FRAMING MULTIPLE CHOICE QUESTIONS (MCQs)

Evaluation is one of the most important aspect of Teaching –learning Processes. To assess the learning outcome on the part of learner from time to time to see the attainment levels ,testing is one of the commonly and widely used technique .Test items can be of many types i.e. Objective Type Questions, Very Short Answer Type, Short Answers or Essay Type. In all these categories different forms of test items can be prepared. For Objective Type –Fill in the Blanks, One Word Answer, True False, Matching /Batching and Multiple Choice Test Questions can also be formed. Recently CBSE has introduced 8 Mark MCQs in different disciplines at Sr. Secondary Level in Boards. Preparing students to choose the correct answer option for a given question out of the similar looking choices requires practice. For this the teachers themselves should build capacities to prepare such MCQs on different topics based on concepts and principles, It was conveyed by teachers in different forums including Need identification Workshop that some reading material on the techniques of preparing MCQs along with Exemplar on some topics be covered in the Manual .In the following Section you will find some useful material on the same.

Multiple Choice Test Questions, also known as items, can be an effective and efficient way to assess learning outcomes. Multiple Choice Test Items have several advantages which are as under-

**Versatility:** Multiple choice test items can be written to assess various levels of learning outcomes like recall, application, analysis, and evaluation. However, because students are choosing from a set of potential answers, multiple chose items are not an effective way to test student's creativity or his ability to organize and articulate thoughts.

**Reliability:** A good test is consistent in measuring a learning outcome. Multiple choice test items are less susceptible to guessing than true/false questions, making them a more reliable means of assessment. When the number of MC items focused on a single learning objective is increased test become more reliable. Scoring of multiple choice items is objective and consistent unlike the scoring of essay questions.

**Validity:** Validity is the degree to which a test measures the stated learning outcomes. Because students can answer a multiple choice item much more quickly than an essay question, tests based on multiple choice items can cover wider range of course material, thus increasing the validity of the assessment.

The key to taking advantage of these strengths, however, is construction of good multiple choice items.
A Multiple choice item consists of a problem, known as the STEM, and a list of suggested solutions, known as ALTERNATIVES. There is one correct or best alternative known as the ANSWER, and various incorrect or inferior alternatives, known as DISTRACTORS.

1. **The stem should be meaningful by itself.** It should present a definite problem. A stem that presents a definite problem focusing on the learning outcome and serve as a direct test of student's achievement of the learning outcome. A stem that does not present a clear problem, however, may test student's ability to draw inferences from vague descriptions.

**STEM IS NOT MEANINGFUL**

Question: Which of the following is a true statement?

1. BOP is balanced when receipts of foreign exchange are more than payments of foreign exchange.
2. BOP is surplus when receipts of foreign exchange are more than payments of foreign exchange.
3. BOP is deficit when receipts of foreign exchange are more than payments of foreign exchange.
4. BOP is autonomous when receipts of foreign exchange are more than payments of foreign exchange.

**BETTER STEM**

Question: When receipts of foreign exchange are more than payments of foreign exchange, BOP is

1. Balanced
2. Surplus
3. Deficit
4. Autonomous

2. **The stem should not contain irrelevant material,** which can decrease the reliability and the validity of the test scores.

Question: 'Break-even point' is the point where-

(a) Investment = Savings  (b) Consumption = Investment
(c) AD = AS  (d) Consumption = Income

3. **The stem should be negatively stated only when significant learning outcomes require it.** Students often have difficulty understanding items with negative phrasing. If a significant learning outcome requires negative phrasing, the negative element should be emphasized with italics or capitalization.
Question: APC can NEVER be -
(a) Positive  (b) 0  (c) more than 1  (d) Less than 1

4. The stem should be a question or a partial sentence. A question stem is preferable because it allows the student to focus on answering the question rather than holding the partial sentence in working memory and completing it with each alternative. The cognitive load is increased when the stem is constructed with a blank, so this kind of construction should be avoided.

Question: What is the slope of Autonomous Investment Line?
(a) Slope > 0  (b) Slope < 0  (c) 1 > Slope >0  (d) Slope = 0

Question: In case of 'Excess demand',
(a) Output will increase  (b) Output will decrease
(c) Employment will Increase  (d) Output cannot be increased

Constructing Effective Alternatives

1. All alternatives should be plausible. The function of the incorrect alternatives is to serve as distractors, which should be selected by students who did not achieve the learning outcome but ignored by students who did achieve the learning outcome. Alternatives that are implausible do not function as effective distracters and should not be used. Common student errors provide the best source of distracters.

Question 1 'Induced Investment' is related to-
(a) MPC  (b) MPS  (c) MEC  (d) Govt

2. Alternatives should be stated clearly and concisely. Items that are excessively wordy assess student's reading ability rather than their attainment of the learning objective.

Question: 2 In consumption line \( C = a + bY \), what does 'b' denotes?
(a) Multiplier of Income  (b) MPS
(c) Slope of consumption line  (d) C/Y

3. Alternatives should be mutually exclusive. Alternatives with overlapping content may be considered “trick” items by test-takers, excessive use of which can erode trust and respect for the testing process.

Question: In the case of \( AD>AS \), level of inventory stock -
(a) Increases  (b) Decreases  (c) Remains same  (d) none of the above
4. **Alternatives should be homogenous in content.** Alternatives that are heterogeneous in content can provide cues to student about the correct answer.

**Question 4** When $K = 1$, then
(a) MPC > 0  (b) MPC < 1  (c) MPC = 1  (d) MPC = 0

5. **Alternatives should be free from clues about which response is correct.** Sophisticated test-takers are alert to inadvertent clues to the correct answer, such differences in grammar, length, formatting, and language choice in the given alternatives. It is therefore important that alternatives
- have grammar consistent with the stem.
- are parallel in form.
- are similar in length.
- use similar language

**Question: 5** Which can be negative from the following?
(a) MPC  (b) APC  (c) MPS  (d) APS

6. **The alternatives “all of the above” and “none of the above” should not be used.** When “all of the above” is used as an answer, test-takers who can identify more than one alternative as correct can select the correct answer even if unsure about other alternative(s). When “none of the above” is used as an alternative, test-takers who can eliminate a single option can thereby eliminate a second option. In either case, students can use partial knowledge to arrive at a correct answer.

**Question: 6** Economy is at under employment equilibrium. What should Central Bank do?
(a) Increase Bank Rate  (b) Increase CRR  (c) Increase SLR  (d) None of the above

7. **The alternatives should be presented in a logical order** (e.g., alphabetical or numerical) to avoid a bias toward certain positions.

**Question 7** What will be the value of multiplier if MPC is 0.5?
(a) 0.5  (b) 1  (c) 2  (d) 5

8. **The number of alternatives can vary among items as long as all alternatives are plausible.** Plausible alternatives serve as functional distractors, which are those chosen by students that have not achieved the objective but ignored by students that have achieved the objective. There is little difference in difficulty, discrimination, and test score reliability among items containing two, three, and four distractors.
**Additional Guidelines**

1. **Avoid complex multiple choice items**, in which some or all of the alternatives consist of different combinations of options. As with “all of the above” answers, a sophisticated test-taker can use partial knowledge to achieve a correct answer.

2. **Keep the specific content of items independent of one another.** Savvy test-takers can use information in one question to answer another question, reducing the validity of the test.

**Question:** Aggregate supply is always equal to ____________.

(a) National Income  
(b) C + I  
(c) Saving = Investment  
(d) S + I

**Considerations for Writing Multiple Choice Items that Test Higher-order Thinking**

When writing multiple choice items to test higher-order thinking, design questions that focus on higher levels of cognition. A stem that presents a problem that requires application of course principles, analysis of a problem, or evaluation of alternatives is focused on higher-order thinking and thus tests student's ability to do such thinking. In constructing multiple choice items to test higher order thinking, it can also be helpful to design problems that require multi-logical thinking, where multi-logical thinking is defined as “thinking that requires knowledge of more than one fact to logically and systematically apply concepts to a problem” (Morrison and Free, 2001).

Bloom’s Taxonomy

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*by Patricia Armstrong, Assistant Director, Center for Teaching*

- Background Information
- The Original Taxonomy
- The Revised Taxonomy
- Why Use Bloom’s Taxonomy?
- Further Information

**Background Information**

In 1956, Benjamin Bloom with collaborators Max Englehart, Edward Furst, Walter Hill, and David Krathwohl published a framework for categorizing educational goals: *Taxonomy of Educational Objectives*. Familiarly known as *Bloom’s Taxonomy*,
this framework has been applied by generations of K-12 teachers and college instructors in their teaching.

The framework elaborated by Bloom and his collaborators consisted of six major categories: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. The categories after Knowledge were presented as “skills and abilities,” with the understanding that knowledge was the necessary precondition for putting these skills and abilities into practice.

While each category contained subcategories, all lying along a continuum from simple to complex and concrete to abstract, the taxonomy is popularly remembered according to the six main categories.

### The Original Taxonomy (1956)

Here are the authors’ brief explanations of these main categories in from the appendix of *Taxonomy of Educational Objectives (Handbook One, pp. 201-207)*:

- **Knowledge** “involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting.”
- **Comprehension** “refers to a type of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications.”
- **Application** refers to the “use of abstractions in particular and concrete situations.”
- **Analysis** represents the “breakdown of a communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between ideas expressed are made explicit.”
- **Synthesis** involves the “putting together of elements and parts so as to form a whole.”
- **Evaluation** engenders “judgments about the value of material and methods for given purposes.”

The 1984 edition of *Handbook One* is available in the CFT Library in Calhoun 116. See its ACORN record for call number and availability.

While many explanations of Bloom’s Taxonomy and examples of its applications are readily available on the Internet, this guide to Bloom’s Taxonomy is particularly useful because it contains links to dozens of other web sites.

Barbara Gross Davis, in the “Asking Questions” chapter of *Tools for Teaching*, also provides examples of questions corresponding to the six categories. This chapter is not
available in the online version of the book, but *Tools for Teaching* is available in the CFT Library. See its ACORN record for call number and availability.

<table>
<thead>
<tr>
<th>The Revised Taxonomy (2001)</th>
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A group of cognitive psychologists, curriculum theorists and instructional researchers, and testing and assessment specialists published in 2001 a revision of Bloom’s Taxonomy with the title *A Taxonomy for Teaching, Learning, and Assessment*. This title draws attention away from the somewhat static notion of “educational objectives” (in Bloom’s original title) and points to a more dynamic conception of classification.

The authors of the revised taxonomy underscore this dynamism, using verbs and gerunds to label their categories and subcategories (rather than the nouns of the original taxonomy). These “action words” describe the cognitive processes by which thinkers encounter and work with knowledge:

- Remember
- Recognizing
- Recalling
- Understand
- Interpreting
- Exemplifying
- Classifying
- Summarizing
- Inferring
- Comparing
- Explaining
- Apply
- Executing
- Implementing
- Analyze
- Differentiating
- Organizing
- Attributing
- Evaluate
- Checking
- Critiquing
- Create
- Generating
In the revised taxonomy, knowledge is at the basis of these six cognitive processes, but its authors created a separate taxonomy of the types of knowledge used in cognition:

- Factual Knowledge
- Knowledge of terminology
- Knowledge of specific details and elements
- Conceptual Knowledge
- Knowledge of classifications and categories
- Knowledge of principles and generalizations
- Knowledge of theories, models, and structures
- Procedural Knowledge
- Knowledge of subject-specific skills and algorithms
- Knowledge of subject-specific techniques and methods
- Knowledge of criteria for determining when to use appropriate procedures
- Metacognitive Knowledge
- Strategic Knowledge
- Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge
- Self-knowledge

An Encyclopedia of Educational Technology guide to the revised version provides a brief summary of the revised taxonomy and a helpful table of the six cognitive processes and four types of knowledge.

Why Use Bloom’s Taxonomy?

The authors of the revised taxonomy suggest a multi-layered answer to this question, to which the author of this teaching guide has added some clarifying points:

1. Objectives (learning goals) are important to establish in a pedagogical interchange so that teachers and students alike understand the purpose of that interchange.
2. Teachers can benefit from using frameworks to organize objectives because
3. Organizing objectives helps to clarify objectives for themselves and for students.
4. Having an organized set of objectives helps teachers to:
   - “plan and deliver appropriate instruction”;
   - “design valid assessment tasks and strategies”; and
   - “ensure that instruction and assessment are aligned with the objectives.”
MICRO ECONOMICS - EXEMPLAR MCQ

1. The production possibility curve is concave to the origin due to
   (a) increasing M.R.T.
   (b) constant M.R.T.
   (c) decreasing M.R.T.
   (d) any of the above.

2. When marginal utility is positive
   (a) total utility will increase
   (b) total utility is zero
   (c) total utility will be maximum
   (d) all the above.

3. If the marginal rate of substitution (MRS) declines, then the indifference curve is
   (a) concave to the origin
   (b) straight line cutting both the axes
   (c) convex to the origin
   (d) none of the above.

4. The slope of the budget line is measured by
   (a) MRSxy
   (b) ratio of MUx/MUy
   (c) ratio of the prices of the 2 goods
   (d) all the above.

5. If the price of good x shown on x-axis falls, then the budget the will
   (a) shift to the right
   (b) shift to the left
   (c) rotate to the right on the x axis
   (d) rotate to the left on the x axis.

6. The budget line is a straight the because.
   (a) price ratio of the 2 goods remains the same.
   (b) income of the consumer remains the same.
   (c) both price ratio & income remain the same.
   (d) none of the above.

7. The demand curve will shift to the right when:
   (a) price falls & income is same
(b) price same & income falls  
(c) price same & income rises  
(d) Birth price & income increase.

8. When price of the substitute good increases, then  
(a) the demand curve for the good will shift to the right  
(b) the demand curve for the good will shift to the left  
(c) there will be an upward movement along the demand curve  
(d) there will be a downward movement along the demand curve.

9. If the cross price effect is negative then the demand curve in the good will  
(a) shift to the left if the price of the other good falls  
(b) shift to the right if the price of the other good rises  
(c) shift to the left if the price of the other good rises  
(d) any of the above.

10. The demand for an inferior good will shift to the right when  
(a) income of consumer rises  
(b) income of the consumer falls  
(c) price of the good rises  
(d) price of the good falls.

11. If the demand curve for a good is parallel to the x axis then  
(a) its price elasticity & demand is infinity  
(b) its price elasticity of demand is zero  
(c) its price elasticity of demand is one  
(d) none of the above.

12. If the area under each and every coordinate on a demand curve is the same, then  
(a) the ped is zero  
(b) the ped is one  
(c) the ped is infinity  
(d) none of the above.

13. When is the marginal product is positive, then  
(a) the total product will increase at increasing rate  
(b) the total product will increase at decreasing rate  
(c) the total product will reach maximum  
(d) all the above.
14. When average product is rising, marginal product can fall it
   (a) Average product is more than marginal product
   (b) average product is less than marginal product
   (c) average product is equal to marginal product
   (d) none of the above.

15. When marginal product is negative, then
   (a) total product is zero
   (b) total product rises
   (c) total product falls
   (d) any of the above.

16. The total fixed cost curve is parallel to the x axis because
   (a) expenditure on fixed factors increases as output increases
   (b) expenditure on fixed factors is zero at zero level of output & increases thereafter
   (c) expenditure on fixed factors is same throughout the production process
   (d) none of the above.

17. The average fixed cost curve is a rectangular hyperbola because
   (a) TFC remains constant during production in the short run
   (b) TFC decreases as more units are produced
   (c) TFC is zero at zero level of output
   (d) none of the above.

