.V advertisement? Yes/No
10. Certain product features are projected besides the model on T.V advertisements.
- 10.1 State any two product features of the brand that you prefer:
- (a) Power (i) -----
(ii) -----
- (b) Cake (i) -----
(ii) -----
- (d) Liquid (i) -----
(ii) -----
- 10.2 State any sales promotional scheme regarding detergents which you have observed on T.V commercials?
- (i) Powder :-----
- (ii) Cake :-----

- (ii) 51 cms :-----
- (iii) Largest Size:-----
- (iv) Any other:-----
10. Is it Colour or Black and white? :-----
11. Do you watch T.V commercials? : Yes/No
12. What is the frequency of your viewing the advertisements?
- (a) Rarely
- (b) Sometimes
- (c) No definite period
- (d) Quite often
- (e) Always
13. Do you view the T.V commercials at specified periods? Yes/No
14. If, yes, then specify the periods :-----
-
-
-

Part-B

(Information about Detergent Advertisement)

1. What type of detergent do you use? Give in order of preference regarding Powder/Cake/Liquid
- a. -----
- b. -----
- c. -----
2. Which brand do you normally use?
- (a) Power :-----
- (b) Cake :-----
- (c) Liquid :-----
3. Which T.V exposure of advertisement on detergents do you like? State any three according to your preference.
- (a) Power : (i) -----
- : (ii) -----
- : (iii) -----
- (b) Cake : (i) -----
- : (ii) -----
- : (iii) -----

Project No-5.3

Title: CONSUMERS PREFERENCE ABOUT TOOTHPASTE

OBJECTIVES OF THE PROJECT

After completion of this practical the learner will :

- (1) Describe the features which toothpaste must possess for greater liking of the customer.
- (2) Explain the weight of toothpaste generally preferred by the customers?
- (3) Give an idea about the colour, taste, smell etc. generally liked by customers.
- (4) State about the brand name as liked by general consumers.

METHODOLOGY AND DATA SOURCES

To study this, 100 families of how are taken through random sampling. A questionnaire has prepared and bounded over to them to find the answers of the basis of Quantitative classification. The answers are converted to different type of statistical series.

After classification the data is tabulated, Presented in the form of diagram, like Bar Diagram, Pie Diagram, Time series. The result will be analyzed and interpretation will be done.

COLLECTION OF DATA (Through Questionnaire)

(Total Viewers = 100)

Sample Questionnaire

Consumers preference of Toothpaste

Note - please put tick mark (√) in the relevant box of each question. The information furnished by you will be kept confidential and will be use only for business purposes.

SECTION - A Profile of Respondent

Name : _____

Address : _____

Age : _____

(iii) Liquid :-----

10.3 Has the model features in the detergent advertisement that you prefer impressed you? Yes/No

10.4 If Yes, why? :-----

If No, Why? :-----

11. What is your total impression about T.V commercials for detergents? Are they: (Please tick mark)

- (i) Realistic ()
- (ii) Semi-Realistic ()
- (iii) Superfluous ()
- (iv) Exaggerated ()
- (v) Fallacious ()

Date :

Place :

(Signature of the Respondent)

Do you Complain to the shopkeeper, in case of dissatisfaction has your complaint be timely attended?

Yes/No

Is the advertisement of the product persuasive?

Yes/No

Any Suggestions _____

Sex : Male Female

Phone : Landline _____ Mobile _____

Educational Qualification :

Undergraduate degree Graduate Post Graduate Professional degree

Number of Member in Family:

1-3 4-6 More than 6

Occupation :

Service Manufacturing Trade Other

Monthly Economic :

Less than 20000 20000-40000 40000-50000 More than 60000

SECTION B - CONSUMERS PREFERENCE OF NEWSCHANNEL

What do you use to clean your teeth?

Toothpaste Toothpowder Any other

Which brand of toothpaste do you use?

Aquafresh Cibaca Close-up Colgate Anchor
 Babool Forhanse Oral B Pepsodent Any other

The price paid for each 100gm pack of the toothpaste?

How did you come to know about the product?

Advertisement Television News paper Magazine
Cinema
 Sales Representative Exhibits Stall Radio

Do you find the product costly? Yes/No

Do you examine the date of manufacturing and expiry of the product? Yes/No

Do you check the standardization mark like ISI? Yes/No

Do you check the ingredients used Yes/No

Do Are you satisfied with the quality of the product? Yes/No

Viewer's preference of Channel

Note - please put tick mark (✓) in the relevant box of each question. The information furnished by you will be kept confidential and will be use only for business purposes.

