



R.E.D. Group of Schools

Summer Holidays Homework Framework

SESSION: 2023-24

CLASS – 12th

Subject: English

Text Book: Flamingo, Vistas and BBC Compacta

Syllabus Covered upto MAY END

Book Flamingo

- Chapter No.1 Chapter Name- The Last Lesson
- Chapter No.- 2 Chapter Name-Lost Spring
- Poem 1 Poem Name- My Mother at Sixty-six
- Poem 3 Poem Name – Keeping Quiet
- Chapter No. 3 Chapter Name- Deep Water
- Chapter No. 4 Chapter Name- The Rattrap

Book Vistas

- Chapter No. 1 Chapter Name – The Third Level
- Chapter No. 4 Chapter Name- The Enemy

2. List of all new concepts taught upto MAY END (Grammar Topics)

- Chapter No. Chapter Name- Reading Comprehension
- Chapter No. Chapter Name- Notice Writing
- Chapter No. Chapter Name- Invitations and Replies
- Chapter No. Chapter Name- Formal Letters

3. Tools required for doing Homework:

- Reader Book
- Notebook
- Scrap Book
- Resources as per activity

4. Date of Submission of Homework: 3rd July, 2023

Category 9-12

5. Instruction/Guidelines for Formative Assessment based Homework:

- **Section-A-Reading and Vocabulary Homework**

➤ Each student will read :

Fictional work: The Old Man and the Sea by Ernest Hemingway

Non-fiction: Restless Days, Sleepless Nights by RanjanaBharij

Write review of both the works separately using the following steps

➤ **Note: - Do the following homework in scrap book**

- ✓ Draw creative page as front page
- ✓ Identify and list the Main characters in the Book
- ✓ Write the summary of the story as follows :—
 - ❖ Beginning
 - ❖ Middle
 - ❖ End
- ✓ Write your favourite part of the story
- ✓ Mention anything you disliked about the book
- ✓ Book rating out of 5 and why
- ✓ If you were the author how will you end the story

2. Read any English newspaper once in a week and find out 5 new words from it & frame a sentence from it and present them in the same scrap book

Vocabulary Homework

- Make your own dictionary.(Each student will learn 3 new words daily with meanings and write the words in dictionary)

Total 45 words should be included in your dictionary

○ **Section-B- Speaking Homework**

1. Students will practice on one of the given topics :-

- “ The limit of my language is the limit of my world”

OR

- Poverty and mental health

OR

- Mother- daughter relationship

Students will prepare speaking activity video on any one of the above topics and share with English teachers on WhatsApp group

○ **Section-C-Creative Writing Homework**

Creative Writing Homework

Travelogue writing: There are many tourist attractions. They are popular for many reasons. Some places are popular for their natural beauty whereas others are for their historical and religious importance. Write the names of the places that you would like to visit in our country naturally beautiful places, places of historical and religious importance. Have you ever visited such places on your holidays? Write down the places you have visited so far. Write detailed description of a visited place in the form of a paragraph.

- **Character portrait/ sketch writing** of your favourite character from the novel “The Guide” by R.K. Narayan on A4 size sheet.

➤ **Review writing: On a movie “ Three idiots”**

○ **Section-D-** Learning and Pre reading Homework

1. **Pre- reading:** Poem No. -4 , A Thing of Beauty

Poem No.; -5, A Roadside Stand

Learning : Book Flamingo

- Chapter No. 1 Chapter Name- The Last Lesson
- Chapter No.- 2 Chapter Name- Lost Spring
- Poem 1 Poem Name- My Mother at Sixty-six
- Poem 3 Poem Name – Keeping Quiet
- Chapter No. 3 Chapter Name- Deep Water
- Chapter No. 4 Chapter Name- The Rattrap
- Book Vistas
- Chapter No. 1 Chapter Name – The Third Level
- Chapter No. 4 Chapter Name- The Enemy
- **Section-E-** Project work

1. **Prepare a student portfolio and include the following details :-**

- Personal details
- What I understand by portfolio
- My goals/ Aim in life for future
- My achievements till now
- The areas I need to work to achieve my goal

Following projects can be given for Grammar Topic covered in the month of April and May:-

2. 12 tenses formula with examples

OR

Verb project chart

OR

Parts of speech and application

3. Grammar flip book with all rules, tips and tricks on Clauses and Conditional sentences

OR

Draw your favorite fiction-character from the book ‘Old man and the Sea’ and describe it using