18. TVC curve will increase at decreasing rate when
   (a) AFC increases
   (b) Marginal product increases
   (c) Total product increases at decreasing rate
   (d) None of the above.

19. TVC curve will increase at increasing rate when
   (a) AFC falls
   (b) Marginal product decreases
   (c) Total product increases at increasing rate
   (d) All the above.

20. Under perfect competition,
   (a) AR=MR because price is uniform for all levels of output sold.
   (b) AR > MR as to sell more units, price is reduced.
(c) AR=MR because the increases at increasing rate
(d) None of the above.

21. A producer is said to be in equilibrium under perfect competition when
(a) AR=MR=Price and MC curve is falling when MC=Price
(b) Price=MC and MC curve is rising at the point of equally.
(c) Price > MC & MC is falling.
(d) Any of the above.

22. The price elasticity of supply of a good shown by a supply curve starting from the origin and making an angle of 75° with the x axis is
(a) infinity
(b) zero
(c) one
(d) greater than 1

23. If the supply curve of a good shifts to the lift it may mean that the cost of production has risen and
(a) Marginal cost has faller
(b) Marginal cost has risen
(c) Marginal cost is unaffected
(d) TFC has increased.

24. If the price of substitute goods in production rises, then the supply curve of the good will
(a) shift to the right
(b) shift to the left
(c) remain unaffected
(d) downward sloping to the right.

25. Excess demand for a good will cause
(a) competition amongst sellers which will push the price down
(b) competition amongst buyers which will push the price up.
(c) competition amongst sellers which will push the price up.
(d) Competition amongst buyer which will push the price down.
Q. The Market of Sugar is in Equilibrium. The Demand to sugar increases due to festival season. Explain the chain effect of this change. How the market again attain the Equilibrium?

A. Increase in demand of sugar result in excess demand. It causes competition among the buyers of sugar resulting in rise in price. Rise in price of sugar reduces its demand and increases supply. Excess demand is reduced. Those changes continue till demand and supply of sugar are equal at new price. New price of sugar is higher than old price.

* For Teachers:
Please make a 'Question Bank' comprising of similar questions for Board Papers & Sample Papers. At least 5-10 and give enough practice to students. Please explain with diagrams wherever required.
RELATIONSHIP BETWEEN AGGREGATES OF NATIONAL INCOME

ABSTRACT

Computation of National Income is one of the most important topics in class XII Economics Syllabus. Students have fair idea of the meaning of National Income that it is the final value of goods and services produced over a period of time and the net factor payments earned from abroad. They also have an understanding that it serves as an important indicator of growth of any nation. While teaching the Measurement of National incomes the students have to be given a thorough meaning and understanding of its various components.

National Income is the most important measure of economic activity. A steadily growing the GNP is taken as a sign of healthy economy and a decline/drop in the GNP means a recession. Computing National Income by different methods yield same results. How these differ and what is its relevance should be explained to students before introducing them with the arithmetical calculation of the same.

The three Methods of Measurement of National Income namely:

1. Value Added
2. Income Method
3. Expenditure Method

The comprehension of each item under the methods has to be first taken up by the teacher in the class instead of taking the direct formula approach. For example the concepts like Final Goods, Intermediate Goods, and Depreciation, Concept of Double Counting, Transfer Payments, Personal income, Personal Disposable Income Subsidy, and Indirect Taxes etc. have to be understood to avoid mere cramming of formulae.

You will find in the present section Diagrammatic presentation of computing National Income under each Method. After explaining all terms/components take up this presentation.
Relationship between Aggregates of National Income

Value Added and its Related Measures

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<th>Formula</th>
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<td>Sales + Change in Stock</td>
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<tr>
<td>Gross Value Added at MP</td>
<td>Value of Output - Value of Intermediate Consumption</td>
</tr>
<tr>
<td>Net Value Added at MP</td>
<td>Gross Value added at MP - Consumption of Fixed Capital</td>
</tr>
<tr>
<td>Net Value Added at Factor Cost</td>
<td>Net Value Added at MP - NIT</td>
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### Reconciling the Time Methods of Measuring GDP

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<th>Expenditure Method</th>
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<td>Net Indirect Taxes</td>
<td>Private Final Consumption Expenditure</td>
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<tr>
<td>Value Added in the Secondary Sector at Factor Cost (Sales + Stock - I.C)</td>
<td>Consumption of Fixed Capital</td>
<td>Govt. Final Consumption Expenditure</td>
</tr>
<tr>
<td>Net Value Added in the Services Sector at Factor Cost (Sales + Stock - I.C)</td>
<td>Compensation of Employees</td>
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</tr>
<tr>
<td></td>
<td>Operating Surplus (R+I+P)</td>
<td>Net Export of Goods &amp; Services</td>
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<tr>
<td>GDP at Market Price</td>
<td>Mixed Income of the Self Employed</td>
<td></td>
</tr>
</tbody>
</table>

**Disposable Income Aggregate**

\[ \text{NDP}_{FC} \]

- Less: Income from property and entrepreneurship accruing to the Govt. administration departments
- Less: Saving of non-departmental enterprises
  \[ = \text{NDP}_{FC} \text{ accruing to the Private Sector} \]
- Add: Net Factor Income from Abroad
- Add: National Debt Interest
- Add: Current transfers from the Govt. Administration Deptt.
- Add: Net current transfers from the rest of the World
  \[ = \text{Private Income} \]
- Less: Saving of the Private Corporate Sector (Net of retained earning of the foreign companies)
- Less: Corporate Tax
  \[ = \text{Personal Income} \]
- Less: Direct Taxes paid by households
- Less: Miscellaneous receipts of Govt. Administration Departments
  \[ = \text{Personal Disposable Income} \]
EXEMPLAR MCQs

1. Which out of the following is not a final good:
   (a) Refrigerator in a restaurant.
   (b) Refrigerator in the hospital.
   (c) Refrigerator in the chemist shop.
   (d) Refrigerator purchased by electronic showroom.

2. Identify the flow variable:
   (a) Capital formation
   (b) Wealth
   (c) Inventories
   (d) Capital

3. Which out of the following is included in National Income estimation:
   (a) Old-age pension
   (b) Scholarship
   (c) Unemployment Fund
   (d) Subsidized Lunch at Office.

4. Sector which is engaged in production of services:
   (a) Tertiary Sector
   (b) Primary Sector
   (c) Secondary Sector
   (d) Joint Sector

5. Which out of the following items will be included while calculating National Income by the Expenditure Method:
   (a) Royalty
   (b) Intermediate consumption
   (c) Net Exports
   (d) Profit

6. Sum of NNP and net current transfers from abroad is equal to:
   (a) Gross National Disposable Income
   (b) Net National Disposable Income
   (c) Personal Disposable Income
(d) Personal Income

7. \( \text{NDP}_{MP} \) will be equal to:
   (a) \( \text{NDP}_{FC} + \text{Depreciation} \)
   (b) \( \text{NDP}_{FC} + \text{Indirect Taxes} \)
   (c) \( \text{NDP}_{FC} - \text{Subsidies} \)
   (d) \( \text{NDP}_{FC} + \text{Net Indirect Taxes} \)

8. Net Domestic Product at factor cost is called:
   (a) Domestic Income
   (b) National Income
   (c) Private Income
   (d) Personal Income

9. In which case Net Indirect taxes be equal to zero:
   (a) Indirect taxes < subsidies
   (b) Indirect taxes > subsidies
   (c) Indirect taxes = subsidies
   (d) None of the above.

10. Income of the Households from all sources is:
    (a) Private Income
    (b) Personal Disposable Income
    (c) National Disposable Income
    (d) Personal Income

11. Social Welfare is the sum total of:
    (a) Economic welfare
    (b) Non-Economic welfare
    (c) Economic and Non Economic Welfare
    (d) None
VALUE BASED QUESTION

1. Mothers render many services to the family, which are unparalleled. Should they be included in the estimation of National Income? Give reason.

2. How should the following be treated in estimation of National Income? Give reason.
   “Taking Care of aged parents”

3. Felling of trees is continuously increasing. It is however causing a lot of problems to the society in the form of pollution. Explain this as a negative externality affecting welfare. Suggest anyone measure to check it.

For teachers:

Discuss the above question in the classroom and encourage students to debate and give their own arguments in support of their answers as there is no 'absolute' answer for these VBQ. You should channelise their viewpoints in the positive direction as teachers. The 'Identification of Value Components' in the situation/question given is the important aspect of answering correctly & precisely.
ABSTRACT

Micro economics and macroeconomics from an integral part of Class XII economics. However, they are not water tight compartments and have to be studied with different approaches. It requires deep understanding of the rational thought process of an individual and how to relate it to aggregates.

The present section deals with the chapter of determination of Income and employment where the following are covered.

• Aggregate demand and aggregate supply
• Consumption function.
• Savings function
• MPC and MPS.
• Inflationary and deflationary gap.
• Measures to constant money supply.
• Investment multiplies.
• Model numerical questions.
• Value based questions.

National Income: Defined as the sum total of the factor incomes earned by all the factors of the economy during an accounting year.

Income = Output = Expenditure

Estimation of National Income

In closed economy with no Govt. Intervention

\[ AD = Y = C + I \]

\[ C = \text{Consumption} \]
\[ I = \text{Investment} \]
\[ O = \bar{O} \]

In open economy with Govt. role.

\[ Ye = C + I + G + (X - M) \]

\[ G = \text{Govt Exp.} \]
\[ X - M = \text{Net Exports} \]
CONSUMPTION FUNCTION

\[ C = \bar{C} + by \]

\( \bar{C} \) = autonomous consumption

\( B \) = Marginal propensity to consume

\[ B = \frac{\Delta C}{\Delta y} \]

\( \bar{C} \) = consumption at O in come.

\( I \) = Assumed to be autonomous and constant

Reference them = \( AS = AD \) line = \( 45^\circ \) line representing Income

\[ Y = e + s \]

At A : \( S = O \)

\( C = y \)

Before A: Disaving \( S < O \)

\( C < 4 \)

After A: Positive Saving: \( S > O \)

\( C < 4 \)

At A :

\[ APS = 0 \]

\[ APC = 1 \]

However MPC & MPS cannot be negative

\( AD = C + I \)

\( \bar{C} + by + I \)

Economy is inequilibrium where \( AS = AD \)

i.e. at \( E_0 \) (\( y_0 \) level of Income)

Equilibrium is of 3 types

(1) Full employment equilibrium.

When \( AS = AD \) at full employment level.

(2) Under employment equilibrium

\( AS = AD \) before full employment is reached.

Characterised by structural unemployment

\( Ex — Full empp. eqn. \)

\( E_0 — Under emp. eqn. \)
\[ AD_F - AD_U = \text{Deflationary gap}. \]

(3) More than full employment equilibrium

**INFLATION**

When demand exceeds full capacity supply

Causes price rise or inflation as induction cannot be increased.

\[ AD_E - AD_F = \text{Inflationary Gap}. \]

Inflation can be due to following reasons:

(1) Cost Push inflation: Due to supply side constraints rise in cost of production which in turn leads to inflation.

(2) Demand Pull inflation: Due to excess demand in the economy.

Measures to correct Inflation.

(1) Cost push inflation can be controlled by making inputs cheaper through subsidies, tax relaxations easy loans at low interest rates etc.

(2) Demand Pull inflation can be curbed by reducing cash in the hands of the public i.e. affecting the purchasing power of the people.

**Monetary & Fiscal Policy**

Fiscal Policy: Policies related to government measures to affect purchasing power of people.

(1) Tax - Increase taxes in case of inflation.

(2) Govt. Exp. – Reduce Govt. Expenditure.

Monetary Policy: Policies adopted by RBI for credit control by way of controlling money supply.

They are of two types:

(1) Qualitative — applicable equally to economy as a whole. These do not differentiate between various sectors of the economy.

(2) Qualitative – Use to control and direct credit from and to particular sectors for balanced growth and prevention of bubbles.

In case of inflation, policy measures are taken to decrease purchasing power in the economy.

Credit is made costlier and the policy is known as ‘DEAR MONEY POLICY’.

In case of deflation policy measures adopted are aimed at increasing purchasing power with the public. Credit is made cheaper and is called ‘CHEAP MONEY POLICY’.
INVESTMENT MULTIPLIER

The factor by which income increase due to one time increase in investment.

Denoted by k.

\[ k = \frac{\Delta Y}{\Delta I} \]

Incorrectically defined as the rate of change of income w.r.t. change in investment.

\[ Y = C + I \]
\[ Y = \bar{C} + by + I \]
\[ \Delta Y = b\Delta y + \Delta I \]
\[ \Delta I = (1 - b)\Delta y \]

\[ k = \frac{\Delta y}{\Delta I} = \frac{1}{1 - b} \]

\[ k = \frac{1}{1 - MPC} = \frac{1}{MPS} \]

K and MPC are directly related.

K and MPS are inversely related.

Therefore, to achieve greater increase in income, people are motivated to consume more and save less.

Q1. As a result of increase in investment by Rs. 1000 crores rational income increases by Rs. 5000 crore. Find MPC & MPS.

A. \[ k = \frac{1}{1 - MPC} = \frac{\Delta y}{\Delta I} \]

\[ k = \frac{5000}{1000} = 5 \]

\[ 5 = \frac{1}{MPS} \]

MPS = 0.2
MPC = 1 – MPS
= 1 – 0.2
= 0.8
Q2. \( C = 100 + 0.74, I = 5000 \)

Calculate (i) Equilibrium level of Income (ii) Consumption expenditure at that level of income

A. At equilibrium

\[
y = C + I \\
y = 100 + 0.74 + 500 \\
y = 0.74 \times 600 \\
Y = 200
\]

(i) Equilibrium income = 2000

(ii) 

\[
C = 100 + 0.74 \\
= 100 + 0.7 \times 2000 \\
= 100 + 1400 \\
= 1500
\]

**VALUED BASED QUESTIONS**

Q1. Countries like India are characterized by unemployment along with inflation. Site are reason for the above.

Q2. Mention one measure by which credit can be directed from industrial sector to agricultural sector.

Q3. Give an example where the consumption is not zero even when income is zero.

Unemployed people

Even voluntarily unemployed can be included

Eg. Children, senior citizens, students, Housewives.

Q4. How has construction of Delhi metro helped in economy?

* See the following for Suggestive Answers
SUGGESTIVE ANSWER KEYS TO VALUE BASED QUESTIONS

A1. India is characterized by unemployment not because of lack of demand but due to inefficient labour or lack of supply of skilled labour.

   Inflation is more of cost push inflation rather than demand pull inflation

A.2 1. Change in marginal requirement 2. Credit Rationing

   (or any other with explanation.)

A.2  Unemployed people

   Even voluntarily unemployed can be included

   E.g. Children, Senior Citizens, Students, Housewives

A.4 1. Increase employment

2. Sanes time

3. Increase efficiency due to convenient travelling

4. Reduced pollution

5. Multiplies effect on income from investment.
On the basis of the theatrical background of determination of income and employment you will find the exemplar MCQs on the same in the following section:

**MCQs on Determination of Income and Employment**

1. As income increases the average propensity to consume falls because
   (a) as income increases, consumption increases at a faster rate
   (b) as income increases, consumption increases at a slower rate
   (c) as income increases, consumption decreases.
   (d) none of the above.

2. When income is zero, then Autonomous consumption is
   (a) equal to income
   (b) equal to dissavings
   (c) both (a) & (b)
   (d) none of the above.