SECTION - A Profile of Respondent

Name : _____
Address : _____
Age : _____
Sex : Male Female
Phone : Landline _____ Mobile _____

Educational Qualification :

Undergraduate degree Graduate Post Graduate Professional

Number of Member in Family:

1-3 4-6 More than 6

Occupation :

Service Manufacturing Trade Other

Monthly Economic :

Less than 20000 20000-40000 40000-50000 More than 60000

SECTION B - VIEWERS PREFERENCE OF NEWS CHANNEL

Which language of News channel you seen?

English Hindi

How many news channel do you seen daily?

1 2 3 4 5

Which news channel do you prefer?

Aaj Tak NDTV India TV Star News Others

How much time you generally spend on seeing news channel?

_____ 84 _____

Project No-5.4

Title: Viewers Awareness about New Channels

Introduction:

Now a day there is the improvement in the income, literacy and standard of living of the people. The role of media in the present day cannot be disputed. Within minutes it transmits happenings around the globe to the viewer sitting at home. Need of the hour is to assess which news channel is mostly watched by viewers. The no. of Channels broadcasting news has increased tremendously and it is essential to find out the quantum of time spent to watch news and the quality of news appreciated by viewers.

OBJECTIVES OF THE PROJECT

After completion of this practical the learner will :

- (1) Find out and state average number of news channels watched by viewers on regular basis.
- (2) Describe the best and most popular news channel.
- (3) Determine and tell the kind of news, which attract the viewers the most?
- (4) Describe the time spent by viewers on watching news channels.

METHODOLOGY AND DATA SOURCES

To study this, 200 families of a district are to be taken through restricted random sampling (These people have TV and have the facility to watch news channels). A questionnaire will be prepared and administered over them to find the answers on the basis of Quantitative classification. The answers are converted to different type of statistical series.

After classification, the data is tabulated, Presented in the form of diagram, like Bar Diagram, Pie Diagram, Time series. The result will be analyzed and interpretation will be done.

COLLECTION OF DATA (Through Questionnaire)

(Total Viewers = 200)

Sample Questionnaire

Project No-5.5

Title: IMPACT OF LAZINESS ON STUDENT

Hypothesis: Due to laziness students may not complete assignment and lagging behind in study. Sometimes they are not taking breakfast, proper dress etc. Which resulted in bad health and ultimately affects desire to study and capacity to study.

COLLECTION OF DATA:

QUESTIONNAIRE-

A. PERSONAL INFORMATION:

1. Name of the student :
2. Address :
3. Age in years :
4. Class :
5. Sex :
6. No. of members in family :
7. Income of parent :

B. LEISURE PREFERENCE: (Tick mark which is applicable)

1. **When you wake up in the morning:**
A. 5 am B. 5.30 am C. 6.0 am D. 6.30
2. **You take bath :**
A. daily B. alternate day C. after two days D. Once in a week
3. **Brush your teeth:**
A. Daily B. Alternate day C. After two days D. Once in a week.
4. **You take breakfast before going school:**
A daily B. usually c. occasionally D. never
5. **You polish your shoes:**
A daily B. usually C. occasionally D. never
6. **YOU cut your nail :**
A. Once in a week B. once in a fortnight

10 Minutes 20 Minutes 30 Minutes

40 Minutes 50 Minutes 60 Minutes

On which kind of news, you spend your maximum time?

Politics News Business News Sports News

Entertainment News Other News

1. Do you find news channels important part of your life? Yes/No
2. Do you think news channels are better than news papers? Yes/No
3. Are you satisfied with the news content of news channel? Yes/No
4. Do you think some news are exaggerated/ Yes/No
5. Do you feel that information about celebrities occupied more time than news? Yes/No
6. Do you think news channels content more advertisement than news? Yes/No
7. Are you attracted by advertisement and classified? Yes/No

Any Suggestions

Activity	Punctual	Usual	Occasional	Rarely
Wake up				
Bath				
Tooth brush				
Take breakfast				
Polish shoes				
Cut nail				
Change your dress				
Play game				

Present the data by bar diagram -

HEALTH CONDITION:

Fall ill	Always	Usually	Occasionally	Rarely
In a week				
In a Fortnight				
In a month				
In six month				
In a year				

ACADEMIC PERFORMANCE AND ILLNESS:

Marks in %	Always	Fall ill	occasionally	Rarely
		Usually		
0-33				
33-60				
60-80				
80-100				

Prepare histogram on the above data-

ANLYSIS OF DATA:

- (i) Find correlation between leisure preference & ill health.