10 adjectives



R.E.D. Group of Schools

Summer Holidays Homework

Session: 2023-24

Subject: Economics

Class –12th

Text Book: Sandeep Garg

1. Syllabus Covered up to MAY END

- Chapter No.- 1 Chapter Name- Circular flow of income
- Chapter No.- 2 Chapter Name- Basic concepts of macroeconomics
- Chapter No.- 3 Chapter Name- National income and related aggregates
- Chapter No.- 4 Chapter Name- Measurement of national income
- Chapter No.- 5 Chapter Name- Money
- Chapter No.- 6 Chapter Name- Banking: Commercial banks and central banks
- Chapter No.- 7 Chapter Name- Aggregate demand and related concepts
- Chapter No.- 8 Chapter Name- Income determination and multiplier
- Chapter No.- 9 Chapter Name- Excess demand and deficient demand

2. List of all new concepts taught up to MAY END

- Circular flow of income in 2 sector economy
- Concept of domestic territory and normal resident
- Different types of goods like consumption, final, capital, intermediate goods.
- 8 Aggregates of national income
- 3 methods of calculating national income
- Money- Its functions, measures of money supply.
- Banks- Commercial and central banks and their functions
- Components of aggregate demand and aggregate supply and their curve formation
- Concept of investment multiplier
- Situation of excess demand and deficient demand in any economy and how it can be cured.

3. Formative Assessment based Homework:

- **Section-A**-Project work
- **Section-B**-Picture observation-based writing/ Case studies
- **Section-C**-ChartWork.
- **Section-D**-Current affairs
- **Section-E**- Learning and Pre-reading Homework

4. Summative Assessment based Homework:

- **Section-F- Chapter-wise Assignments**

5. Tools required for doing Homework:

- a. NCERT Text Book
- b. Notebook
- c. A₄Sheets
- d. Resources as per activity

6. Instruction/Guidelines for Formative Assessment based Homework:

- **Section-A(Project work)**

Topic	Roll .No
1. Evolution of money over the years	1 to 10
2. Commercial banks in India and their important functions.	11 to 22
3. Central bank of India and its important functions.	23 to 32

- **Topic: Evolution of money over the years**
- **Commercial banks in India and their important functions.**
- **Central bank of India and its important functions.**
- **Materials Required: Chart, Different types of currency of ancient years, Features of commercial banks.**
- **Stepstoprepare:**
 - **Collect information about different types of currencies used in ancient times.**
 - **Collect different forms of currencies in physical form.**
 - **Paste those currencies on chart with their information and time duration of their use.**

OR

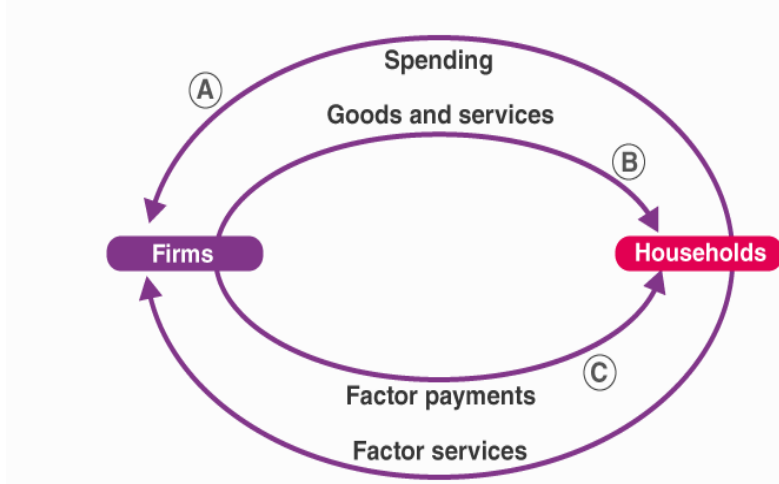
- Collect data of all the commercial banks of India
- Take their picture from internet.
- Paste pictures of all the commercial banks and important information like their year of establishment, main motto, tag line, headquarter etc.

OR

- Collect data of the Central bank of India
- Take its picture from internet.
- Paste pictures of all the Central bank and important information like their year of establishment, main motto, tag line, headquarter etc.

- Section-B- (Picture observation-based writing/ Case studies).
Observe the picture given below and write your views.

CIRCULAR FLOW OF INCOME IN A SIMPLE ECONOMY



- Section-C- (Chart Work)

- Make chart on given topic.
- Topic Derivation of saving curve from consumption curve.