3. Marginal propensity to consumer is
   (a) ratio of change in income to a charge in consumption over a period of time.
   (b) ratio of change in consumption to a change in income over a period of time.
   (c) never greater than one
   (d) a & c
   (e) b & c

4. In the consumption function denoted by +by, b refers to
   (a) MPS & slope of consumption function
   (b) MPC & slope of consumption of function
   (c) MPS & slope of savings function
   (d) none of the above.

5. At break even point.
   (a) savings is equal to income
   (b) income is zero
   (c) all of income is consumed
   (d) savings is negative.
6. Which of the following cannot be greater than 1,
   (a) APS
   (b) MPS
   (c) APC
   (d) a & b
   (e) b & c
7. The sum of which of the following is equal to one
   (a) MPC & APC
   (b) MPC & APS
   (c) MPC & MPS
   (d) APs & MPS
8. When planned saving is less than planned investment then
   (a) increase in unplanned inventors
   (b) decrease in unplanned inventories
   (c) no change in inventories
   (d) decrease in production, employment & income.
9. The minimum value of the multiplier is
   (a) zero when MPC is one
   (b) one when MPC is zero
   (c) infinity when MPC is 1
   (d) None of the above.
10. Multiplies is directly related to
    (a) MPC
    (b) MPS
    (c) Level of aggregate consumption
    (d) Level of aggregate saving.
11. Equilibrium level of income & employment refers to a situation where aggregate
    demand = aggregate employ.
    (a) at full employment
    (b) before full employment
    (c) after full employment
    (d) any of the above.
12. Autonomous investment is
    (a) independent of level of income
(b) independent of rate of interest
(c) independent of profit motive
(d) all the above.

13. At equilibrium
   (a) ex-ante savings = ex-ante investment
   (b) ex-post savings = ex-post investment
   (c) expost savings = ex-post investment = exante savings = ex-ante investment
   (d) none of the above.

14. Excess demands in an economy occurs then
   (a) aggregate demand is greater than aggregate supply
   (b) aggregate demand is less than aggregate supply
   (c) aggregate did is equal to agg. supply at full employment
   (d) agg. did is greater than aggregate supply at level of full employment.

15. Which of the following is used to combat excess demand in an economy:
   (a) Increase in bank rate
   (b) Reduction in C.RR.
   (c) Reduction in S.L.R.
   (e) all the above.

16. Which of the following is part of fiscal policy of the govt.:
   (a) sale of securities
   (b) government spending & taxation
   (c) credit rationing
   (d) none of the above.

17. Find the error in the diagram.
18. Find the error in the diagram showing:

19. Show error in depicting inflationary gap:

There will be multiple choice Questions (MCQs) carrying 01 mark each for class XII march 2015 examination. A set of MCQs are being provided for the RPs so that they can incorporate more of the kind in relevance to the course design accorded to them.
UNIT - I

1. Macro economics
   (a) Behaviour of individual economic units
   (b) Price theory of goods
   (c) Allocation of resources
   (d) Aggregates of the whole economy.

2. Micro economics
   (a) Individual economic units
   (b) Price determination of goods
   (c) Equilibrium of a consumer and producer
   (d) all of the above.

3. Production
   (a) Creating goods and services
   (b) Using up of goods and services for direct satisfaction
   (c) addition to the existing capital stock of an economy.
   (d) Goods resold in the market.

4. Consumption
   (a) creating goods a services
   (b) addition to the existing capital stock of an economy
   (c) utilising gods and services for direct satisfaction.
   (d) goods resold in the market.

5. Capital formation
   (a) surplus of production over consumption
   (b) goods resold in the market
   (c) creating goods and services
   (d) addition to the existing capital stock of an economy.

6. Resources of an economy
   (a) Land
   (b) Labour
   (c) Capital
   (d) Entrepreneurship
   (e) All of the above.

7. Economic problem occurs due to
   (a) Unlimited wants
(b) Unlimited resources
(c) Limited wants
(d) Alternative use of resources.

8. Problem of Allocation of resources
(a) What to produce
(b) Problem of economic growth
(c) Problem of optimum utilisation of resources.

9. Shape of PPC is
(a) Concave to the origin
(b) Course to the origin
(c) Upward rising from origin
(d) all of the above

10. Increasing MOC/MRT implies
(a) Concavity of PPC
(b) Consecity of PPC
(c) Straight line PPC
(d) None of the above

11. Reason for increasing MOC/MRT
(a) Law of diminishing returns/increasing costs
(b) Law of variable proportions
(c) Law of increasing returns/deminishing costs.
(d) None of the above.

12. Massive unemployment is indicated by
(a) Left ward shift in PPC
(b) rightward shift in PPC
(c) under-utilisation of resources by a point inside PPC
(d) Over-utilisation of resources.

**ANSWER KEY**

1. (a) 7. (a), (d) & e
2. (d) 8. (a)
3. (a) 9. (a)
4. (c) 10. (a)
5. (a) & (d) 11. (a)
6. (e) 12. (c)
GAMING MACROECONOMICS: LEARNING SAVINGS AND CONSUMPTION CONCEPTS THROUGH GAME

M.V. Srinivasan¹

Introduction

Economics is a discipline that connects to our lives very closely, yet in most classrooms this subject is taught in an abstract manner. Students memorise theories, diagrams, formulas and equations and vomit in examinations and forget after coming out of the examination hall. This phenomenon – alienation, led the National Curriculum Framework (NCF 2005) to suggest that there is a need to connect the life in classroom with life outside the classroom. Yet, we as teachers mostly presume that it is possible only in some curricular areas and that too in lower classes. Also the pressure exerted by parents, schools, examination-driven syllabi and textbooks do not allow us to try to go beyond talk and chalk.

Having seen students enjoying from games I tried to play in the past, I developed one game to teach students two macroeconomic concepts - savings and consumption. This is based on a game available in the internet in an online-journal (Brauer, “A Savings / Consumption Game for Introductory Macroeconomics, Classroom Expernomics, vol.3, no.2, Fall 1994). You can look at websites (www.marietta.edu/~delemeeg/games/ or www.marietta.edu/~delemeeg/expernom.html) containing many games at one place. If you spare sometime to read and attempt to play in your economics classroom, your students will find how economics is having a very strong connection with their real lives. If you develop a game on your own, you can also publish in journals. These days leading economics journals also publish games.

Teaching Savings / Consumption Today

While teaching macroeconomics theory - Keynesian Theory of Income Determination, we first introduce concepts - consumption, savings, investment, autonomous consumption etc. Then we give illustrative example of how the APC, APS, MPC, MPS can be calculated using the typical example given in the following table.

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<table>
<thead>
<tr>
<th>Income / Disposable Income</th>
<th>Planned Consumption</th>
<th>Planned Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000</td>
<td>4600</td>
<td>-600</td>
</tr>
<tr>
<td>5000</td>
<td>5300</td>
<td>-300</td>
</tr>
<tr>
<td>6000</td>
<td>6000</td>
<td>0</td>
</tr>
<tr>
<td>7000</td>
<td>6700</td>
<td>300</td>
</tr>
<tr>
<td>8000</td>
<td>7400</td>
<td>600</td>
</tr>
<tr>
<td>9000</td>
<td>8100</td>
<td>900</td>
</tr>
<tr>
<td>10000</td>
<td>8800</td>
<td>1200</td>
</tr>
<tr>
<td>11000</td>
<td>9500</td>
<td>1500</td>
</tr>
<tr>
<td>12000</td>
<td>10200</td>
<td>1800</td>
</tr>
</tbody>
</table>

We also know that numbers given in this table are hypothetical and the solution can be arrived at using simple arithmetic skills. Though students find this approach ‘easy’ and the numerical illustration of this kind give better marks in examinations, we do not allow students to understand from where these numbers come. We draw diagrams of consumption and savings functions hypothetically.

**Consumption / Savings Game**

This is a game in which the organiser / teacher give a handout (see appendix 1) to all participants and they fill in the details of expenditure they would incur if their incomes are at four levels. Though the income levels are hypothetical, we all know that many of our families earn similar incomes. Participants are expected to provide the details of their consumption on items (food, housing, transportation, medical, entertainment and education etc.). They also are expected to provide the amount they can save for each income level. Since people in India buy a lot of gold, properties and other items as part of investment, this item (savings / personal investment) was given as if they are spending as one consumption item. The game organiser / teacher collect filled handouts and estimate the average consumption and savings at a given income and estimate the consumption function and drew upward-sloping consumption and savings line diagrams. In this game, students or participants who provide the details of family consumption and savings details are expected to plan how much they can save given the level of income. Game organiser would help students how the details they provided become different values and diagrams leading to understanding of these two macroeconomic concepts –
consumption and savings and their related concepts (Average Propensity to Consume (APC), Marginal Propensity to Consume (MPC), Average Propensity to Save (APS) and Marginal Propensity to Save (MPS). This game would require not more than 40 minutes in the class and one or two hours outside the class. This game also require game organiser to know how averages can be calculated manually, using calculator or through computer excel sheets and a little bit of knowledge in working with power points and drawing diagrams using excel. Without any of these gadgets also it is possible to play this game and to enter the data, and calculate the values by working with class 12 students.

**Experiment of the Game**

In July 2013, 36 post graduate economics teachers working in Navodaya Vidyalayas attended a content enrichment course in economics organised by NCERT, New Delhi. One day prior to my session, I took 10 minutes and gave a brief introduction to the game and distributed the handout (see Appendix 1) to each teacher and requested to fill the details. I collected the filled handouts on the same day. I told them that we were going to play this game the next day. In the after-working hours, I entered the data on a excel sheets. Since it may not be possible to give the whole sheet in this chapter, the transposed details of 6 teachers as entered in excel sheet is given in Appendix 2.

The next day I went to the course venue in my session and using LCD projector, I showed them the data that I have entered in the excel sheet. Using power point presentation, I showed them the summary table in which the details of Average Savings and Average Consumption were estimated. In the usual traditional consumption/income/savings tables, more income levels are used. In this game, only four income levels are used. I asked them the formula for estimating Average Propensity to Save, Average Propensity to Consume, Marginal Propensity to Save (MPS) and Marginal Propensity to Consume (MPC) and estimated the values during the session (Appendix 3). Using the details of Average Consumption and Savings, I drew Consumption / Savings Line diagram in the excel sheet (Appendix 4). In order to see the gender differences, I estimated the levels of consumption, savings and MPS for females and males. This created debate on how and why women were not able to save when the levels of income is low.

**Conclusion**

I worked with teachers to play this game for the first time and look forward to play this game among class 12 economics students. Teachers have pointed out that the details they provided and how they form diagrams in the macroeconomics class as something new. Another comment was that it gives students an opportunity to engage themselves in understanding the concept of consumption and savings. As Brauer suggests in the original paper, there is scope to extend this game to draw Investment line, how
consumption and savings function would change if there is change in income etc. All we need is some enthusiasm to engage economics students in our teaching and we have a lot to learn in this process.

**Appendix 1: income / expenditure handout**

Consider only income column 1 (labelled in first column— Rs.12,500). Suppose that Rs.12,500 is your monthly net income that it has been so for some time, and that you expect that you will continue to receive it for some time. How would you use your money?

When finished with column 1, repeat the exercise for the other columns. Please assume that you are receiving the indicated monthly income, have been receiving it for some time, and expect to receive it for some months to come. When finished with all columns, handover the sheet to the game organiser / teacher.

<table>
<thead>
<tr>
<th>Disposable Monthly Income (after deducting / paying taxes and transfer payments)</th>
<th>Rs.12500</th>
<th>Rs.15000</th>
<th>Rs.17,500</th>
<th>Rs.20,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food / Grocery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing (rent, mortgage, etc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation (petrol/diesel, bus/train fares, taxi, auto etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment / recreation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education of family members</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Ordinary Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings / personal investments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Expenditure</strong></td>
<td><strong>Rs.12500</strong></td>
<td><strong>Rs.15000</strong></td>
<td><strong>Rs.17,500</strong></td>
<td><strong>Rs.20,000</strong></td>
</tr>
<tr>
<td>Available Savings</td>
<td>Rs.45000</td>
<td>Rs.50,000</td>
<td>Rs.55,000</td>
<td>Rs.60,000</td>
</tr>
</tbody>
</table>

**NOTE:** If you find that you cannot cover your ordinary expenses out of your monthly income, you may deplete some of your savings. For example, you would write -Rs.5000 into the savings line when you withdraw from savings and +Rs.5000 when you deposit some of your income into savings.
Appendix 2: Details of Consumption and Savings as given by the game participants

<table>
<thead>
<tr>
<th>SI.NO.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>12500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F/G</td>
<td>2000</td>
<td>7000</td>
<td>2500</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
</tr>
<tr>
<td>H</td>
<td>1000</td>
<td>2000</td>
<td>1500</td>
<td>1000</td>
<td>1000</td>
<td>0</td>
</tr>
<tr>
<td>T</td>
<td>2000</td>
<td>500</td>
<td>500</td>
<td>1500</td>
<td>1000</td>
<td>1000</td>
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<tr>
<td>M</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>En</td>
<td>2000</td>
<td>200</td>
<td>500</td>
<td>1500</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>Ed</td>
<td>2500</td>
<td>1000</td>
<td>1000</td>
<td>2000</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td>OO</td>
<td>500</td>
<td>300</td>
<td>2000</td>
<td>1000</td>
<td>1000</td>
<td>500</td>
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<tr>
<td>S/P</td>
<td>2000</td>
<td>1000</td>
<td>4000</td>
<td>1000</td>
<td>500</td>
<td>1000</td>
</tr>
</tbody>
</table>

| 15000  |       |       |       |       |       |       |
| F/G    | 2000  | 7500  | 3000  | 4000  | 6000  | 7000  |
| H      | 1000  | 2000  | 2000  | 1000  | 1000  | 0     |
| T      | 2000  | 500   | 700   | 1500  | 1200  | 1000  |
| M      | 0     | 500   | 600   | 500   | 800   | 1500  |
| En     | 2000  | 1000  | 400   | 1900  | 1300  | 1000  |
| Ed     | 2500  | 2000  | 1500  | 200   | 2500  | 2000  |
| OO     | 500   | 500   | 2000  | 1100  | 1500  | 500   |
| S/P    | 5000  | 1000  | 4800  | 4800  | 700   | 2000  |

| 17500  |       |       |       |       |       |       |
| F/G    | 2500  | 8000  | 4000  | 4000  | 6500  | 7000  |
| H      | 1000  | 3000  | 2500  | 1500  | 1200  | 0     |
| T      | 2000  | 800   | 900   | 2000  | 1800  | 1000  |
| M      | 1500  | 700   | 800   | 500   | 800   | 1500  |
| En     | 2000  | 2000  | 800   | 2000  | 1500  | 1500  |
| Ed     | 2500  | 2500  | 1500  | 2500  | 2500  | 1000  |
| OO     | 500   | 500   | 2500  | 1200  | 2000  | 1500  |
| S/P    | 5500  | 0     | 4500  | 3800  | 1200  | 4000  |
### Appendix 3: Teachers’ Average Savings and Marginal Propensity to Save

<table>
<thead>
<tr>
<th>Item</th>
<th>Income Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12500</td>
</tr>
<tr>
<td>Average Savings</td>
<td></td>
</tr>
<tr>
<td>12500</td>
<td>1169</td>
</tr>
<tr>
<td>Average Consumption</td>
<td></td>
</tr>
<tr>
<td>12500</td>
<td>11331</td>
</tr>
<tr>
<td>Δy</td>
<td></td>
</tr>
<tr>
<td>12500</td>
<td>2500</td>
</tr>
<tr>
<td>Δs</td>
<td></td>
</tr>
<tr>
<td>12500</td>
<td>-</td>
</tr>
<tr>
<td>Δc</td>
<td></td>
</tr>
<tr>
<td>12500</td>
<td>-</td>
</tr>
<tr>
<td>Average Propensity to Save</td>
<td></td>
</tr>
<tr>
<td>12500</td>
<td>0.91</td>
</tr>
<tr>
<td>Average Propensity to Consume</td>
<td>0.09</td>
</tr>
<tr>
<td>APS + APC</td>
<td></td>
</tr>
<tr>
<td>12500</td>
<td>1.00</td>
</tr>
<tr>
<td>Marginal Propensity to Save</td>
<td></td>
</tr>
<tr>
<td>12500</td>
<td>-</td>
</tr>
<tr>
<td>Marginal Propensity to Consume</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes: F/G – Food/ Grocery; H – Housing; T – Transportation; M – Medical Expenses; En – Entertainment / Recreation; Ed – Education; OO – Other Expenses; S/P – Savings / Personal Investments.
### Appendix 4: Graphical Presentation of Savings and Consumption Functions

![Graph of Savings and Consumption Functions](image)

### Appendix 5: Savings and Marginal Propensity to Save by Gender

<table>
<thead>
<tr>
<th>Details</th>
<th>12500</th>
<th>15000</th>
<th>17500</th>
<th>20000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Savings – Males</td>
<td>1586</td>
<td>2316</td>
<td>2537</td>
<td>3001</td>
</tr>
<tr>
<td>Average Savings - Females</td>
<td>-288</td>
<td>188</td>
<td>313</td>
<td>1438</td>
</tr>
<tr>
<td>Marginal Propensity to Save (Females)</td>
<td>n/a</td>
<td>0.81</td>
<td>0.95</td>
<td>0.55</td>
</tr>
<tr>
<td>Marginal Propensity to Save (Males)</td>
<td>n/a</td>
<td>0.71</td>
<td>0.91</td>
<td>0.81</td>
</tr>
</tbody>
</table>
KEY TO BUDGET DOCUMENTS
BUDGET 2014-2015

A brief description of the Budget documents presented to Parliament comprise, besides the Finance Minister’s Budget Speech are given below.