C. once in a month D. once in a two month

7. You change your dress after coming school :

- A. immediately B. after lunch
C. in evening D. Next morning

8. You take sleep after lunch :

- A daily B. usually c. occasionally D. never

9. You play game in evening :

- A daily B. usually C. occasionally D. never

C. HEALTH CARE-

1. You fell ill:

- A once in a week B. in a fortnight
C. in a month D. in a year

2. What type of illness: A. temporary B. regular

3. You consult your doctor:

- A. immediately B. after some day C. after many days

4. Your weight is

- A.30-40 Kg B.40-50Kg C. 50-60Kg D. more than 60Kg

5. Your height is:

- A.4-5ft B. 5'-5'.6" C. 5'6"- 6' D. more than 6 ft.

D. ACADEMIC PREFERENCE :

1. You got marks in -

- UT 1 -> A. 0-10 B. 10-20 C. 20-30 D.30-40

- UT 2 -> A. 0-10 B. 10-20 C. 20-30 D.30-40

- IN HALF YRLY-> A. 0-33 B. 33-60 C. 60- 80 D.80-100

ORGANISATION OF DATA

CLASIFICATION OF DATA:

HABITS OF STUDENT

Project No-5.6

Title: Demand of Cosmetic Preference

(Winter Lotion)

Learning Objectives/ Outcome

After completion of this practical the learner will :

1. Describe the uses of winter lotion by the specific group of consumers.
2. State % of class (Upper, lower, middle) using this product.
3. Make an analytical study of the findings.

Collection of Data through Questionnaire:

Questionnaire:

Dear Respondents,

The following questionnaire is presented to you for conducting a survey about usefulness and your consumption, preference for winter lotion.

You are requested to give free and frank answer these questions.

Note:- The 10 respondents will be selected for free gift vouchers of our cosmetic items up to the value of Rs.1000/-.

The prize winner will be selected draw of lot.

1. Name :
2. Qualification :
3. Address :
4. Age :
(a) Below 15 yrs (b) 15-20 yrs
(c) 20-25 yrs (d) 25-30 yrs
(e) 30-40 yrs (f) 40-50 yrs

- (ii) Find correlation between ill health & academic performance.

INTERPRETATION OF DATA:

If there is high level of correlation in above. It means leisure preference affect health & health affect performance.

SUGGESTIONS:

For good academic preference, you leave leisure preference & be active.

REFERENCES:

1. Research Methodology by R C Kothari
2. Statistics for Economics, by NCERT.

12. What's your preference order while you purchase of a cosmetic product

- (a) Prize
- (b) Affection look and beauty
- (c) Packing & others
- (d) Packing & others

13. What defects do you find in your cosmetics :

- (a) Price is not proper
- (b) Packing is not attractive
- (c) Not available easily
- (d) Not so good

14. Do you think that it is necessary to use cosmetics for making your personality attractive?

- (a) Yes (b) No

15. How much money do you spent per month on cosmetics?

- (a). Less than Rs.100
- (b) Rs100-Rs.200
- (c) Rs.200-Rs.300

16. Which medium of advertisement attracts you most to use cosmetics.

- (a) Newspaper
- (b) Television
- (c) Magazine

The information obtained through questionnaire summarizes below based on data.

SUMMARIZED INFORMATION

- 1. Total Nos. of Informants
- 2. Total Nos. of questionnaires issued
- 3. Age distribution of Informants :

(g) 50-60 yrs

(h) 60 & above

5. Sex:

Male

Female

6. Marital status

Married

Unmarried

7. Occupation :

Business

Service

Agriculture

Unemployed

8. Income per month :

(a) Less than Rs.10,000

(b) Rs.10,000-Rs.15,000

(c) Rs.15,000-Rs.20,000

(d) Rs.20,000-Rs. 30,000

(e) Rs.30,000-Rs.40,000

(f) Above Rs.40,000

9. Which make-up aids you use:

(a) Hair oil

(b) Hair spray

(c) Powder

(d) Cream

(e) Winter care lotion

10. Which company's cosmetics do you generally used :

11. Which of our beauty aid do you purchase

(a) Hair oil

(b) Cream

(c) Winter care lotion

(d) Powder

Project No-5.7

Title: A Comparative Study of the Achievements of Girls and Boys in Social Studies at Secondary Level

OVER VIEW:

The girls are surpassing the boys at all levels in academic. So a curiosity was felt that what are the comparative positions of the achievement of girls and boys in social studies. Since, the project has to be allotted to the students of class X1 having opted commerce or humanities stream, that is why subject social science is chosen for the project work.