OR

- Topic Saving curve and its types.

- Section-D- Current affairs

- Collect data on the given issue in economy.
 - **Materials Required:** Economic crisis Sri Lanka (2019-Present)
 - **Stepstop prepare:**

Search data on type of economy in Sri Lanka and why the situation of economic crisis arised in Sri Lanka. Also study about the economic crisis faced by India in 1991 and how crisis of these 2 countries if related.

- Section-E-Learning and Pre-reading homework.

- **Learning Homework:** Learn Ch 7,8,9 of Sandeep garg
- **Pre-Reading Homework:** Read Page no. 10.1 to 10.16 of Sandeep Garg Text Book.

- Section-F-Revisionassignment.



R.E.D. Group of Schools

Revision Assignment-1

Class: 12th

Ch. Name: Circular flow of income

Subject: Economics

Ch. No. : 1

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book.(Ch- 1)

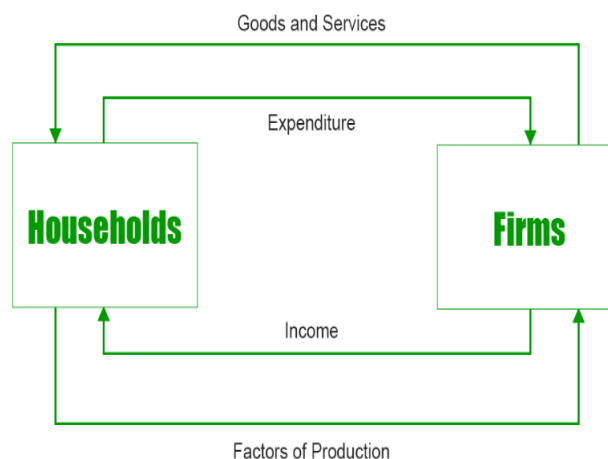
Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

A simple economy assume existence of only two sectors: Household and firms. Household are the owners of factors of production and consumer of goods and services. Firms produce goods and services and sell them to the household. This type of economy is considered as closed economy and there is no existence of foreign sector. Household sector supplies factor services to firms and the firms hire factor services only from household. Firms produce goods and services and sell their entire output to the household. Household receives factors income for their services and spend the entire amount on consumption of goods and services. There are no savings in the economy, neither from the side of household nor the firms save from their profit.



- (i). Which sector provides factor payment?
(a) Foreign sector (b) Household (c) Government (d) Firms
- (ii). The outer loop of the circular flow is called as:
(a) Real flow (b) Nominal flow (c) Money flow (d) none of the above
- (iii). Which sector does the work of generation of income and disposition of income?
(a) Household, Govt (b) Govt, Firms (c) Firms, Household (d) Household, Firms

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- i) Household sector ii) Firms iii) Closed economy

Q.5. Application based question:-

- i) Explain 2 sector model of an economy with diagram.
ii) Draw diagram of 3 phases of an economy.

Part-3

Short Questions

Q6. Answer the following questions:-

- i) What are the different phases of a circular flow of income?
ii) What is meant by circular flow of income? Distinguish between Real and Money flow.



R.E.D. Group of Schools Revision Assignment-2

Class: 12th
Ch. Name: Basic concept of macroeconomics

Subject: Economics
Ch. No.: 2

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book. (Ch- 2)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Domestic territory is a very important concept in national income accounting. In layman's language, domestic territory means the political frontiers of a country. However, for the purpose of national income accounting, it is used in a wider sense.

In addition to political frontier, domestic territory also includes:

- a) Ships, aircrafts owned and operated by normal residents between two or more countries.
 - b) Fishing vessels, oil and natural gas rigs and floating platform operated by the residents of a country in the international waters where they have exclusive right of operation.
 - c) Embassies, consulates and military establishments of a country located abroad.
1. Which of the following comes under the domestic territory of India?
- a) State bank of India
 - b) Google office in India
 - c) Office of Tata Motors in Australia
 - d) Russian embassy in India
2. Foreign embassies in India are part of India's:
- a) Economic territory
 - b) Domestic territory
 - c) Both (a) and (b)
 - d) None of the above
3. Which of the following is not included in domestic territory of India:
- a) Embassies, consulates and military establishments of a country located abroad.
 - b) International organizations
 - c) Embassies, consulates and military establishments of a country located abroad.
 - d) All of the above

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- i) Citizenship
- ii) Residency
- iii) Economic interest

Q.5. Application based question:-

Which of the following expenditure incurred are on intermediate products and which are on final products?