(A) Annual Financial Statement (AFS).

The document as provided under Article 112, shows estimated receipts and expenditure of the Government of India for 2014-15 in relation to estimates for 2013-14 as also expenditure for the year 2012-13. The receipts and disbursements are shown under the three parts, in which Government Accounts are kept viz., (i) Consolidated Fund, (ii) Contingency Fund and (iii) Public Account.

Under the Constitution, Annual Financial Statement distinguishes expenditure on revenue account from other expenditure. Government Budget, therefore, comprises Revenue Budget and Capital Budget. The estimates of receipts and expenditure included in the Annual Financial Statement are for the expenditure net of refunds and recoveries, as will be reflected in the accounts. The significance of the Consolidated Fund, the Contingency Fund and the Public Account as well as the distinguishing features of Revenue and Capital Budget are given briefly below.

(i) The existence of the Consolidated Fund of India (CFI) flows from Article 266 of the Constitution. All revenues received by Government, loans raised by it, and also its receipts from recoveries of loans granted by it form the Consolidated Fund. All expenditure of Government is incurred from the Consolidated Fund of India and no amount can be drawn from the Consolidated Fund without authorisation from Parliament.

(ii) Article 267 of the Constitution authorises the Contingency Fund of India which is an imprest placed at the disposal of the President of India to facilitate Government to meet urgent unforeseen expenditure pending authorization from Parliament. Parliamentary approval for such unforeseen expenditure is obtained, post-facto, and an equivalent amount is drawn from the Consolidated Fund to recoup the Contingency Fund. The corpus of the Contingency Fund as authorized by Parliament presently stands at 500 crore.

(iii) Moneys held by Government in Trust as in the case of Provident Funds, Small Savings collections, income of Government set apart for expenditure on specific objects like road development, primary education, Reserve/Special Funds etc. are kept in the Public Account. Public Account funds do not belong to Government and have to be
finally paid back to the persons and authorities who deposited them. Parliamentary authorisation for such payments is, therefore, not required, except where amounts are withdrawn from the Consolidated Fund with the approval of Parliament and kept in the Public Account for expenditure on specific objects, in which case, the actual expenditure on the specific object is again submitted for vote of Parliament for drawal from the Public Account for incurring expenditure on the specific object.

(iv) Revenue Budget consists of the revenue receipts of Government (tax revenues and other revenues) and the expenditure met from these revenues. Tax revenues comprise proceeds of taxes and other duties levied by the Union. The estimates of revenue receipts shown in the Annual Financial Statement take into account the effect of various taxation proposals made in the Finance Bill. Other receipts of Government mainly consist of interest and dividend on investments made by Government, fees, and other receipts for services rendered by Government. Revenue expenditure is for the normal running of Government departments and various services, interest payments on debt, subsidies, etc. Broadly, the expenditure which does not result in creation of assets for Government of India is treated as revenue expenditure. All grants given to State Governments/Union Territories and other parties are also treated as revenue expenditure even though some of the grants may be used for creation of assets.

(v) Capital Budget consists of capital receipts and capital payments. The capital receipts are loans raised by Government from public, called market loans, borrowings by Government from Reserve Bank and other parties through sale of Treasury Bills, loans received from foreign Governments and bodies, disinvestment receipts and recoveries of loans from State and Union Territory Governments and other parties. Capital payments consist of capital expenditure on acquisition of assets like land, buildings, machinery, equipment, as also investments in shares, etc., and loans and advances granted by Central Government to State and Union Territory Governments, Government companies, Corporations and other parties.

(vi) Accounting Classification

- The estimates of receipts and disbursements in the Annual Financial Statement and of expenditure in the Demands for Grants are shown according to the accounting classification prescribed under Article 150 of the Constitution, which enables Parliament and the public to make a meaningful analysis of allocation of resources and purposes of Government expenditure.

- The Annual Financial Statement shows separately, certain disbursements as charged on the Consolidated Fund of India, where the Constitution mandates such items of expenditure, like emoluments of the President, salaries and allowances of the Chairman and the Deputy Chairman of the Rajya Sabha and the Speaker and the Deputy Speaker of the Lok Sabha, salaries, allowances and pensions of Judges of the Supreme Court,
Comptroller and Auditor-General of India and the Central Vigilance Commission, interest on and repayment of loans raised by Government and payments made to satisfy decrees of courts etc. These items of expenditure are charged on the Consolidated Fund of India and are not required to be voted by the Lok Sabha.

(B) Demands for Grants

(i) Article 113 of the Constitution mandates that the estimates of expenditure from the Consolidated Fund of India included in the Annual Financial Statement and required to be voted by the Lok Sabha are submitted in the form of Demands for Grants. The Demands for Grants are presented to the Lok Sabha along with the Annual Financial Statement. Each Demand first gives the totals of ‘voted’ and ‘charged’ expenditure as also the ‘revenue’ and ‘capital’ expenditure included in the Demand separately, and also the grand total of the amount of expenditure for which the Demand is presented. This is followed by the estimates of expenditure under different major heads of account. The breakup of the expenditure under each major head between ‘Plan’ and ‘Non-Plan’ is also given. The amounts of recoveries taken in reduction of expenditure in the accounts are also shown.

(ii) Each Demand normally includes the total provisions required for a service, that is, provisions on account of revenue expenditure, capital expenditure, grants to State and Union Territory Governments and also loans and advances relating to the service. Where the provision for a service is entirely for expenditure charged on the Consolidated Fund of India, for example, interest payments, a separate Appropriation, as distinct from a Demand, is presented for that expenditure and it is not required to be voted by Lok Sabha. Where, however, expenditure on a service includes both ‘voted’ and ‘charged’ items of expenditure, the latter are also included in the Demand presented for that service but the ‘voted’ and ‘charged’ provisions are shown separately in that Demand.

(C) Appropriation Bill

Under Article 114(3) of the Constitution, no amount can be withdrawn from the Consolidated Fund without the enactment of such a law by Parliament. After the Demands for Grants are voted by the Lok Sabha, Parliament’s approval to the withdrawal from the Consolidated Fund of the amounts so voted and of the amount required to meet the expenditure charged on the Consolidated Fund is sought through the Appropriation Bill.

The whole process beginning with the presentation of the Budget and ending with discussions and voting on the Demands for Grants requires sufficiently long time. The Lok Sabha is, therefore, empowered by the Constitution to make any grant in advance in respect of the estimated expenditure for a part of the financial year pending completion of procedure for the voting of the Demands. The purpose of the ‘Vote on
Account’ is to keep Government functioning, pending voting of ‘final supply’. The Vote on Account is obtained from Parliament through an Appropriation (Vote on Account) Bill.

(D) Finance Bill
At the time of presentation of the Annual Financial Statement before Parliament, a Finance Bill is also presented in fulfilment of the requirement of Article 110 (1)(a) of the Constitution, detailing the imposition, abolition, remission, alteration or regulation of taxes proposed in the Budget. A Finance Bill is a Money Bill as defined in Article 110 of the Constitution. It is accompanied by a Memorandum explaining the provisions included in it.

(E) Memorandum Explaining the Provisions in the Finance Bill
To facilitate understanding of the taxation proposals contained in the Finance Bill, the provisions and their implications are explained in the document titled Memorandum Explaining the Provisions of the Finance Bill.

(F) Macro-economic Framework Statement
The Macro-economic Framework Statement, presented to Parliament under Section 3(5) of the Fiscal Responsibility and Budget Management Act, 2003 and the rules made there under contains an assessment of the growth prospects of the economy with specific underlying assumptions. It contains assessment regarding the GDP growth rate, fiscal balance of the Central Government and the external sector balance of the economy.

(G) Fiscal Policy Strategy Statement
The Fiscal Policy Strategy Statement, presented to Parliament under Section 3(4) of the Fiscal Responsibility and Budget Management Act, 2003, outlines the strategic priorities of Government in the fiscal area for the ensuing financial year relating to taxation, expenditure, lending and investments, administered pricing, borrowings and guarantees. The Statement explains how the current policies are in conformity with sound fiscal management principles and gives the rationale for any major deviation in key fiscal measures.

(H) Medium-term Fiscal Policy Statement
The Medium-term Fiscal Policy Statement, presented to Parliament under Section 3(2) of the Fiscal Responsibility and Budget Management Act, 2003, sets out three-year rolling targets for four specific fiscal indicators in relation to GDP at market prices namely (i) Revenue Deficit, (ii) Fiscal Deficit, (iii) Tax to GDP ratio and (iv) Total outstanding Debt at the end of the year. The Statement includes the underlying assumptions, an assessment of sustainability relating to balance between revenue receipts and revenue expenditure and the use of capital receipts including market borrowings for generation of productive assets.
(I) Medium-term Expenditure Framework Statement

The Medium-term Expenditure Framework Statement, presented to Parliament under Section 3 of the Fiscal Responsibility and Budget Management Act, 2003 sets forth a three-year rolling target for the expenditure indicators with specification of underlying assumptions and risks involved. The objective of the MTEF is to provide a closer integration between budget and the FRBM Statements.

This Statement is presented separately in the session next to the session in which Budget is presented, i.e. normally in the Monsoon Session.

(J) Receipts Budget

Estimates of receipts included in the Annual Financial Statement are further analysed in the document “Receipts Budget”. The document provides details of tax and non-tax revenue receipts and capital receipts and explains the estimates. The document also provides the arrears of tax revenues and non-tax revenues, as mandated under the Fiscal Responsibility and Budget Management Rules, 2004. Trend of receipts and expenditure along with deficit indicators, statement pertaining to National Small Savings Fund (NSSF), statement of revenues foregone, statement of liabilities, statement of guarantees given by the government, statements of assets and details of external assistance are also included in Receipts Budget.

(K) Budget at a Glance

(i) This document shows in brief, receipts and disbursements along with broad details of tax revenues and other receipts. This document also exhibits broad break-up of expenditure - Plan and Non-Plan, allocation of Plan outlays by sectors as well as by Ministries/ Departments and details of resources transferred by the Central Government to State and Union Territory Governments. This document also shows the revenue deficit, the gross primary deficit and the gross fiscal deficit of the Central Government. The excess of Government’s revenue expenditure over revenue receipts constitutes revenue deficit of Government. The difference between the total expenditure of Government by way of revenue, capital and loans net of repayments on the one hand and revenue receipts of Government and capital receipts which are not in the nature of borrowing but which finally accrue to Government on the other, constitutes gross fiscal deficit. Gross primary deficit is measured by gross fiscal deficit reduced by gross interest payments. In the Budget documents ‘gross fiscal deficit’ and ‘gross primary deficit’ have been referred to in abbreviated form ‘fiscal deficit’ and ‘primary deficit’, respectively. This document also shows liabilities of the Government on account of securities (bonds) issued in lieu of oil and fertilizer subsidies.

(ii) The document also includes a statement indicating the quantum and nature (share in Central Taxes, grants/loan) of the total Resources transferred to States and Union
Territory Governments. Details of these transfers by way of share of taxes, grants-in-aid and loans are given in Expenditure Budget Volume 1. Bulk of grants and loans are disbursed by the Ministry of Finance and are included in the Demand ‘Transfers to State and Union Territory Governments’. The grants and loans released to States and Union Territories by other Ministries/Departments are provided for in their respective Demands.

(L) Detailed Demands for Grants
The Detailed Demands for Grants are laid on the table of the Lok Sabha sometime after the presentation of the Budget, but before the discussion on Demands for Grants commences. Detailed Demands for Grants further elaborate the provisions included in the Demands for Grants as also actual expenditure during the previous year. A break-up of the estimates relating to each programme/organisation, wherever the amount involved is not less than `10 lakhs, is given under a number of object heads which indicate the categories and nature of expenditure incurred on that programme, like salaries, wages, travel expenses, machinery and equipment, grants-in-aid, etc. At the end of these Detailed Demands are shown the details of recoveries taken in reduction of expenditure in the accounts.

(M) Outcome Budget
(i) With effect from Financial Year 2007-08, the Performance Budget and the Outcome Budget hitherto presented to Parliament separately by Ministries/Departments, are merged and presented as a single document titled “Outcome Budget” by each Ministry/Department in respect of all Demands/ Appropriations controlled by them, except those exempted from this requirement. Outcome Budget broadly indicates physical dimensions of the financial budget of a Ministry/Department, indicating actual physical performance in the preceding year (2012-2013), performance in the first nine months (up to December) of the current year (2013-2014) and the targeted performance during the ensuing year (2014-2015).

(ii) Outcome Budget contains a brief introductory note on the organization and function of the Ministry/Department, list of major programmes/schemes implemented by the Ministry/ Department, its mandate, goal and policy framework, budget estimates, scheme-wise analysis of physical performance and linkage between financial outlays and outcome, review covering overall trends in expenditure vis-a-vis budget estimates in recent years, review of performance of statutory and autonomous bodies under the administrative control of the Ministry/Department, reform measures, targets and achievements and plan for future refinements.

(iii) As far as feasible, coverage of women and SC/ST beneficiaries under various developmental schemes and schemes for the benefit of North Eastern Region are also separately indicated.
GOVERNMENT BUDGET & THE ECONOMY

Budget is the annual estimates of Income & Expenditure over the Fiscal Year, which normally starts from 1st April and ends on 31st March every year. The budget is prepared at every level of Government for the fiscal year through which the government meets its expenditure.