Objective of Project Work :

After completion of this practical the learner will :

1. Describe the comparative interest of girls and boys in social studies.
2. Explain whether it is the boys or the girls who exceed in the subject.
3. Suggest that which stream is good for boys and which for girls.

Design of the Project :

Students are required to prepare a project report on comparative study of achievement of girls and boys in social studies at high school level through collection of primary data by designing a questionnaire.

Students are advised to design a questionnaire to know the interest and achievement of girls and boys in the subject social studies. After this the students have to develop:

- (a) Key to the answer.
- (b) Answer sheet.

Thus, their tools for data collection may assume the following form :

Step Involved :

Drafting the test paper - 20 multiple type questions based on social studies have to be set.

- | | | | |
|------------------|--------------------------|----------------|--------------------------|
| (a) Below 15 yrs | <input type="checkbox"/> | (b) 15-20 yrs | <input type="checkbox"/> |
| (c) 20-25 yrs | <input type="checkbox"/> | (d) 25-30 yrs | <input type="checkbox"/> |
| (e) 30-40 yrs | <input type="checkbox"/> | (f) 40-50 yrs | <input type="checkbox"/> |
| (g) 50-60 yrs | <input type="checkbox"/> | (h) 60 & above | <input type="checkbox"/> |

FINDINGS OF SURVEY:- On the basis of data

- (a) Cosmetics are popular in service class and followed by professionals.
- (b) Less educated people and highly educated people are not use cosmetics.
- (c) The big market of cosmetics lies with middle income group.
- (d) Facial cream and hair oil products are popular cosmetics used by the most of the persons.
- (e) About 80% person favoured for use of cosmetics.
- (f) The persons spent between Rs.200-Rs.1000 per month

SUGGESTIONS AND RECOMMENDATION

There is lot of scope to the consumers of winter lotion product and various efforts should be made to popularize this product.

(2) Key to the Answer :

Question No.	Correct Answer
1	c
2	b
3	d
4	c
5	d
6	c
7	c
8	a
9	d
10	d

(3) Answer Sheet:

Name of the students -----

Class ----- Section -----

Roll No. -----

Instructions: Encircle the right answer and darken it .

<u>Question No.</u>	<u>Answer</u>
1	(a) (b) (c) (d)
2	(a) (b) (c) (d)
3	(a) (b) (c) (d)
4	(a) (b) (c) (d)
5	(a) (b) (c) (d)
6	(a) (b) (c) (d)
7	(a) (b) (c) (d)
8	(a) (b) (c) (d)
9	(a) (b) (c) (d)
10	(a) (b) (c) (d)

(1) Modal Questions

Q.1 When was COPRA launched?

- (i) 1974 (ii) 1980 (iii) 1986 (iv) 1999

Q.2 Globalization means the free flow of labour capital ----- and goods.

- (i) Currency (ii) Service (iii) Ticket (iv) Foreign.

Q.3 The biggest Commercial Bank of India is -----.

- (i) PNB (ii) RBI (iii) Canara Bank (iv) SBI

Q.4 The most frequent unemployment is ----- in India.

- (i) Frictional (ii) Cyclical (iii) Disguised (iv) Involuntary.

Q.5 Education is made a fundamental right in -----.

- (i) Act 13 (ii) Act 17 (iii) Act 21 (iv) Act 21 (A)

Q.6 Quit India movement was launched in ----- .

- (i) 1905 (ii) 1922 (iii) 1942 (iv) 1933 .

Q.7 The country that passes through the Tropic of cancer & Tropic of Capricorn.

- (i) Argentina (ii) Chile (iii) Brazil (iv) Mexico .

Q.8 Fundamental right are ----- .

- (i) Enforceable by court (ii) Available to the residents
(iii) Not enforceable by court (iv) Are the responsibility of the state.

Q.9 NEP was launched in ----- .