You must state reason for your answer:

- i) Purchase of ticket for train journey by an individual
- ii) Purchase of eatables by a firm.

Part-3

Short Questions

Q6. Answer the following questions:-

- iii) Machine purchased is always a final good". Do you agree? Give reasons for your answer.
- iv) Which of the following expenditure incurred are on intermediate products and which are on final products?



R.E.D. Group of Schools Revision Assignment-3

Class: 12th
Ch. Name: National income and related aggregates

Subject: Economics
Ch. No.: 3

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book. (Ch- 3)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

GDP at MP is a territorial concept as it includes value of final goods and services produced within domestic territory of a country. It considers all the producers within the domestic territory of the country. It is at market price that means it includes net indirect taxes. It is inclusive of depreciation.

NNP at FC is a national concept as it includes the value of final goods and services produced in the entire world. It considers the producers who are normal residents of the country. It is at factor cost, it excludes net indirect taxes. It does not include depreciation.

Q1. Depreciation is included in which of the component?

- a) GDP at MP
- b) NNP at FC
- c) NNP at MP
- d) All of the above

Q2. In NNP at FC which of the following component is included:

- e) Depreciation
- f) NFIA
- g) Indirect taxes
- h) Subsidy

Q3. Which of the following aggregate represents national income:

- e) NDP at MP
- f) NDP at FC
- g) NNP at MP
- h) NNP at FC

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- i) Product
- ii) Domestic income
- iii) National income

Q.5. Application based question:-

Write formula for the following terms:

- i) Gross domestic product at market price
- ii) Net national product at factor cost

Part-3

Short Questions

Q6. Answer the following questions:-

- i) Distinguish between domestic product and national product.
- ii) Discuss the concepts of:
 - a) NDP at MP
 - b) GNP at FC



R.E.D. Group of Schools
Revision Assignment- 4

Class: 12th

Ch. Name: Methods of calculating national income

Subject: Economics

Ch. No.: 4

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book. (Ch- 4)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Precautions of Income Method

1. Transfer Income will not be included: Transfer incomes such as donations, charity, scholarships, old age pensions, etc., are not counted in the National Income, as these activities are not connected to any production activity and no value addition takes place.

2. Income from Sale of Second-Hand Goods will not be included: Income received from the sale of second-hand goods also known as **capital gains** is not calculated in National Income, as their original sale has already been included at the time of purchase. If these goods are calculated again, then it will lead to the problem of **double counting**. However, any kind of commission or brokerage received by agents on the sale of these goods will be included, as it is an income received for rendering productive services.

3. Income from Sale of Securities will not be included: Income from the sale of bonds, shares, and debentures will not be calculated, as these transactions do not contribute to the current flow of goods & services. These financial assets are just paper claims and include the transfer of title only. However, any kind of commission or brokerage on such assets is included in National Income, as it is a productive service.

4. Windfall Gains will not be included: Income that arises from windfall gains like horse racing, lotteries, etc., are not calculated in the determination of National Income, as they are not connected with any kind of production activity.

5. Imputed Value of Services by Owners of Production Units will be included: The imputed value of self-occupied houses, production for self-consumption, interest on own capital, etc., are included under National Income, as these are productive activities and add to the current flow of goods & services of the economy.

6. Payment out of Past Savings will not be included: Payment out of past savings such as interest tax, gift tax, death duties, etc., is not calculated in National Income, as they are paid out of past savings or wealth and do not contribute to the current flow of goods & services of the economy.

- Which of the following is not a component of income method?
(a) Compensation of employees (b) Windfall gains
(c) Wages and salaries in cash (d) Wages and salaries in kind
- Which aggregate do we get by adding all components of income method?
(a) GDPmp (b) NNPfc (c) NDPmp (d) NNPmp
- Which of the following is included in calculating national income by income method?
(a) Transfer income (b) Windfall gains
(c) Payment out of past savings (d) Imputed value of services by owners of production units

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- i) Windfall gains ii) GDP deflator iii) Double counting

Q.5. Application based question:-

Write formula for the following terms:

- a) Gross domestic product at market price b) Net national product at factor cost

Part-3

Short Questions

Q6. Answer the following questions: -

Explain the concepts of Real GDP and Nominal GDP, using a suitable numerical example.