Tiers of Government

Central Government  State Government  Local Government

Types of Budget

1. **Balanced Budget**: When the government receipts are equals to the government budget is known as balanced budget.

2. **Surplus Budget**: When the government receipts are more than its expenditure is known as surplus budget.

3. **Deficit Budget**: When the government receipts are less than its expenditure is known as deficit budget.

Objective of Govt. Budget

1. Re allocation of Resources
2. Redistribution of income & wealth
3. Economic Stability
4. Management of Public undertaking

Component of Government Budget

Two Component of Government Budget

1. **Revenue Budget**

2. **Capital Budget**

Receipts

1. **Revenue Receipt**

Neither Create liability Nor Reduces Assets
a) **Tax Receipts**: Taxes are the compulsory payment made to the government, failing which is a punishable offence. Ex. Income Tax & Wealth Tax

b) **Non Tax Receipts**: All the revenue receipts other than tax receipt. Ex. Fee, Fine.

2. **Capital Receipt**

   **Either Create liability or Reduces Assets**

   a) **Recoveries of Loans or Borrowings**: When the government took loans from the public or other financial institutions is called Borrowings. i.e., Selling of National Savings Certificates.

   b) **Disinvestment**: When the government generate income by selling the national properties it is called disinvestment by the government. Selling of Nav-Rattan by the government.

**Expenditure**

i) **Revenue Expenditure**: Which does not create any liability or reduces any assets of the government. It is incurred for the normal running of the government. It is recurring in nature. It is short period expenditure also. Such as administration, provisions of various services, interest payments. In other words, any expenditure of the government, which does not results in creation of any physical assets is treated as Revenue Expenditure.

ii) **Capital Expenditure**: Capital expenditure either creates liability or increases assets of the government. It is non-recurring in nature. It is long period expenditure. It is incurred by the government for the acquisition of land, buildings, machinery and equipment or investment in shares etc. In other words, any expenditure of the government, which results in creation of physical assets, is treated as Capital Expenditure.

iii) **Plan Expenditure**: Any expenditure of the government incurred on programmes which are mentioned under current Five Year plan of the centre or centre’s advance to the states for their plans is called planned expenditure.

iv) **Non Plan Expenditure**: Any expenditure of the government incurred on routine functioning or other than plan expenditure is called non-planned expenditure.

**Tax**

**Types of Taxes**

a) **Direct Tax**: A direct tax is a tax where the burden lies on the same person on whom it was levied. It cannot be shifted to others.
b) **Indirect Tax:** When the liability to pay tax is borne by some other person & not by that person on whom it was levied. It is called indirect tax. It means the burden of tax can be shifted completely or partially to some other person. It is called Indirect Tax.

### Types of Budget Deficits

<table>
<thead>
<tr>
<th>Revenue Deficit</th>
<th>Total Revenue Expenditure – Total Revenue Receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal Deficit</td>
<td>Total Expenditure – Total Receipts (excluding borrowing) = Borrowing</td>
</tr>
<tr>
<td>Primary Deficit</td>
<td>Fiscal Deficit – Interest Payments</td>
</tr>
</tbody>
</table>

### MCQs

(Multiple Choices Question Answer)

**Q.1 Which of the following is an Indirect Tax?**


**Q.2 Which of the following is a Direct Tax?**

i) Sales Tax  ii) Income Tax  iii) Value Added Tax  iv) Entertainment Tax

**Q.3 Which of the following is a Revenue Receipt?**

i) Loan from the IMF  
 ii) Grant Received from the world Bank  
 iii) Borrowing from the Public  
 iv) Sale of the shares held by the government in HMT

**Q.4 Which of the following is a Capital Receipt?**

i) Profit Tax  
 ii) Railway Ticket Fare  
 iii) Fee of the Government Hospital  
 iv) Borrowing from the public

**Q.5 Pick the Odd one out from the following**

i) Borrowing from the public  
 ii) Borrowing from the International Financial Organisations  
 iii) Borrowing from the RBI  
 iv) Recovery of Loans
Q.6 Which of the following is not Capital Expenditure:
   i) Salary paid to the government employees
   ii) Purchase of a machine from Korea
   iii) Repayment of loan taken from the IMF
   iv) Interest paid on National Debt

Q.7 Which one of the following is not the form of Tax Revenue?
   i) Income Tax
   ii) Sales Tax
   iii) License Fee
   iv) Excise Duty

Q.8 Identify the Revenue Expenditure
   i) Subsidies
   ii) Loan given to the State Government
   iii) Repayment of loans
   iv) Construction of a school building

Q.9 Identify the Capital Receipts
   i) Penalty
   ii) Corporation Tax
   iii) Dividends on Investments made by the government
   iv) Sale of a Public Sector Undertaking

ANSWER KEY
   1 – ii
   2 – ii
   3 – iii
   4 – iv
   5 – iv
   6 – i
   7 – iii
   8 – i
   9 – iv
Money & Functions of Money

Money

Money is what money does. In other words money is something which is generally acceptable as a medium of exchange, has the legal power & able to discharge debt.

Fiat Money

Fiat money refers to the money which is backed by the authority of the government.

Fiduciary Money

Fiduciary Money is the money which backed by the mutual consent of the payer and the payee.

Credit Money

Credit money is the money whose money value is more than the commodity value.

Money Supply

Money supply refers to the total stock of money available in the economy at a point of time.

Demand Deposits

Demand deposits are those deposits which can be withdrawn any time by the depositor or by writing a cheque.

Time Deposit /Term Deposit

They are deposited for a fixed period of time. Time deposits are those deposits which cannot be withdrawn before the stipulated period for which they have been deposited.

Components of Money Supply.

The following are the components of Money Supply;

i) Currency held by the public
ii) Demand deposits of the public with the commercial banks
iii) Other deposits with the RBI
Measures of Money Supply in India.

There are four measures of Money supply in India, popularly, known as M1, M2, M3 and M4.

\[
\begin{align*}
M1 &= CC + DD + OD \\
M2 &= M1 + \text{Deposits with the post office saving bank account} \\
M3 &= M1 + \text{Net time deposits with the commercial banks} \\
M4 &= M3 + \text{Total deposits with the post office (other than NSC)}
\end{align*}
\]

MCQs (Multiple Choice Questions)

Q.1 Which one of the following is the difference between Narrow Money & Broad Money?
   i) DD     ii) TD     iii) Post Office Deposits     iv) OD

(Hint: M1 and M3 is Narrow Money Others are Broad Money)

Q.2 Which one of the following is not the function of Money.
   i) Medium of exchange
   ii) Store of value
   iii) Allocation of Resources
   iv) Money as a unit of Measurement

Q.3 Which of the following Banks/Institution acts as custodian of nation's foreign exchange reserve.
   i) State Bank of India
   ii) Reserve Bank of India
   iii) IFCI
   iv) Punjab National Bank

Q.4 Which of the following is a quantitative measure to control money supply in the country?
   i) Moral Suaision     ii) Margin Requirement     iii) Bank Rate
   iv) Rationing of Credit

Q.5 Pick up the odd one
   i) Bank Rate     ii) CRR     iii) Open Market Operation
   iv) Moral Suaision
Q.6 Which among the following is not the Legal Tender Money?
   i) Coin   ii) Paper Notes   iii) Cheques
   iv) Account Payables/Promissory Notes

**ANSWER KEY**

**Money & Banking**

Q.1 iii
Q.2 ii
Q.3 iii
Q.4 iv
Q.5 iii
Q.6 iv
USE OF WORKSHEETS IN TEACHING OF ECONOMICS

A CRUCIAL question in the minds of the students of economics is regarding the utility of the subjects in terms of day to day life.

Why are we studying economics? How will it help us? What is the use other than sitting for the paper?

The present section gives an insight as to what other than that can be done with the pupil to make the course material interesting as well as cater to their curiosity regarding application of the syllabus. The following worksheets also give practice in terms of the Open Text Book Assessment (OTBA) students need to read and relate with the text before answering the questions. Through the sample worksheets are primarily from newspaper articles; media-like magazines, journal, internet, etc. can also be used in their places. The basic idea is to make learning process more interesting and activity-based. The students should be encouraged to read newspaper daily and such activity will help them comprehend what they are reading easily.

Worksheet-1

NEW DELHI: Agriculture sector under the new government will see implementation of some innovative ideas which may not only increase farm production through use of technology but also by reclaiming 'non-cultivable land' in scientific manner under a National Policy.

This along with other measures, including increasing investment in Agri-infrastructure — like setting up specialized Agri-Rail networks for perishable farm products, launching massive irrigation projects at village level and inter-linking of rivers, if feasible, for irrigation — and taking steps to promote "scientific practices" and Agro-technology, will be among the top priority of the Narendra Modi Government.

"My Government will adopt a National Land Use Policy which will facilitate scientific identification of non-cultivable land and its strategic development", said the President Pranab Mukherjee on Monday while addressing first joint sitting of the Parliament after general elections.

Answer the following Questions:

1. How will investment in agricultural sector help the economy?
2. What innovative ideas is the article talking about?
3. What is meant by agri – infrastructure?
NEW DELHI: Following are the Highlights of RBI bi-monthly Monetary Policy Statement:

* Short-term lending (Repo) rate unchanged at 8%
* Cash reserve ratio (CRR) unchanged at 4%
* SLR cut by 50 bps to 22.5% to unlock banking funds
* Expect economic growth for 2014-15 to be between 5-6%
* Further policy tightening will not be warranted if inflation continues to decline
* Reiterates CPI inflation target of 8% by January 2015, 6% by 2016
* Decisive election results should help bring in gradual recovery of growth
* Farm sector outlook clouded by forecast of delay in monsoon
* Export credit refinance facility cut to 32% from 50%
* FPIs allowed in currency derivative market
* Indians as well as non-residents can carry up to Rs 25,000 while leaving country
* This facility not valid for citizens of Pakistan and Bangladesh
* Next bi-monthly policy statement on August 5

*Hikes eligibility limit for forex remittances to USD 1,25,000, from USD 75,000 at present.

Answer the following:

1. Which monetary policies are mentioned in the above article?
2. What do you mean by policy tightening? When is it required?
3. Why would election results affect growth?
India plans to raise the price of urea, the fertiliser most used by its farmers, by at least 10% in order to contain subsidy costs that are straining the budget, government and industry officials told Reuters.

The first major price hike in four years would mark an important step by Prime Minister Narendra Modi’s new government to cut wasteful use of urea and ease fiscal pressures resulting from a weak economy.

"A two to three percent rise in urea prices won't make any meaningful difference in subsidy allocation. We are pitching for at least a 10 percent hike," said one government official who requested anonymity because he was not authorised to speak to the media.

The proposal has the support of Fertilisers Minister Ananth Kumar, sources said. He has asked officials to prepare measures to implement it to either go before the cabinet or be included in Finance Minister Arun Jaitley’s first budget in early July.

Sector stocks jumped on the news, with Chambal Fertilisers and Chemicals gaining 6.6% and Tata Chemicals climbing as much as 2.6% in early trading in Mumbai.

Fertiliser subsidy costs have quadrupled over the past decade as the previous government kept urea prices below the cost of production, fearing a backlash from the influential farm lobby.

A proposed doubling of natural gas prices is now expected to force the government's hand. Gas accounts for four-fifths of the cost of making urea, a nitrogenous fertiliser that consumes more than half of India’s $11 billion annual fertiliser subsidy bill.

"The gas price rise is making the urea price hike a compulsion. The government has no choice. We are expecting a decision before the budget or in the budget," said a senior official with a state-run fertilizer company.

India last year approved a hefty rise in gas prices to more than $8 per million British thermal units in a bid to boost returns for local energy producers, spur investment and ease acute power shortages. Modi will have the final say on a proposal to implement the natural gas price hike from July 1. The gas price increase was put on hold during India’s recent election, which Modi’s Bharatiya Janata Party (BJP) won by a landslide.

Read and Answer:

1. Which subsidy is being talked about?
2. Which type of deficit is affected by it?
3. What are the reasons cited by the Govt. to reduce subsidy?
4. What other measures in your opinion can the Govt. take to reduce deficits in budget?
NEW DELHI: The Government plans to transform the moribund Employment Exchanges into Career Centres that will not just help the youth scout for jobs but also offer counseling and training services and step up the skill development drive as it embarks on a massive job-generating journey.

While creating jobs has emerged as the central focus of the government's growth drive, the Narendra Modi administration has also recognized the gaps in the current system that it is trying to fix in order to ensure that the 10 million youth joining the workforce do not get disillusioned in the absence of work.

"For rapid creation of jobs in the manufacturing sector, the government will strategically promote labour-intensive manufacturing. Employment opportunities will also be expanded by promoting tourism and agro-based industries," president Pranab Mukherjee, said while addressing the joint sitting of Parliament.

Read the above and Answer the following-

1. How does the Government plan to create jobs in the economy?
2. What are the 'gaps in the current system' which need to be fixed?
3. Why is the Government promoting labour intensive manufacturing?
1. Solving the Rupee Riddle

It is interesting to note that many aspects of our day to day life is filled by the economic activities and Government decisions affect every sector including common man. In the recent past when the rupee value was declining sharply everyone got panicky ,those who understood economics and currency and those who did not have a single clue as to what is going on . Everyone knows that fall or rise in rupee value against dollar will affect economy at domestic level and global both.

How rupee volatility affects your budget ?

Why falling rupee is good for investors ?

Everyone uses money. Shops accept currency notes and coins, but they also accept credit cards. Is credit card money?

Money is the value assigned to a commodity; a piece of paper, a coin or electronic data .It can be of different types-commodity money, representative money, fiat money and commercial bank money. Gold coins, cocoa beans, cattle or anything that has a value of its own and is used as a medium of exchange is commodity money. The use of commodity money is similar to barter, except that the commodity used is widely accepted and can be easily handled.

Representative money is token coins and notes that can be exchanged for a fixed amount of precious metals or other commodities. In contrast, fiat money's value is imposed by the government, which makes refusal of payments made in the notified legal tender, in the form of currency notes and coins, illegal. Instruments such as cheques, demand drafts and banker's drafts are commercial bank money.

Money is not an organic creature but its value keeps changing with the society and its economic conditions. One rupee in 1947 is not the same as one rupee today, both in terms of appearance and purchasing power.

The value of currency is linked with the economic conditions and policies.
The value of a currency depends on factors that affect the economy such as trade, inflation, employment, interest rates, growth rate and geopolitical conditions.

"The value of a currency depends on factors that affect the economy such as imports and exports, inflation, employment, interest rates, growth rate, trade deficit, performance of equity markets, foreign exchange reserves, macroeconomic policies, foreign investment inflows, banking capital, commodity prices and geopolitical conditions,"

Income levels influence currencies through consumer spending. When incomes increase, people spend more. Higher demand for imported goods increases demand for foreign currencies and, thus, weakens the local currency.

Balance of payments, which comprises trade balance (net inflow/outflow of money) and flow of capital, also affects the value of a country's currency.

"A country that sells more goods and services in overseas markets than it buys from them has a trade surplus. This means more foreign currency comes into the country than what is paid for imports. This strengthens the local currency,"

Another factor is the difference in interest rates between countries. Let us consider the recent RBI move to deregulate interest rates on savings deposits and fixed deposits held by non-resident Indians (NRIs). The move was part of a series of steps to stem the fall in the rupee.

By allowing banks to increase rates on NRI rupee accounts and bring them on a par with domestic term deposit rates, the RBI expects fund inflows from NRIs, triggering a rise in demand for rupees and an increase in the value of the local currency.