- (i) 1980 (ii) 1999 (iii) 1994 (iv) 1991.

Q.10 GDP growth rate for the year 2009 -2010 is -----.

- (i) 7 (ii) 8 (iii) 10 (iv) 9.

Identification of Project work on Indian Economy

Unit-1: Indian Economy on the Eve of Independence

(Low level of economic development under British rule in India; agricultural and industrial sectors, Basic infrastructure, occupational structure, demographic conditions and foreign trade in the in the country at the time of independence)

Framework

India is a fast growing country in twenty first century due to the initiatives of the government at central and state level. The development efforts in the country could be initiated only after independence. The country was under British rule for about two hundred years. Although the foreigners came to the country only after looking its developmental status. But the colonial rule ruined the agricultural and industrial infrastructure in the country and the country because just the supplier of raw material to the industries of other country, mainly the British industries.

The low level of economic development at the eve of independence, demographic conditions, occupational structure, developmental infrastructure, worse conditions of agricultural and industrial sector, adverse balance of trade are the subject matter of this unit.

Statistical data and information on the issues of the unit are available in statistical abstract, census of India, statistical handbook, agricultural statistics, Annual survey of Industries, Economic Survey of India etc of the period available in the laboratory.

Practical aspect

Some of the practical aspects in the units may be

1. Status of economic development in India since 1947
2. Study of agricultural sector in India during 1940s
3. Growth of industries in Indian Economy
4. A Study of India's Colonial foreign trade
5. Demographic structure of India at the time of Independence
6. Occupational Structure in India during colonial rule.

Framing a Sample :

Having designed the tools for data collection you must define the sample size of your study .Covering of all the students of high school may not be possible for a student of class XI .Best would be to take only students of class X and 20 students ,10 Boys and 10 Girls .

In your choice of a sample you can rely upon your knowledge of the various sampling techniques like random sampling or systematic sampling.

Collection of Data :

You will have 20 Questionnaire, 20 answer sheets and 01key to the answer sheet .You may personally approach each and every student (sample) or seek the help of your friends or classmates.

Similar or other type of practical titles may be developed and the practical may be conducted in the laboratory.

Learning Outcomes

After completion of the above practical aspects of this unit the students will be able to

1. Describe real situation of India during British rule with facts and figure
2. Elaborate the contribution of britishers in economic development in reality
3. Describe the agricultural, industrial and occupational structure of the country in qualitative and quantitative form.
4. Analyse the foreign trade of the country and draw concrete conclusions for development
5. Interpret data given in various publications of central and state government.
6. Apply various tools and techniques for economics data analysis.

Some Exemplar Practical

Practical No.1

Title: Status of Economic development in India at the eve of Independence

Material Required: Calculator, pen, notebook, census reports of 1941, agricultural statistics 1945/1946/1947, economic survey 1945/1946/1947, national income statistics, industrial survey 1945/1946/1947

Situation needed:

1. The teacher has to make an idea of economic development and clarify it to the students
2. The publications of the period should be made available to the students.

Precautions:

1. Clarify in your mind and note down the indicators of development and their formulae
2. Make the calculations correctly

Procedure:

1. Write the indicators of development in your notebook after consultation with the teacher.(Some of them may be (i) number of industrial workers per lakh of

population, (ii) workers employed in secondary and tertiary sector, (iii) Ratio of urban population to total population, (iv) per capita consumption of electricity, (v) consumption of fertilisers per hectare of land; (vi) percentage of villages electrified etc)

2. Take the census report and calculate i, ii, and iii
3. Take the agricultural statistics and calculate v and vi
4. Take the economic survey and calculate national and state income along with per capita.
5. Similarly calculate other indicators for inclusion in the report.
6. These indicators may also be calculated periodically (after 10 years interval) for future.
7. Present the data on the graph
8. Write reasons of underdevelopment
9. Prepare a report after asking format from the teacher.

Practical-2

Title: A Study on agricultural sector in India during 1940s

Material required: (1) Computer with excel uploaded, (2) Internet connection, (3) agricultural statistics 1940-47, (4) census data(1941), (5) Notebook (6) pen

Situation needed: The teacher has to elaborate the concept of development in agricultural sector and specify the indicators.