R.E.D. Group of Schools
Revision Assignment - 5

Class: 12th
Ch. No.: 5

Subject: Economics
Ch. Name : Money

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book. (Ch- 5)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Components of Money supply

These are the components of money supply –

- 1. Currency with the people:** Currency held by the general public is a component of the money supply, be it in terms of currency notes or coins. Currency is a medium of exchange for goods and services. The currency notes get issued by the government and accepted at their face value as payment.
 - 2. Demand deposits (DD) with banks:** A DD account (DDA) is a checking account from which funds can get withdrawn at any time, without any advance notice. DDAs pay interest on the invested funds. The most common type of DDAs includes checking accounts and savings accounts.
 - 3. Time Deposits:** These are interest-bearing and certificate of deposit (CD) accounts that feature a pre-set maturity date. The cash must remain within the bank account for the fixed term to earn the stated interest rate. Such bank accounts generally pay a higher rate of interest than a Daily or Current bank account. In short, a CD gives you higher returns than a Current bank account with significantly less risk than an investment. There can be two kinds of interest-bearing bank accounts –
 - 1. Fixed Deposits (FD) –** A FD account requires a consistent amount for a hard and fast period of your time. FDs are the safest kind of investment.
 - 2. Recurring Deposits (RD)-** Another variation to time deposit accounts is an RD account. In such bank accounts, the consumer puts in fixed amounts in small parts for an extended period.
1. Which of the following carries highest rate of interest?
 - (a) Current account
 - (b) Savings account
 - (c) Recurring deposit
 - (d) Fixed deposit
 2. Which is included in M1 measures?
 - (a) Savings deposits with post office
 - (b) Net time deposit with banks
 - (c) Currency and coins with public
 - (d) NSC
 3. Which is a part of limited legal tender money?
 - (a) Paper notes
 - (b) Coins
 - (c) Cheques
 - (d) All of the above

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- i) Legal tender money
- ii) Double coincidence of wants
- iii) Standard of deferred payment

Q.5. Application based question:-

What is meant by double coincidence of wants. Explain with the help of an example.

Part-3

Short Questions

Q6. Answer the following questions: -

What is meant by money supply? Discuss various constituents of money supply.



R.E.D. Group of Schools Revision Assignment- 6

Class: 12th

Ch. Name: Banking: Commercial banks and central banks

Subject: Economics

Ch. No.: 6

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book. (Ch- 6)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Banks are further segregated into four types.

Commercial banks: These banks are regulated by Banking Regulation Act, 1949. They accept the public deposit from the public for lending or investment.

Cooperative banks: Cooperative banks are undertaken by the State Cooperative Societies Act and give cheap credit to their members. The rural population is dependent on the cooperative banks for its financial backup.

Specialised banks: These banks provide financial help to special industries, foreign trade, etc. Few examples of specialised banks are foreign exchange banks, export and import banks, development banks, etc.

Central banks: These banks manage, check, and monitor all the activities of the commercial banks of a country.

Functions of Commercial Banks

- Acceptance of deposits
- Lending of funds
- Cheque facilities
- Remittance of funds

Ques (1) Which among the following is not a function of commercial banks.

- Acceptance of deposits
- Lending of funds
- Cheque facilities
- Lender of last resort

Ques (2) The function of issuing one rupee note or coin lies with?

- Commercial banks
- Central banks
- Finance ministry
- Government

Ques (3) The function of issuing currency lies with which of the following banks?

- Central bank
- RBI
- Both (a) and (b)
- Commercial banks

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- Spread
- Commercial banks
- Central bank

Q.5. Application based question:-

Explain the concept of money multiplier?

Part-3

Short Questions

Q6. Answer the following questions: -

What is meant by central bank? Explain its functions.



R.E.D. Group of Schools

Revision Assignment-7

Class: 12th

Ch. Name: Aggregate demand and its related concepts

Subject: Economics

Ch. No.: 7

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book. (Ch- 7)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Aggregate demand is a measurement of the total amount of demand for all finished goods and services produced in an economy. Aggregate demand is commonly expressed as the total amount of money exchanged for those goods and services at a specific price level and point in time.