The RBI manages the value of the rupee with several tools, which involve controlling its supply in the market and, thus, making it cheap or expensive.

"Some ways through which the RBI controls the movement of the rupee are changes in interest rates, relaxation or tightening of rules for fund flows, tweaking the cash reserve ratio (the proportion of money banks have to keep with the central bank) and selling or buying dollars in the open market,"

The RBI also fixes the statutory liquidity ratio, that is, the proportion of money banks have to invest in Government Bonds, and the repo rate, at which it lends to banks. While an increase in interest rates makes a currency expensive, changes in cash reserve and statutory liquidity ratios increase or decrease the quantity of money available, impacting its value.
Inflationary Pressure

Every generation complains about price rise. Prices shoot up when goods and services are scarce or money is in excess supply. If prices increase, it means the value of the currency has eroded and its purchasing power has fallen.

Let us say the central bank of a country increases money flow in the economy by 5 per cent while economic growth is 4 per cent. The difference causes inflation. If the growth in money supply is 10 per cent, inflation will surge because of the mismatch between economic growth and money supply.

In such a scenario, loan repayments will be a lesser burden

If interest rates are fixed, as you will pay the same amount but with a lower valuation.

A fall in purchasing power due to inflation reduces consumption, hurting industries. Imports also become costlier. Exporters, of course, earn more in terms of local currency.

However, if the increase in money supply lags economic growth, the economy will face deflation, or negative inflation. The purchasing power of money will increase when the economy enters the deflationary state. If you think deflation will help you consume more and enjoy life more, you are wrong.

Unless the fall in prices of goods is because of improved production efficiencies, you will have less money to spend. If you have a fixed-interest loan to repay, your debt will have a higher valuation. Yields from fixed-income investments made before deflation set in will, of course, increase in value.

A fantasy world where trees have banknotes and bear coins instead of fruits might sound like a dream come true. Economists will be the devil's messenger in that world when they break the news that your money is as good as dry leaves.

Money is printed by governments, but they cannot print all the money they need. When a government prints money to meet its needs without the economy growing at the same pace, the result can be catastrophic.

Zimbabwe is a recent example.

In the past, governments used to back their currencies with gold reserves or a foreign currency such as the US dollar that could be converted into gold on demand. The gold standard currency system was abandoned as there was not enough gold to issue money and currency valuations fluctuated with the supply and demand of gold.
In the modern economy, governments print money based on their assessment of future economic growth and demand. The purchasing power of the currency remains constant if the increase in money supply is equal to the rise in gross domestic product and other factors influencing the currency remain unchanged.

Though international trade and movement of people is increasing rapidly, there is no currency that is acceptable across the globe. Whether you go for higher studies to the US or fly to Rio for a vacation, you have to pay for services and goods in the currency that is accepted in the country. Even while shopping online on stores run by foreign companies, you have to pay in foreign exchange.

**The Foreign Exchange Rate for conversion of currencies depends on the market scenario and the exchange rate being followed by the countries.** Floating exchange rates, or flexible exchange rates, are determined by market forces without active intervention of central governments. For instance, due to heavy imports, the supply of the rupee may go up and its value fall. In contrast, when exports increase and dollar inflows are high, the rupee strengthens.

**Earlier, most countries had fixed exchange rates. This system has been abandoned by most countries due to risk of devaluation of currencies owing to active government intervention.** Most countries now adopt a mixed system of exchange rates where central banks intervene in the market to buy or sell the different currencies to control the movement of their own currencies.

Now that we know the factors that determine the value of a currency, how does the rupee in your bank account and purse stand at present?

"The recent fall in the rupee was mainly due to conditions in the euro zone, plunging stock markets, falling foreign investment inflows and strengthening of the dollar," "Rising fiscal deficit and untameable inflation were behind the fall in the rupee. As India runs a large current account deficit, it needs a constant inflow of dollars, which was not there. High oil prices inflated the import bill and resulted in further widening of the current account deficit, which accelerated the rupee fall,"

"The decision by the government to allow foreign investors to directly invest in Indian equity could bring some capital flows and have a positive impact on the economy and the rupee..The rupee has recovered somewhat in January."
For Teachers to Reflect

Discuss and debate in classroom, when we explained above that The value of currency is linked with the Economic conditions and Policies. Ask students to collect newspaper cuttings /clippings of recent 3-5 months and help them to trace the changes in economy and how the change in Government and policies have affected the various sectors of economy. What will be the probable impact in domestic and global market. This will be interesting as students will develop the habit of reading the information and will be able to connect the theoretical text with what is actually happening in the economy. You may also extend this to the impact on exports and imports .The budget may be discussed which has a true reflection of Government policies and strategies.

2. What is Green GNP?

There is lot of curiosity amongst teachers and students of Economics lately on the aspect of taking the environment in to account. In the past decade all countries are taking measures to use and preserve the natural resources. Due precautions are being taken world over to curb the levels of pollution which is disturbing the ecological balance. In most of the countries across the world, GNP is still considered as one of the most important measure of economic activity. It serves as the important yardstick of measuring and comparing economic growth of any nation.

Despite this GNP fails to provide clues to an economy’s long term potential and leaves out many crucial factors to effectively measure the full economic wellbeing of nation and its people.

The World Commission on Environment has warned all countries to take it full account (while measuring GNP) the deterioration in the stock of natural resources.

Many European Countries now do this by supplementing GNP with some form of Natural Resource Accounting to monitor the impact of GNP and economic activities on environment.

There is a Newspaper clipping on the same given below. Read it out in the classroom and discuss and debate on the various aspects on GNP and what impact it will have when Natural Resource Accounting is added. It will invoke many queries and reflections .Guide them to explore and enrich themselves on this issue.
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With the Green GNP elaborating upon the missed environment aspect, it will serve as a more effective measure of an Economy.
PRESENT SCENARIO OF INDIAN ECONOMY

- Fuel, Fertilizer & food subsidies are high as they are not targeted only the poor. Suffer from High leakage
- High Fiscal Deficit forces government to borrow more from market, reduces room for RBI to lower Interest rate
- Growth in taxes sluggish due to economic slow down
- Several businessman, self employed professionals, remain out of tax net or under report income affecting tax mop up
- High Inflation and high interest rates hit investment growth
- "India's high budget deficits are partly due to a large population and low per capita income levels. Low income levels limit the government's tax revenue base and at the same time drive socio-political pressure to increase government spending on subsidies and economic development"
- As one of the biggest importers, India is vulnerable to oil shocks. Surging crude prices have raised fears of a crisis similar to ones in 2003 & 1991.

How to put the Indian Economy back on track?

The World Bank ranks India a miserable 134th out of 189 countries on its ease of doing business index, which measures the difficulties faced starting a company, dealing with construction permits and other factors behind competitors like China or Indonesia. Without a boost to investment, the economy will continue to stagger. That means Modi will have to strip out red tape and streamline bureaucratic procedures to make it less burdensome for companies to invest and create jobs. On top of that, Modi will have to speed along improvements in the country’s strained infrastructure — from roads to ports to power — to bring down the costs and enhancing the efficiency of doing business.

The World Bank projected **India's growth at 5.5 per cent** in fiscal 2014-15, accelerating to 6.3 per cent in 2015-16 and 6.6 per cent in 2016-17 as it urged developing countries to double down on domestic reforms.

The World Bank, however, cautioned that forecasts assume that reforms are undertaken to ease supply-side constraints (particularly in energy and infrastructure) and to improve labour productivity, fiscal consolidation continues, and a credible monetary policy stance is maintained.

Accelerating Job creation:

First, and foremost, create jobs. The only way to do that would be to give primacy to manufacturing. Restore the manufacturing sector's contribution to GDP from 17% to 22%. China has 46%, Malaysia 40%, Indonesia 46% and India 17%. Can India's billion-plus people tolerate that? It is expected this government to do is set right manufacturing first.
People are not looking for freebies, they are looking for jobs. They want an honourable existence. That's why the freebies didn't work in the last elections.

As quoted by AM Naik Chairman of Infrastructure giant L & T ,”If we import raw material, it adds value to the nation. But if we bring Readymade TV, Readymade cars, then, What jobs are we creating in India”

**We are exporting jobs, not creating jobs within the country**

**To create job is to give primacy to manufacturing.**

Focus on Labour intensive sectors like Textiles, Leather, Food Processing etc. To revive manufacturing

**Increase the Efficiency of PSUs:** The government can improve efficiency, productivity and save money instead of pumping money to save losses. And let PSUs become worthy of competing with private sector. All public sector companies have to rise to the occasion to become efficient. Then we will have economic growth.

One avenue that the government has to raise money is to dilute public sector, which has very valuable companies like oil firms and the banks in the public sector. The valuations are good. Don't take sick companies for privatisation for the purpose of generating money. They need to be privatised to generate efficiency. Remove them from the clutches of the government. Allow them to be boardmanaged. Give them freedom so that they can compete along with private sector. You can't shake them and then make them compete with private sector. And because you can't compete, you don't let private sector enter. It means continuing with your inefficiency at a great cost to the exchequer and great cost to the people of India.

Reviewing FTAs: The other thing that has damaged India has been the indiscrete signing of free-trade agreements (FTAs).

This was a serious matter and the Indian government should have taken it very seriously. We (government) still went ahead and signed the FTA. The very word is free trade, but the trade traffic is one-way. We are exporting jobs and not creating jobs within the country. The Prime Minister in the BRIC summit said India has to create 10-15 million jobs. Yes we did. But we created those in foreign lands. When the Indian economy was growing at 7-8%, we created many jobs. The trade imbalance with China has widened. We export tea, iron ore to China, which means we take it out from mother earth and the Chinese add value by making steel and export. That's why manufacturing, which was 22% of the Indian GDP, went down to 17% and from a growth of 12% at one time it is now registering negative growth. It was directly created by government policies. We need to go back and ask them to modify these agreements so that it becomes a fair agreement, or you always have an option to come out of it. We (Indians) are not bonded labour for life.

**Need to cut Government expenditure:** We have a Ministry for surface transport. And on top of it we have separate Ministries for shipping, railways and civil aviation — each one working at cross purposes on the issue of transportation. Likewise we have
Ministries for commerce & industry as well as Ministries for textiles, steel, chemicals and fertilisers.
Whatever be the reason for creating the same, ideally it is time we cut our Government expenditure significantly. To do this we need to have a single nodal Ministry — Transport or Industry; not one for each mode of transport or type of industry.

This will alone will ensure revenue surplus and dramatically bring down fiscal deficit. A lower fiscal deficit will in turn ensure more money for private investments. Tackle Food Inflation — The Government of India currently has a buffer stock of food grains in excess of 80 MT. This implies that the Government, and not private grain traders, is the biggest hoarder of food grains. By purchasing such huge quantities of food grains and refusing to distribute them [a significant portion of this stock would be unfair for even cattle consumption], the procurement policies of the Government is a significant cause for domestic food inflation. To remedy the extant situation, the Government must forthwith release 25-40 MT of food grains in the open market for distribution. This would at once bring down food inflation.

Over and above this, studies conducted by eminent economists suggest that the futures market in commodity is a cause for food inflation. We need to close these gambling dens forthwith to tackle the menace of inflation.

Raise Interest Rates: Consequent to a falling Rupee, domestic savers are finding it extremely rewarding to invest in gold. As deposit rates rise, domestic savers will find it lucrative to save and save in simple financial sector products. This will in turn ease the pressure of gold imports, trade and current account deficits. As a net consequence, the pressure on the Rupee will ease significantly. Crucially, if interest rate regime is reset, we will be able to finance domestic investment requirement through domestic savings.

Restoring the confidence of Domestic and International Community i.e. encouraging investment through FDI

An increase in FDI may be associated with improved economic growth due to the influx of capital and increased tax revenues for the host country. Host countries often try to channel FDI investment into new infrastructure and other projects to boost development. Greater competition from new companies can lead to productivity gains and greater efficiency in the host country and it has been suggested that the application of a foreign entity’s policies to a domestic subsidiary may improve corporate governance standards. Furthermore, foreign investment can result in the transfer of soft skills through training and job creation, the availability of more advanced technology for the domestic market and access to research and development resources. The local population may be able to benefit from the employment opportunities created by new businesses.

Conclusion

Reviving an economy of the size and complexity of India, amid its often conflict-ridden political system, cannot happen overnight. The impact of many reforms, once introduced, will take years to register their full effect.
NCERT reviews the syllabus after every 5 years to incorporate changes which respond to the changes in the social, economic and political scenario at domestic and global level. School curriculum should be pragmatic related to the social context and must prepare children for manpower requirement especially at Secondary & Sr. Secondary level more so in case of India where many do not opt for higher education due to several reasons including financial aspect. The new Govt. is also focusing on Skill India and education has to provide linkages at all levels to reduce gap between the textual knowledge and the world of work.

Objectives of Teaching of Economics at Senior Secondary level are:

1. Being up to date and aware about global economy and the world Economic Policies.
2. To develop the understanding about the use of scarce resources for the development of individual and the nation.
3. Demonstrate understanding of economic term concept and their relationship.
4. Evaluate the consequences of contemporary economic problems and issues of an individual firm and Govt.
5. Apply appropriate terminology concepts and theories in contemporary and hypothetical economic contexts.
6. Being aware about making better economic decisions.

The good syllabus is that which gives total guideline to the learner as well as to the teacher. It should be designed according the intelligence level of learner, social and economic context of the society and learner behaviour. The objective of the course should emerge from the analysis of learner’s need.

Keeping in view below are same observations and comments given on present syllabus:

Linkages: There appears to be no link between the syllabus of Class XI & XII as well as different topics of class XI and class XII.
Without giving knowledge about the meaning and functions of commercial bank, teaching of money supply, inflationary gap and monetary policy become less effective.

Without teaching Total Revenue and Total Cost Approach creates a problem to a learner to find the Level of Output where profit is maximum.

Few Concept of National Income are not explained -like Interest on National Debt, Components of NFIA, Components of Private Final Consumption Expenditure etc. Whereas understanding of these components are required at the time of calculation of National Income on learner’s level. It leads to mere cramming / memorising only.

Memorising of few concepts and their relationship will not help in understanding the Economic Laws and Principles These have to be understand in totality by asking questions such as why and then a step further by applying them to various situations, for example: why the AC falls as output increases up to minimum level after why it starts to increase with the increasing of output, concept of inflation and depreciation of domestic currency on the market situation, price and equilibrium or money market. Govt. Budget and its components also not explained deeply to creates an understanding about budget of Indian Economy.

Critical Overview
The syllabus of Economics at Sr. - Sec. Level prescribed by the CBSE may be modified to help in development of skills and application of Economic Laws and Principles. It is less linked with day to day market economic situations faced by learners.

General Suggestions
1. Need based Activities should be introduced.
2. More focus on development of skill and application of the concepts.
3. Topics should be given on situation based economic problems.
4. More emphasis should be given on contexts/situation based economic problems.

*Though the recent initiative by CBSE in this direction are well received and appreciated. It is however felt by most of the teachers that more time and guidelines/orientation is required for its effective implementation.*
APPENDIX
All the Heads of Institutions affiliated to CBSE.

Subject: Open Text-based Assessment for Class XI, March 2014.