Precautions:

1. Use the computer with for specified care.
2. Make the calculations/feed the data in excel correctly

Procedure:

1. Write the indicators of agricultural development in your notebook and feed in the excel after consultation with the teacher
2. Take agricultural statistics and search the indicators like per hectare yield of different crops/percentage of irrigated area to total area sown/ no of agricultural workers per lakhs of populations etc.
3. Take the census data and calculate the concerned indicators
4. Calculate these indicators for the period 1940-47
5. Show them on the graphs
6. Prepare a bar diagram
7. Write report on agriculture in 1940-47 and submit to the teacher.

CHAPTER-VI

SUMMARY AND CONCLUSION

Generally, laboratory is a block of the room or a building with scientific equipment for doing scientific research, experiments, tests, investigations, observations or for teaching practical science subject like physics, chemistry, biology, zoology etc. In other words a laboratory is a facility that provides controlled conditions in which scientific or technical research, experiments and measurement may be performed. Computers are used for either simulations or analysis of data collected elsewhere. It is a workplace for the conduct of scientific research and offers opportunities for observation, practice and experiment. Altogether, it is a place for practice, observation or testing of collected data.

Economics is a subject/discipline of social science that distinguished from the physical, biological or environmental sciences, because it is concerned with the behaviour of "human beings as members of societies". We all know that human beings do not behave in the way as animals do when kept in laboratories. This poses a greater challenge to economists as they need to establish hypotheses and assumptions, which are general statements that formally show the existence of cause and effect relationships between observable events. Since, people's behaviour cannot be controlled while learning and developing economic theories, students of economics allow for a large element of unpredictability in human behaviour. This makes generalisation and predictability difficult in economics. However, since we live in societies and behave mostly in an orderly manner, behaviour can be considered as predictable.

Views given by different Board of Higher Secondary Education like CBSE(2008), Council for Indian Schools Certificate Examination(CISCE), International Baccalaureate(IB) Organisation, NCF-2005 has emphasis on the practical use of the theory in to practice. The children life at school must link to the life of outside school. The NPE(1986) and Programme of Action(1992) also recognise the activity-based learning approach. As per the city Bhasker, Dainik Bhasker, Bhopal (Date 03.11.2017) also states introduction of practical paper for 20 marks in Economics from the session 2017-18. So,

the development of model economic lab is indispensable to explore the practicability of the economic theory and various concepts of economics in the day-to-day life.

Even though lecture is the important method with which economics is imparted in secondary students and chalk and black boards are the only aids used in economics classrooms, that scenario is changing. Thanks to globalization and information technology, a large number of economics teachers look forward to use of information technology and wish to teach economics in innovative ways. Experimental economics is the application of experimental methods to study economic questions. Data collected in experiments are used to estimate effect size, test the validity of economic theories, and illuminate market mechanisms. Economic experiments usually use cash to motivate subjects, in order to mimic real-world incentives. Experiments are used to help understand how and why markets and other exchange systems function as they do. A fundamental aspect of the subject is design of experiments. Experiments may be conducted in the field or in laboratory settings, whether of individual or group behaviour. Variants of the subject outside such formal confines include natural and quasi-natural experiments. The statistics project work allows students to demonstrate the following skills:

- Collection of data - whether primary or secondary
- Interpretation and presentation of data and
- Analyzing data to come towards a meaningful conclusion to their findings.

Learning economics requires understanding of economic phenomena - relationship between various economic aspects of an economy. For this, students of economics gather/collect, measure and analyse information related to various economic aspects

With this background an attempt has been made to summarise the work done in the PAC programme. This development is based on workshop mode to achieve the objective of the programme such as firstly, to identify the infrastructure required for the development of model economics laboratory. Secondly, to promote the Project/Research Based Pedagogical Tool and Technique (RBPTT) for economic laboratory to analyze the

economic data to draw the inference, know the factual information and understand about the problems of economy at higher secondary level of school education. *Thirdly*, to prepare a documentation for innovative practices in economics teaching and learning at higher secondary level.

In order to achieve the above objectives the following methodology has been adopted as one-day planning meeting to explore the possibility of the infrastructure required, self-learning resources and development of pedagogical tool and technique for economic laboratory in school education (Activity-1). Five-days workshop to develop chapter-wise project/research based pedagogical tool and technique (RBPTT) for teaching and learning of economics at higher secondary level of school education (Activity-2). Field work to collect the secondary data and materials from the various government Offices like Census Office and Directorate of Economics & Statistics, of the respective states like Madhya Pradesh, Chhattisgarh, Maharashtra and Gujarat (Activity-3).