Aggregate Demand Formula

The equation for aggregate demand adds the amount of consumer spending, investment spending, government spending, and the net of exports and imports. The formula is shown as follows:

$$\text{Aggregate Demand} = C + I + G + X - M$$

where: C=Consumer spending on goods and services I=Private investment and corporate spending
non

final capital goods (factories, equipment, etc.) G=Government spending on public goods and social
ervices (infrastructure, Medicare, etc.) Nx=Net exports (exports minus imports)

Aggregate Demand=C+I+G+Nx where: C=Consumer spending on goods and services I=Private in
estment and corporate spending onnon

final capital goods (factories, equipment, etc.) G=Government spending on public goods and social
services (infrastructure, Medicare, etc.) Nx=Net exports (exports minus imports)

Ques (1) How would you define aggregate demand numerically?

Ques (2) What are the various components of AD?

Ques (3) What are the various factors that affect AD?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Propensity
- ii) Consumption function
- iii) Autonomous investment

Q.5. Application based question: -

Explain the distinction between ex-ante measures and ex-post measures.

Part-3

Short Questions

Q6. Answer the following questions: -

What is meant by 'propensity to consume'? Discuss the two types of propensities to consume.



**R.E.D. Group of Schools
Revision Assignment- 8**

**Class: 12th
Ch. Name: Income determination and multiplier**

**Subject: Economics
Ch. No.: 8**

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book. (Ch- 8)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

As per **KEYNES**, there are **TWO APPROACHES** to determine the level of income and employment in an economy: –

1. AD-AS approach.
2. S-I approach.

Assumptions of equilibrium

1. The equilibrium output is determined in the *two-sector model*, only households and firms are assumed to be present and there is no government and foreign sector.
2. The price level is assumed to remain constant.
3. Equilibrium output is determined in the short run.
4. Investment expenditure is assumed to be autonomous.

Observations of aggregate demand-aggregate supply

- AD(C+I) comprises Consumption expenditure, which varies with the level of income, and Investment expenditure which is assumed to be autonomous, i.e., independent of the level of income.
- AS (C+S) comprises Consumption expenditure and saving. It is the total output of goods and services.
- The economy is in equilibrium at point E as at this point AD = AS.
- The equilibrium level of income is 200, When AD = AS.
- This is called the situation of **effective demand**. Effective demand refers to that level of AD that becomes effective because it is equal to AS.

Ques (1) What are the two approaches to determine income and employment level?

Ques (2) What are the three assumptions for equilibrium level?

Ques (3) Derive the S-I approach from AD As approach.

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Consumption expenditure
- ii) Investment expenditure
- iii) Underemployment equilibrium

Q.5. Application based question: -

Can an economy be in equilibrium when there is unemployment in the economy. Explain.

Part-3

Short Questions

Q6. Answer the following questions: -

Why must aggregate demand be equal to aggregate supply at the equilibrium level of income and output? Explain with the help of a diagram.



**R.E.D. Group of Schools
Revision Assignment- 9**

**Class: 12th
Ch. Name: Excess demand and deficient demand**

**Subject: Economics
Ch. No.: 9**

For recapitulation & solving the assignment the students should refer to their Sandeep Garg book. (Ch- 9)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Excess demand refers to the situation when aggregate demand (AD) is more than the aggregate supply (AS) corresponding to full employment level of output in the economy. It is the excess of anticipated expenditure over the value of full employment output.

Excess demand gives rise to an inflationary gap. Inflationary gap refers to the gap by which actual aggregate demand exceeds the aggregate demand required to establish full employment equilibrium.

Reasons for Excess Demand:

1. Rise in the Propensity to consume
2. Reduction in taxes.
3. Increase in Government Expenditure:
4. Increase in Investment.

Ques (1) What gives rise to inflationary gap?

Ques (2) What are the 2 measures that can be taken by the govt to cure problem of excess demand?

Ques (3) What are the various reasons for excess demand?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Deficient demand
- ii) Monetary policy
- iii) Repo rate

Q.5. Application based question: -

What is the impact of excess demand on output, employment and prices?

Short Questions

Q6. Answer the following questions: -

Explain the problem of excess demand in an economy with the help of a diagram. Explain the role of bank rate in correcting it.