Dear Principal,

In continuation with the circulars cited above, the following may please be noted with regard to Open Text-based Assessment (OTBA) in the subjects of Geography, Economics and Biology of Class XI:

1. The Annual Examination in these subjects of Class XI will be conducted by the schools as per the past practice.
2. The Question papers will be developed by the teachers as per the syllabus and question paper design prescribed by the Board.
3. The Question papers in these subjects will have an OTBA section of 10 marks based on one of the open text materials supplied by the Board.
4. The questions for the OTBA section will be supplied by the CBSE through Integrated Test Management System (ITMS) in the months of February/March 2014.
5. With the inclusion of OTBA section of 10 marks the weightings of marks assigned to various units of the Geography, Biology and Economics Syllabus will proportionately reduce as shown below:

Geography (029)  
Class XI (2013-14)  
One Theory Paper 70 Marks 3 Hours

Part A. Fundamentals of Physical Geography 25 (Marks)
   Unit-1: Geography as a discipline
   Unit-2: The Earth
   Unit-3: Landforms
   Unit-4: Climate
   Unit-5: Water (Oceans)
### Unit-6: Life on the Earth
Unit-7: Map and diagram
5 (Marks)

### Part B. India-Physical Environment
Unit-8: Introduction
Unit-9: Physiography
Unit-10: Climate, vegetation and soil
Unit-11: Natural hazards and Disasters
Unit-12: Map and Diagram
5 (Marks)

**Open Text-based Assessment**
10 (Marks)

**70 Marks**

### Economics (030)
**Class-XI (2013-14)**
**One paper** 3 Hours 90 Marks

**Part A: Statistics for Economics**

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<th>Unit</th>
<th>Title</th>
<th>Marks</th>
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<tr>
<td>1</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Collection, Organisation and Presentation of Data</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Statistical Tools and Interpretation</td>
<td>27</td>
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<td></td>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
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**Part B: Indian Economic Development**

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<th>Marks</th>
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<tr>
<td>4</td>
<td>Development Experience (1947-90) and Economic Reforms since 1991</td>
<td>08</td>
</tr>
<tr>
<td>5</td>
<td>Current Challenges facing Indian Economy</td>
<td>08</td>
</tr>
<tr>
<td>6</td>
<td>Development experience of India - A Comparison with neighbours</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
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</table>

**Open Text-based Assessment**
10

**90 Marks**

### Biology (044)
**Class-XI (2013-14)**
(Theory-one paper)

**Time: 3 Hours**

<table>
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<tr>
<th>Time</th>
<th>Marks</th>
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**Open Text-based Assessment**
10

**70**
This may be brought to the notice of concerned teachers.

Yours faithfully,

Sugandh Sharma
Additional Director

Copy with a request to respective Heads of Directorates/KVS/NVS/CTSA as indicated below to also disseminate the information to all concerned schools under their jurisdiction:

3. The Director of Education, Directorate of Education, Govt. of NCT of Delhi, Old Secretariat, Delhi-110 054.
4. The Director of Public Instructions (Schools), Union Territory Secretariat, Sector 9, Chandigarh-160 017.
5. The Director of Education, Govt. of Sikkim, Gangtok, Sikkim – 737101.
6. The Director of School Education, Govt. of Arunachal Pradesh, Itanagar – 791 111
7. The Director of Education, Govt. of A&N Islands, Port Blair - 744101.
8. The Director of Education, S.I.E., CBSE Cell, VIP Road, Jumlee Ghat, P.O. 744103, A&N Islands
9. The Secretary, Central Tibetan School Administration, ESSESS Plaza, Community Centre, Sector 3, Rohini, Delhi-110 085.
10. All the Regional Officers of CBSE with the request to send this circular to all the Heads of the affiliated schools of the Board in their respective regions.
11. The General Secretary, Council of Boards of School Education in India, 6H,BigJo’s Tower, A-8, Netaji Subhash Place, Ring Road,Delhi-110034.
12. The Education Officers/AEOs of the Academic Branch, CBSE.
13. The Research Officer (Technology) with the request to put this circular on the CBSE Academic website.
14. The Library and Information Officer, CBSE
15. EO to Chairman,PS to Chairman, CBSE
16. DO/PA to Secretary, CBSE
17. PS to CE, CBSE
18. PA to Director (Acad.)
19. PA to HOD (AIEEE)
20. PA to Joint Director , CBSE
21. PRO, CBSE

Additional Director & Associate Professor
ANNEXURE - 2

Series OSR/1

Kođ No. 58/1/1

Rol No. ______________

Parivarthi kođ ko koo uttar-pustika kaa mukhopad pah avrasa lihoh.

Candidates must write the Code on the title page of the answer-book.

- Krupe jaač kah lek kaa is prasna-patram maa mugrit push 8 haa.
- Prasna-patram daahine haah kii orir dii gaa ko kođ nombah ko chhastr uttar-pustika kaa mukh-push pah lihoh.
- Krupe jaač kah lek kaa is prasna-patram 32 prasnas haa.
- Krupe prasna kaa uttar lihohaa shruu karnaa se pahlaa, prasna kaa kramak abash lihoh.
- Iss prasna-patram ko podane kaa lii 15 minaak kaa samay dii gaa haa. Prasna-patram kaa jitarun paurab maa 10.15 baa kiyaa jahayga. 10.15 baa se 10.30 baa tak chhastr keval prasna-patram ko podheenge oor iss avadhik kaa dhaarana vee uttar-pustika pah koii uttar nahe lihoh.
- Please check that this question paper contains 8 printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains 32 questions.
- Please write down the Serial Number of the question before attempting it.
- 15 minutes time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the students will read the question paper only and will not write any answer on the answer-book during this period.

अर्थशास्त्र

ECONOMICS

Nirgharit samvat : 3 pratta

Time allowed : 3 hours

Samaan virdhaa

(i) Doonaa khandhaa kaa samhi prasna anivarnaar haa.

(ii) Pratvnya prasna kaa nirgharit anukh uska samaan kah dii gaa haa.

(iii) Prasna sangha 1–5 taa 17–21 aatti laphilalak prasna haa, jinaa pratvnya kaa 1 anukh haa.

Isskaa uttar keval ek vantikam maa hii anupakhiti haa.

[P.T.O.]
(iv) प्रश्न संख्या 6-10 और 22-26 लघुत्तमात्मक प्रश्न हैं, जिनमें प्रत्येक के 3 अंक हैं। प्रत्येक का उत्तर सामान्यतः 60 शब्दों से अधिक नहीं होना चाहिए।

(v) प्रश्न संख्या 11-13 और 27-29 भी लघुत्तमात्मक प्रश्न हैं, जिनमें प्रत्येक के 4 अंक हैं। प्रत्येक का उत्तर सामान्यतः 70 शब्दों से अधिक नहीं होना चाहिए।

(vi) प्रश्न संख्या 14-16 और 30-32 ध्यानात्मक उत्तर वाले प्रश्न हैं, जिनमें प्रत्येक के 6 अंक हैं। प्रत्येक का उत्तर सामान्यतः 100 शब्दों से अधिक नहीं होना चाहिए।

(vii) तारामंडल (*) प्रश्न सूल्याधारित प्रश्न हैं।

(viii) उत्तर संक्षिप्त तथा तथ्यात्मक होने चाहिए तथा व्याख्यात्मक ऊपर दी गई सीमा के अंतर्गत ही रहे जाने चाहिए।

General Instructions:
(i) All questions in both the sections are compulsory.
(ii) Marks for questions are indicated against each.
(iii) Question Nos. 1-5 and 17-21 are very short-answer questions carrying 1 mark each. They are required to be answered in one sentence each.
(iv) Question Nos. 6-10 and 22-26 are short-answer questions carrying 3 marks each. Answer to them should not normally exceed 60 words each.
(v) Question Nos. 11-13 and 27-29 are also short-answer questions carrying 4 marks each. Answer to them should not normally exceed 70 words each.
(vi) Question Nos. 14-16 and 30-32 are long-answer questions carrying 6 marks each. Answer to them should not normally exceed 100 words each.
(vii) Questions marked star (*) are value based questions.
(viii) Answer should be brief and to the point and the above word limit should be adhered to as far as possible.

खण्ड अ

Section A

*1. सरकार द्वारा किए गए उपायों से बेरोज़गारी कम हो जाती है। उत्पादन संभावना सीमा के संदर्भ में इसका आर्थिक मूल्य बढ़ता है।
Unemployment is reduced due to the measures taken by the government. State its economic value in the context of production possibilities frontier.

2. बजट सेट की परिभाषा दीजिए।
Define budget set.

3. व्यक्ति अर्थशास्त्र में सम्प्रदायित (आगम) से क्या अभिप्राय है?
What is meant by revenue in microeconomics?

4. ‘एक कारक के प्रतिफल’ का अर्थ है?
Give meaning of ‘returns to a factor.’

58/1/1
5. पूर्ण अत्याधिकार से क्या अभिलोभ है ?
What is perfect oligopoly ?

6. ‘किसके लिए उत्पादन किया जाय’ केन्द्रीय समस्या समझाइए।
Explain the central problem ‘for whom to produce.’

7. एक उपभोक्ता 9 रू. प्रति इकाई पर एक वस्तु की 18 इकाइयाँ खरीदता है। वस्तु की कीमत मांग लोच (−)1 है। उपभोक्ता 10 रू. प्रति इकाई पर वस्तु की कितनी इकाइयाँ खरीदेगा ? परिकल्पना कीजिए।
A consumer buys 18 units of a good at a price of Rs. 9 per unit. The price elasticity of demand for the good is (−)1. How many units the consumer will buy at a price of Rs. 10 per unit ? Calculate.

8. सीमांत सम्प्राप्ति (आगम) और औसत सम्प्राप्ति (आगम) के बीच संबंध बताइए।
अथवा
Kul lagat aur samanta lagat ke bich sambandh bataiye.
State the relation between marginal revenue and average revenue.
Or
State the relation between total cost and marginal cost.

9. जैसे-जैसे उत्पादन में वृद्धि की जाती है, औसत स्थिर लागत का व्यवहार क्या रहता है ? ऐसा क्यों होता है ?
What is the behaviour of average fixed cost as output is increased ? Why is it so ?

10. एक अत्याधिकार बाजार में फर्मों को परस्पर निर्भर क्यों कहा जाता है ? समझाइए।
Why are the firms said to be interdependent in an oligopoly market ? Explain.

11. एक उपभोक्ता केवल दो वस्तुओं का उपभोग करता है। उपयोगिता विश्लेषण की सहायता से उपभोक्ता संतुलन की व्याख्या कीजिए।
अथवा
Ek upbhokta keval do vasutuon ka upbhog karta hain aur vasutu sahajata se upbhokta santulan ke vayakhya kijite.

A consumer consumes only two goods. Explain consumer's equilibrium with the help of utility analysis.

Or
A consumer consumes only two goods A and B and is in equilibrium. Show that when price of good B falls, demand for B rises. Answer this question with the help of utility analysis.

12. वस्तु की मांग पर उपभोक्ता की आय में परिवर्तन का क्या प्रभाव पड़ता है ? समझाइए।
   What happens to the demand of a good when consumer’s income changes? Explain.

13. परिवर्ती अनुपातों के नियम के अनुसार सीमांत उत्पाद का व्यवहार बताइए। इस व्यवहार के कारण समझाइए।
   State the behaviour of marginal product in the law of variable proportions. Explain the causes of this behaviour.

14. अनधिमान बच्च विश्लेषण की सहायता से उपभोक्ता संतुलन की गातें समझाइए।
   अथवा
   अनधिमान बच्चों की तीन विश्लेषणाएँ समझाइए।
   Explain the conditions of consumer’s equilibrium with the help of the indifference curve analysis.
   Or
   Explain the three properties of the indifference curves.

15. एक फर्म के बारे में निम्नलिखित सूचना ते, सीमांत लागत और सीमांत सम्प्राप्ति (आगम) के आधार पर फर्म का संतुलन उत्पादन ज्ञात कीजिए। कारण बताइए। इस उत्पादन पर लाभ भी ज्ञात कीजिए।
   एक फर्म के बारे में निम्नलिखित सूचना ते, सीमांत लागत और सीमांत सम्प्राप्ति (आगम) के आधार पर फर्म का संतुलन उत्पादन ज्ञात कीजिए। कारण बताइए। इस उत्पादन पर लाभ भी ज्ञात कीजिए।

<table>
<thead>
<tr>
<th>उत्पादन (ईकाई)</th>
<th>कुल सम्प्राप्ति (आगम) (₹.)</th>
<th>कुल लागत (₹.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>8</td>
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<td>2</td>
<td>14</td>
<td>15</td>
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<td>3</td>
<td>21</td>
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<td>4</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>35</td>
<td>36</td>
</tr>
</tbody>
</table>

From the following information about a firm, find the firms equilibrium output in terms of marginal cost and marginal revenue. Give reasons. Also find profit at this output.
<table>
<thead>
<tr>
<th>Output (units)</th>
<th>Total Revenue (Rs.)</th>
<th>Total Cost (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>8</td>
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<td>2</td>
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<td>4</td>
<td>28</td>
<td>28</td>
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<tr>
<td>5</td>
<td>35</td>
<td>36</td>
</tr>
</tbody>
</table>

16. एक वस्तु का बाजार संतुलन में है। वस्तु की मांग में “वृद्धि” हो जाती है। बाजार के दोबारा संतुलन में अग्रे तक इस परिवर्तन के कारण होने वाले प्रभावों की श्रृंखला समझाए। रेखाचित्र का प्रयोग कीजिए।

Market of a commodity is in equilibrium. Demand for the commodity “increases.” Explain the chain of effects of this change till the market again reaches equilibrium. Use diagram.

Note: The following question is for the Blind Candidates only in lieu of Q. No. 16.
Market of a commodity is in equilibrium. Demand for the commodity “increases.” Explain the chain of effects of this change till the market reaches equilibrium again. Compare the prices at the old and new equilibrium.

Section B

17. मांग कमाओं से क्या अभिव्यक्ति है?
What are demand deposits?

18. अनैतिक बेरोजगारी क्या है?
What is involuntary unemployment?

19. सीमांत उपभोग प्रवृत्ति की परिभाषा दीजिए।
Define marginal propensity to consume.

20. सरकारी बजट की परिभाषा दीजिए।
Define government budget.

58/1/1 [P.T.O.]
21. व्यापार-शेष का अर्थ बताइए।
Give meaning of balance of trade.

22. बाह्य कारण (बाहरी प्रभाव) की परिभाषा दीजिए। ऋणात्मक बाहरी प्रभाव का एक उदाहरण दीजिए।
Define externalities. Give an example of negative externality. What is its impact on welfare?

23. मुद्रा के ‘मूल्य-संचय’ कार्य का महत्त्व समझाइए।
अथवा

मुद्रा के ‘विनियम का माध्यम’ कार्य का महत्त्व समझाइए।

Explain the significance of ‘store of value’ function of money.

24. सरकारी ब्याज के संबंध में क्या नियमस्थित राजस्व व्यय है या पूंजीवाद व्यय? कारण बताइए।
(i) कर इकट्ठा करने पर होने वाला व्यय।
(ii) कम्प्यूटर खरीदने पर होने वाला व्यय।
Is the following revenue expenditure or capital expenditure in the context of government budget? Give reason.
(i) Expenditure on collection of taxes.
(ii) Expenditure on purchasing computers.

25. भुगतान संतुलन घटे का अर्थ समझाइए।
Explain the meaning of balance of payments deficit.

26. हाल ही में भारत सरकार ने सोने पर आयात शुल्क दोगुना कर दिया। इसका विदेशी विनियम दर पर क्या प्रभाव पड़ने की संभावना है और कैसे?
Recently Government of India has doubled the import duty on gold. What impact is it likely to have on foreign exchange rate and how?