The Chapter-I deals with the introduction having the conceptual understanding of model economics lab and views of different board of higher secondary education on economics teaching and learning. The Chapter-II consists of background of the programme with statement of problems in economics teaching and learning, rationale of the programme, specific objectives and methodology. The Chapter-III dealt with infrastructure required for model economics lab and an exemplar format for development of chapter-wise RBPTT/PBPTT in Economics. The Chapter-IV focuses on the practical works and identified 17 practical works on different titles relating to microeconomics, macroeconomics and Indian economic development and statistics. The Chapter-V identified some project-based learning and project work on Indian Economy. The Chapter-VI deals with summary and conclusion.

Thus, it may be concluded that the model economics lab is necessary for practical understanding of the economics theory and different concepts of economics on experiment basis. For which information and communication Technology (ICT) is indispensable to have a new way of teaching and learning in the present scenario, but particularly in economics the laboratory must be well equipped with computers along

with appropriate software's like SPSS, Excel and E-views package etc. These software's are required for processing the data and drawing the relevant conclusion. On the basis of this one can make the certain policy decision for the development socio-economic background of the people in the country. Here, the students are learning the economics by doing the practical works in the laboratory after collection the data from the economy.

Appendix:

1. News paper clips

**युनिटीज को सौंपने
ही बचेंगे वनप्रदेश**
गडगिल ने कम्युनिटी फॉरेस्ट
मेंट पर की स्टूडेंट्स से चर्चा



पोर्ट | देश के करीब 95 प्रतिशत जंगलों के
बाव का काम सरकार ने अपने हाथों में ले
और किसी भी जंगल में अभी तक सरकारी
से ऐसी सफलता हाथ नहीं लगी है, जिसको
टोन कहा जा सके। जंगलों को बिना जन
के संरक्षित करना बेमानी है। बेहद जरूरी है कि
और इसमें रहने वाली कम्युनिटीज के आपसी
को समझा जाए और इसके अनुसार ही जंगलों
ाने के प्रयास शुरू हों। यह बात पद्म भूषण
व गडगिल ने गुरुवार को इंडियन इंस्टीट्यूट
रिस्ट मैनेजमेंट (आईआईएफएम) में कही।
गिल ने 'कम्युनिटी फॉरेस्ट मैनेजमेंट' पर अपनी
। प्रो. गडगिल ने कहा कि अर्बन कम्युनिटीज
अपने आस-पास के ग्रीन कवर को संरक्षित
लिए काम करने की जरूरत है।

जनवरी तक जमा करना हागा। सिलेबस में स चुन गए किसे
टॉपिक पर प्रोजेक्ट, फरवरी में एक्सपर्ट लेंगे वायवा

12वीं में अब होगा इकोनॉमिक्स के 20 अंक का प्रैक्टिकल भी

सिटी रिपोर्टर | भोपाल

सेंट्रल बोर्ड ऑफ सेकंडरी एजुकेशन
(सीबीएसई) ने 12वीं की परीक्षा में
इकोनॉमिक्स विषय के मूल्यांकन का स्वरूप
बदल दिया है। सीबीएसई ने यह बदलाव
तीन सालों से शिक्षकों से मिल रहे फीडबैक
के आधार पर किया है। इसके तहत मार्च
2018 के इकोनॉमिक्स विषय में 80 अंक
की थ्योरी और 20 अंक का प्रैक्टिकल होगा।
स्टूडेंट्स को सिलेबस ही प्रोजेक्ट रिपोर्ट
बनाकर जनवरी 2018 तक स्कूल में जमा
करना होगा। ऐसा इसलिए किया गया है क्योंकि
इकोनॉमिक्स के जरिए अर्थव्यवस्था का
एनालिसिस किया जाता है, जब किसी काम
का एनालिसिस किया जाता है तो वह प्रैक्टिकल
वर्क ही होता है। इकोनॉमिक्स में पढ़े जा रहे
विषयों का भी ग्राफिकल प्रजेंटेशन होता है
जिसके द्वारा विभिन्न मदों और इंडेक्स का
तुलनात्मक अध्ययन किया जाता है। इसके
बाद फरवरी में विषय विशेषज्ञ प्रैक्टिकल
लेंगे। इसके लिए जीएसटी, मनी मल्टीप्लायर,
ग्राइस डिस्क्रिमिनेशन, एक्सचेंज रेट सिस्टम,
क्रेडिट क्रिएशन, फूड सप्लाय चैन, हेल्थ
एक्सपेंडिचर जैसे विषय सुझाए गए हैं, टीचर्स