R.E.D. GROUP OF SCHOOLS

Summer Holidays Homework

SESSION: 2023-24

CLASS – 12th

Subject: Geography

Text Book: NCERT

1. Syllabus Covered up to MAY END

- Chapter No.- 1 Chapter Name- Human Geography Nature and Scope
- Chapter No.- 2 Chapter Name- The world population, Distribution, Density and Growth
- Chapter No.- 3 Chapter Name- Human development
- Chapter No.- 4 Chapter Name-Primary Activities
- Chapter No.- 5 Chapter Name- Secondary Activities
- Chapter No.- 6 Chapter Name- Tertiary and Quaternary Activities
- Chapter No.- 7 Chapter Name- Transport and communication
- Chapter No.- 8 Chapter Name- International Trade

2. List of all new concepts taught up to MAY END

- Human Geography nature and scope
- Pattern of population distribution in the world
- Importance of human development
- Various activities included in primary activities
- Various activities included in secondary activities
- Various activities included in tertiary and quaternary activities
- International trade and its composition

3. Formative Assessment based Homework:

- Section-A-Working model
- Section-B-Case Studies.
- Section-C-Chart/Map Work.
- Section-D-Enquiry based activity
- Section-E- Learning and Pre-Reading Homework

4. Summative Assessment based Homework:

- Section-F-One assignment for each chapter from the syllabus covered before holidays

5. Tools required for doing Homework:

- NCERT Text Book
- Notebook
- A4Sheets
- Chart papers & Map
- Resources as per activity

6. Instruction/Guidelines for Formative Assessment based Homework:

- Section-A Working model

Topic	Roll .No
1. A brief report on the distribution and density of population in your state	1 to 6
2. Visit a nearby village and observe the cultivation of some crops and prepare a report	7 to 12
3. Look around and make a list of global brands, their logos and product and paste of chart	13 to 18
4. Find out from a travel agent the documents you need to travel abroad and prepare a report	19 to 24
5. Make a chart on the activities of BPO.	25 to 32

Materials Required: As per requirement of the model.

○ **Section-B- (Case Studies)**

Do given case Studies

Benda lives in the wild of the Abujh Maad area of central India. His village consists of three huts deep in the wilds. Not even birds or stray dogs that usually crowd villages can be seen in these areas. Wearing a small lion cloth and armed with his axe he slowly surveys the penda where his tribe practices a primitive form of agriculture called shifting cultivation. Benda and his friends burn small patches of forest to clear them for cultivation. The ash is used for making soil fertile. Benda is happy that the Mahua trees around him are in bloom. How lucky I am to be part of this beautiful universe, he thinks as he looks up to see Mahua, Palash, Sal trees that have sheltered him since childhood. Crossing the penda in a gliding motion, Benda makes his way to a stream. As he bends down to scoop up a palmful of water, he remembers to thank Loi-Lugi, the spirit of the forest for allowing him to quench his thirst. Moving on with his friends Benda chews on succulent leaves and roots. The boys have been trying to collect gajjhara and Kuchla, from the forest. These are the special plants that Benda and his people use.

- i. What is shifting cultivation?
- ii. What is used to increase the fertility of the soil?
- iii. The spirit of “Loi-Lugi” stands for.

○ **Section-C-Chart / Map Work.**

- Make chart on given topic.

Topic: Human development

Or

Topic: International trade

- Fill the following in map
 - Population distribution in the world
 - Population distribution in India
 - Primary activities centers in the world
 - Secondary activities centers in the world

○ **Section-D- Enquiry based activity.**

Analysis of change in weather

Materials Required: News Paper, Internet

Steps to enquire the topics: Note down daily maximum and minimum temperature of the day and write this in diary with date at the end of the month find out the average of the temperature.

○ **Section-E-Learning and Pre-reading homework.**

- **Learning Homework:** Learn Ch. 1, 2, 3, 4 of book 1 NCERT
- **Pre-Reading Homework:** Read Page no. 70 to 80 of NCERT Text Book.

○ **Section-F-Revision assignment.**



R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th

Ch. No.: 1 Ch. Name: Human geography: Nature and Scope

For recapitulation & solving the assignment the students should refer to their NCERT book Human geography. (Ch-1)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Benda lives in the wild of the Abujh Maad area of central India. His village consists of three huts deep in the wilds. Not even birds or stray dogs that usually crowd villages can be seen in these areas. Wearing a small lion cloth and armed with his axe he slowly surveys the penda where his tribe practices a primitive form of agriculture called shifting cultivation. Benda and his friends burn small patches of forest to clear them for cultivation. The ash is used for making soil fertile. Benda is happy that the Mahua trees around him are in bloom. How lucky I am to be part of this beautiful universe, he thinks as he looks up to see Mahua, Palash, Sal trees that have sheltered him since childhood. Crossing the penda in a gliding motion, Benda makes his way to a stream. As he bends down to scoop up a palmful of water, he remembers to thank Loi-Lugi, the spirit of the forest for allowing him to quench his thirst. Moving on with his friends Benda chews on succulent leaves and roots. The boys have been trying to collect gajjhara and Kuchla, from the forest. These are the special plants that Benda and his people use.