27. मुद्रा आपूर्ति की परिभाषा दीजिए और इसके फलक समझाइए।
अथवा

केन्द्रीय बैंक का ‘अंतिम क्रैडिट’ कार्य समझाइए।

Define money supply and explain its components.

28. एक अर्थव्यवस्था, जो कि संतुलन में है, के बारे में नियमस्थित ऑक्सीजन से निवेश व्यय का परिकल्पना कीजिए:
राष्ट्रीय आय = 10000
सीमान्त बचत प्रतिचित्र = 0.25
(स्वायत्त) स्वतंत्र उपयोग व्यय = 200

58/1/1
Calculate investment expenditure from the following data about an economy which is in equilibrium:

National income = 1000
Marginal propensity to save = 0.25
Autonomous consumption expenditure = 200

*29. सरकार सार्वजनिक वस्तुओं के उत्पादन पर अपना व्यय बढ़ा देती है। यह किस आर्थिक मूल्य को
दर्शाता है? समझाइए।

Government raises its expenditure on producing public goods. Which economic
value does it reflect? Explain.

30. निम्नलिखित से राष्ट्रीय आय और सकल राष्ट्रीय प्रयोज्य आय का परिकलन कीजिए :

(अरब ₹.)

(i) वित्तों को निवल पूँजीत हस्तांतरण (-)15
(ii) निजी अंतिम उपभोग व्यय 600
(iii) आर्थिक सहायता 20
(iv) सरकारी अंतिम उपभोग व्यय 100
(v) अप्रत्यक्ष कर 120
(vi) निवल आयात 20
(vii) अच्छ पूँजी का उपभोग 35
(viii) स्टॉक में शुद्ध परिवर्तन (-)10
(ix) वित्तों को निवल कारक आय 5
(x) निवल देशीय पूँजी निर्माण 110 4+2=6

Calculate national income and gross national disposable income from the following:

(Rs. Arab)

(i) Net current transfers to abroad (-) 15
(ii) Private final consumption expenditure 600
(iii) Subsidies 20
(iv) Government final consumption expenditure 100
(v) Indirect tax 120
(vi) Net imports 20
(vii) Consumption of fixed capital 35
(viii) Net change in stocks (-)10
(ix) Net factor income to abroad 5
(x) Net domestic capital formation 110
31. Giving reason explain how should the following be treated in estimating gross domestic product at market price?

(i) Fees to a mechanic paid by a firm.
(ii) Interest paid by an individual on a car loan taken from a bank.
(iii) Expenditure on purchasing a car for use by a firm.

32. Explain national income equilibrium through aggregate demand and aggregate supply. Use diagram. Also explain the changes that take place in an economy when the economy is not in equilibrium.

Or

Outline the steps required to be taken in deriving saving curve from the given consumption curve.

Note: The following question is for the Blind Candidates only in lieu of Q. No. 32.

Define aggregate demand. Explain national income equilibrium through aggregate demand and aggregate supply. Also explain the changes that take place in an economy when the economy is not in equilibrium.

Or

What is saving function? How it is derived from the consumption function? Explain.
**General Instructions:**

1. Please examine each part of a question carefully and allocate the marks allotted for the part as given in the marking scheme below. TOTAL MARKS FOR ANY ANSWER MAY BE PUT IN A CIRCLE ON THE LEFT SIDE WHERE THE ANSWER ENDS.

2. Expected suggested answers have been given in the Marking Scheme. To evaluate the answers the value points indicated in the marking scheme be followed.

3. For questions asking the candidate to explain or define, the detailed explanations and definitions have been indicated along with the value points.

4. For mere arithmetical errors, there should be minimal deduction. Only ½ mark be deducted for such an error.

5. Wherever only two / three or a “given” number of examples / factors / points are expected only the first two / three or expected number should be read. The rest are irrelevant and must not be examined.

6. There should be no effort at “moderation” of the marks by the evaluating teachers. The actual total marks obtained by the candidate may be of no concern to the evaluators.

7. Higher order thinking ability questions are assessing student’s understanding / analytical ability.

8. 🌟 indicates value based questions.

*General Note*: In case of numerical question no mark is to be given if only the final answer is given.

<table>
<thead>
<tr>
<th>A1</th>
<th>Expected Answer / Value Points</th>
<th>Distribution of Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The economic value of reduction in unemployment is that it will help the economy in realizing its production potential.</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Budget set consists of all the bundles of the goods which at given prices cost less than or equal to the given income of the consumer.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Receipts from sale of a good or market value of the output produced is called revenue</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Returns to a factor refers to change in output when only one input is changed, other inputs remaining unchanged.</td>
<td>1</td>
</tr>
</tbody>
</table>
If in an oligopoly market firms produce homogeneous products, it is called perfect oligopoly.  

For whom to produce means that who will buy the goods and services produced. Clearly, those who have income will be able to buy. So, the problem amounts to how the national income is distributed in an economy.

\[ E_p = \frac{p \times \Delta Q}{Q} \]

\[-1 = \frac{9 \times \Delta Q}{18} \]

\[ 9 \times \Delta Q = -18 \]

\[ \Delta Q = -2 \]

Consumer will buy \( Q + \Delta Q = 18 + (-2) = 16 \) units

(No marks if only the final answer is given)

When MR < AR, AR falls
When MR = AR, AR is constant
When MR > AR, AR rises

**OR**

When TC rises at a decreasing rate, MC falls.
When TC rises at an increasing rate MC rises.
When TC rises at a constant rate MC is constant.

AFC falls continuously as output is increased.
It is because, even when output is increased TFC remains unchanged.

(Explanation based on \( \frac{MU_x}{p_x} < \frac{MU_y}{p_y} \) is also correct.)

Assuming that the only two goods the consumer consumes are X and Y, the conditions of equilibrium are:

(1) \( \frac{MU_x}{p_x} = \frac{MU_y}{p_y} \)

(2) MU falls as more is consumed

**Explanation**: (1) Suppose \( \frac{MU_x}{p_x} > \frac{MU_y}{p_y} \). The consumer will not be in equilibrium because per rupee MU of X is greater than per rupee MU of Y. This will induce the consumer to buy more of X by reducing expenditure on Y. It will lead to fall in MUx and rise in MUy. This will continue till \( \frac{MU_x}{p_x} = \frac{MU_y}{p_y} \).

(2) Unless MU falls as more of a good is consumed the consumer will not reach equilibrium.
Given \( \frac{MU_A}{P_A} = \frac{MU_B}{P_B} \) (Consumer is in equilibrium)

Given that \( P_B \) falls, then

\[ \frac{MU_A}{P_A} < \frac{MU_B}{P_B} \quad (\text{Or} \quad \frac{MU_B}{P_B} > \frac{MU_A}{P_A}) \]

Since per rupee MU of B is higher than per rupee MU of A, the consumer will reduce expenditure on A and increase that on B. So, when \( P_B \) falls, demand for B rises.

The effect of change in income of the consumer on demand of a good depends upon whether the good is inferior or normal. If the good is normal for the given consumer, its demand is likely to increase with an increase in income. If the good is inferior for the consumer, its demand is likely to decrease with an increase in income.

There are three phases of change in MP:

1. **MP rises**: Because when the variable input is increased, efficient utilization of the fixed inputs takes place due to specialisation. This raises efficiency of the variable input.

2. **MP falls but is positive**: Because beyond a point increasing variable input puts pressure on fixed inputs leading to decline in efficiency.

3. **MP continues to fall and is negative**: Because there is so much pressure of the variable input on the fixed inputs that total product starts declining.

(To be marked as a whole. Diagram not required)

Let the two goods the consumer consumes be X and Y. The two conditions of equilibrium are:

1. **MRS = \( \frac{P_X}{P_Y} \)**
2. **MRS falls as more of X is consumed in place of Y.**

Explanation:

1. Suppose MRS > \( \frac{P_X}{P_Y} \) i.e. consumer is not in equilibrium. It means that to obtain one more unit of X consumer is willing to sacrifice more units of Y as compared to what is required in the market. The consumer buys more of X. MRS falls and continue to fall till it is equal to \( \frac{P_X}{P_Y} \) and the consumer is in equilibrium.

2. Unless MRS falls as consumer consumes more of X, the consumer will not reach equilibrium again.

(Explanation based on MRS < \( \frac{P_X}{P_Y} \) is also correct)

**OR**

The Three properties are

(i) IC slopes downwards from left to right.
(ii) IC is strictly convex to the origin.
(iii) IC to the right has higher utility.
**Explanation:**

(1) Slopes downward because to consume more of good X, the consumer must give up some quantity of good Y so that the consumer remains on the same level of satisfaction.

(2) Strictly convex because it is assumed that MRS continuously falls due to the law of diminishing marginal utility.

(3) IC to the right has higher utility level because it is assumed that higher consumption means higher utility.

<table>
<thead>
<tr>
<th>15</th>
<th>Output</th>
<th>TR</th>
<th>TC</th>
<th>MR</th>
<th>MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>14</td>
<td>15</td>
<td>7</td>
<td>7</td>
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<tr>
<td>3</td>
<td>21</td>
<td>21</td>
<td>7</td>
<td>6</td>
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<tr>
<td>4</td>
<td>28</td>
<td>28</td>
<td>7</td>
<td>7</td>
<td>Equilibrium</td>
</tr>
<tr>
<td>5</td>
<td>35</td>
<td>36</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

The producer is in equilibrium at 4 units of output.

**Reasons**

(1) $MC = MR$

(2) $MC > MR$ after equilibrium

**Profit**

$TR - TC = 28 - 28 = 0$

**For the Blind Candidate**

- $OP_1$ is the equilibrium price and $OQ_1$ is equilibrium quantity. When demand increases, the demand curve shifts to the right. $D_2$ is new demand curve.
- This creates an excess demand $E_2A_1$ at the existing price $OP_1$.
- The excess demand causes competition among buyers resulting in rise in price.
- Rise in price leads to fall in demand and rise in supply as indicated by the arrows.
- These changes continue till the market reaches new equilibrium at $E_2$ with a higher price $OP_2$ and higher quantity $OQ_2$.

- Increase in demand result in excess demand
- It causes competition among buyers resulting in rise in price
- Price rise reduces demand and increases supply.
- Excess demand is reduced.
- These changes continue till demand and supply are equal at new price.
- New price is higher than old price.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SECTION - B</strong></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>The deposits which can be withdrawn from the banks on demand, through cheques.</td>
</tr>
<tr>
<td>18</td>
<td>Involuntary unemployment occurs when those who are able and willing to work at the going wage rate do not get work.</td>
</tr>
<tr>
<td>19</td>
<td>MPC is the ratio of ‘change in consumption expenditure’ to ‘change in income’</td>
</tr>
<tr>
<td>20</td>
<td>Government budget is an annual financial statement showing estimated receipts and estimated expenditure of government.</td>
</tr>
<tr>
<td>21</td>
<td>‘Balance of trade’ refers to ‘export of goods’ less ‘import of goods’ during a given year.</td>
</tr>
</tbody>
</table>
| 22 | Externalities refer to the benefits (or harms) a firm or an individual causes to another for which it is not paid (or penalised)  
**Example**: Polluting river by an oil refinery Or any other relevant example.  
**Impact**: Reduces welfare through negative effect on health |
| 23 | The significance of money as a store of value is that money can be stored for use in future. One can use one’s present income in future because money comes in convenient denominations and is easily portable.  
**OR**  
Medium of exchange function has solved the problem of double coincidence of wants. The buyer can pay money to the seller and the seller in turn can buy what he wants to buy. Money facilitates the exchange. |
| 24 | (i) Expenditure on collection of taxes is revenue expenditure because it neither creates any asset nor reduces any liability.  
(ii) Expenditure on purchasing computers is capital expenditure because it creates assets. |
| 25 | Deficit in the BOP occurs when autonomous foreign exchange receipts fall short of autonomous foreign exchange payments. Autonomous transactions are those which are not influenced by other transactions in the BOP. |
| 26 | Increasing import duty on gold will make imports of gold costly. It will reduce demand for import of gold and consequently of foreign exchange. Supply of foreign exchange remaining unchanged, price of foreign exchange is likely to fall. |
| 27 | Money supply refers to the stock of money in the country on a particular day. It has two components: Currency with public outside the banks and demand deposits with banks. Demand deposits are deposits which can be withdrawn by writing cheque. Both these are directly usable for carrying out transactions at will.  
**OR**  
Lending of money by the Central Bank to commercial banks in times of emergent need is referred to as the ‘lender of last resort’ function of the central bank. |
28  \[ Y = \bar{C} + MPC(Y) + I \]
\[ 1000 = 200 + (1 - .25)1000 + I \]
\[ I = 1000 - 200 - 750 \]
\[ I = 50 \]

(No marks if only the final answer is given)  
1½  
1½  
1

29  Increased expenditure by government on public goods like defence, maintaining law and order etc. increases their availability to the people of the country. For example more expenditure on maintaining law and order raises the sense of security among the people. Any such expenditure raises welfare of the people.  
(To be marked as a whole)  
4

30  \[ NI = ii + iv + x - vi - v + iii - ix \]
\[ = 600 + 100 + 110 - 20 - 120 + 20 - 5 \]
\[ = Rs. 685 \text{ Arab.} \]
\[ GNDI = N.I. + vii + v - iii - i \]
\[ = 685 + 35 + 120 - 20 - (-15) \]
\[ = Rs. 835 \text{ Arab} \]

(No marks if only the final answer is given)  
2  
1½  
½  
1  
½

31  (i) **Fees paid to mechanic by a firm** is not included because it is an intermediate cost of the firm.  
(ii) **Interest paid by an individual** is not included because the loan is taken to meet consumption expenditure and therefore interest paid on such a loan is not a factor payment.  
(iii) **Expenditure on purchasing car by a firm** is included because it is an investment expenditure, a final expenditure.  
(No marks if the reason is not given)  
2  
2  
2

32

The national income is in equilibrium when \( AD = AS \). In the figure the equilibrium is at \( E \), the intersection of the \( AD \) curve and the 45° line. The equilibrium income is \( OM \).  
2
When the economy is not in equilibrium AD is not equal to AS. Suppose AD > AS, it will lead to fall in inventories with the producers. The producers in turn will produce more to reach the desired level of inventories: This raises AS till it becomes equal to AD.

(Answer based on AD < AS is also correct)

| 3 |

| OR |

| Steps: |

| (i) \( \ddot{C}C \), is the given consumption curve on OY axis take OS\(_1\) equal to \( O\ddot{C} \). |
| (ii) Draw a 45° line from point of origin. It intersects \( \ddot{C}C \) at B. |
| (iii) From point B draw a perpendicular on OX which cuts OX at B\(_1\). |
| (iv) Join S\(_1\) and B\(_1\) by a straight line and extend it to S. |
| (v) SS\(_1\) is the saving curve |

For Blind Candidates

- The sum of demand of all goods and services is called aggregate demand.  
- Equilibrium level of income is that level of income at which aggregate demand and supply are equal.  
- When the economy is not in equilibrium then aggregate demand and supply are not equal. Suppose aggregate demand is greater than aggregate supply. This will reduce inventories. To make up this deflation producers will produce more.  
- This will increase aggregate supply and ultimately it will become equal to aggregate demand.

| OR |

| Relation between saving and income is saving function  
\[ C = \ddot{C} + MPC \left( Y \right) \]  
\[ S = Y - C \]  
\[ = Y - \ddot{C} + MPC \left( Y \right) \]  
\[ = - \ddot{C} + (1 - MPC)Y \]  
This is derivation of saving function from C function. | 2 4 |