इस तरह मिलेंगे 20 अंक

- 3 अंक विषय की रिलेवेंसी
- 6 अंक नॉलेज, कंटेंट और रिसर्च
- 3 अंक प्रजेंटेशन टेक्नीक
- 8 अंक वायवा



चाहें तो सिलेबस से अन्य टॉपिक लेकर भी
प्रोजेक्ट दे सकते हैं।

इसके बाद फरवरी में विषय विशेषज्ञ
प्रैक्टिकल लेंगे। बोर्ड के अधिकारी ने बताया
कि नए बदलाव के तहत इकोनॉमिक्स पढ़ने
वाले छात्रों को थ्योरी पढ़ने के साथ-साथ
प्रैक्टिकल करने का भी मौका मिलेगा।

सिटी एंकर

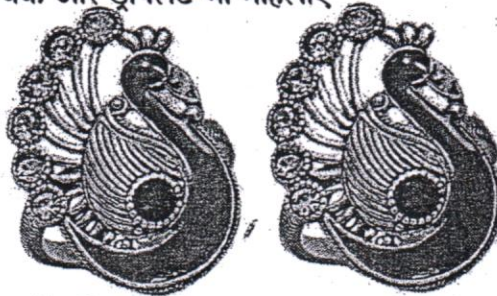
न्यूली मैरिड गर्ल्स पार्टी में भी पहन रही थीम बेस्ट बिछिया

रपंखी बिछिया के फंकी डिजाइंस

अब बिछिया के फंकी और ट्रेंडी लुक्स भी नजर आने लगे हैं। पारंपरिक चांदी
के बिछिया के अलावा बीड वर्क और डॉपलेट भी महिलाएं
पार्टीज में पहने नजर आईं।

सिटी रिपोर्टर | भोपाल

यू तो महिलाएं चांदी के बिछिया पहनना
पसंद करती हैं, लेकिन कभी-कभी नई
एक्सेसरीज के साथ बिछिया में भी
बदलाव कर लेती हैं। ऐसे ही बिछिया
के नए डिजाइन चांदी से हटकर फैशन
ज्वेलरी में देखने को मिले। जिसमें
बीड नेकलेस की तरह दिखने वाले
बीड बिछिया फेस्टिवल्स के दौरान
यंग मैरिड गर्ल्स पहनें दिखीं। इसमें
कछुए के डिजाइन वाले बिछिया में
मीनाकारी वर्क वाले डिजाइंस पसंद
किए गए। इसके अलावा मोबाइल
स्माइली डिजाइंस से इस्प्रायर्ड डिजाइंस
भी बिछिया में देखे गए, जो कि इंडो-
वेस्टर्न ट्रेस के साथ परफेक्ट मिक्स थे।



ऑक्सीडाइज के साथ कलमकारी बिछिया

पारंपरिक चांदी के बिछिया में ड्युमकी या डॉपलेट कम ही आती हैं लेकिन
फैशन ज्वेलरी में आने वाले बिछिया में हार्ट, लीफ, ड्युमकी, कबूतर जैसी
डॉपलेट को शामिल किया गया है, जिससे यह कुछ हटकर नजर आती हैं।
ऑक्सीडाइज के साथ कलमकारी बिछिया नए हैं, जो कि यंग गर्ल्स की
चॉइस में शामिल हैं। ट्रेडिशनल लुक के लिए काले मोतियों के साथ पिपेर
हुए नए डिजाइंस तैयार किए गए हैं। इस तरह के बिछिया में मोरपंखी
बिछिया, हाथी की सूंड के डिजाइन वाले बिछिया भी शामिल हैं।



भारत बिठल

इस दीपावली प
समर एवं विन्टर गार
मात्र 25 प्रतिश
ले

75 से 8

शर्ट, टी-शर्ट,
प्लाज़ो, लेगिंग

उपलब्ध मात्र



पन्द्रह सौ से दो हज़



ओसवाल फैक्ट्री व साहि

दीपावली से पहले।
बिकने वाले अ

यह बिक्री भं
आज

स्थान : द

बिठल मार्केट, भोपाल,

City Bhaskar
Date: 03/11/2017
Day: Friday
Dainik Bhaskar, Bhopal