- i. What is shifting cultivation?
- ii. What is used to increase the fertility of the soil?
- iii. The spirit of "Loi-Lugi" stands for.

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i. Neo determinism
- ii. Human geography
- iii. Gravity

Q.5. Understanding based questions: -

- i. Differentiate between determinism and possibilism
- ii. Differentiate between Behavioral approach and Welfare approach

Part-3

Short Questions

Q6. Answer the following questions: -

- i. Describe the development of human geography as a distinct field of study.
- ii. Explain the two disputes related to the subject matter of geography.

Part-4

(Map work)

Q7. Locate the following locations on the India/World Political/Physical map.

In an outline map of the world locate and label the names of the countries where most development of the human geography took place.



R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th

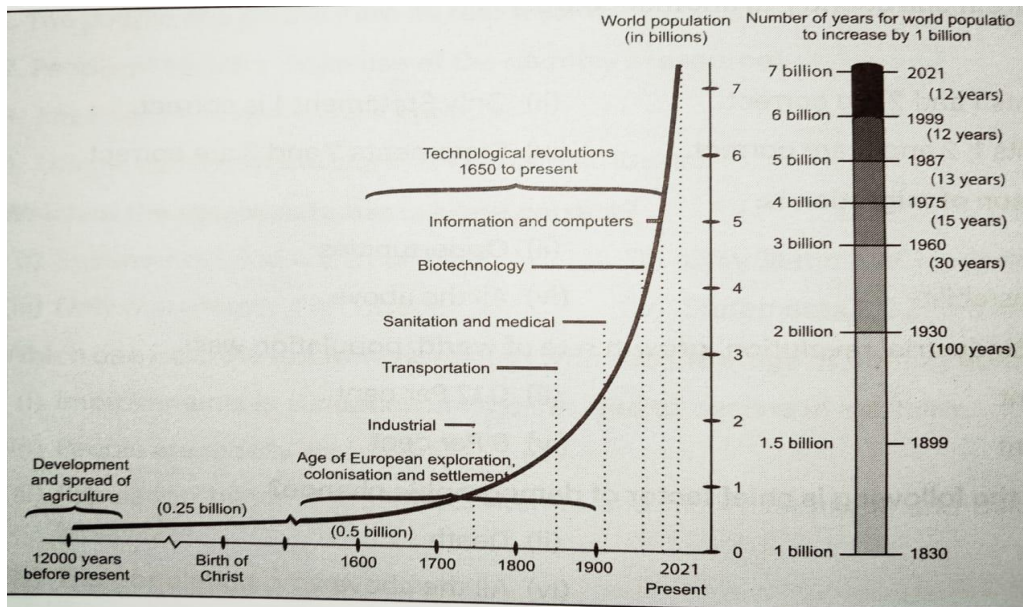
Ch. No.: 2 Ch. Name: The world distribution: Distribution, density and growth

For recapitulation & solving the assignment the students should refer to their NCERT book Human geography. (Ch-2)

Part-1 (Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1



1. How much time was taken for doubling of population from 2 to 4 billion?
2. When industrial revolution was started?
3. When the world population is expected to be 8 billion?

Part-2 Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Population
- ii) Density of population
- iii) Migration

Q.5. Understanding based questions: -

- i) Describe the physical factors that affects the distribution of population in the world.
- ii) What is demographic transition? Explain its four stages with example.

Part-3 Short Questions

Q6. Answer the following questions: -

- i) Describe the development of human geography as a distinct field of study.
- ii) Explain the two types of migration on the basis of time.

Part-4 (Map work)

Q7. Locate the following locations on the India/World Political/Physical map.

1. High density regions in the world
2. Countries of Europe and Africa with negative growth of population human geography took place.



R.E.D. Group of Schools
Revision Assignment Framework
Subject: Geography

Class: 12th

Ch. No.: 3

Ch. Name: Human development

For recapitulation & solving the assignment the students should refer to their NCERT book Human geography. (Ch-3)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Growth and development refers to changes over a period of time. The difference is that growth is quantitative and value neutral. It may have a positive and negative sign. This means that the change may be either positive or negative. Development means a qualitative change which is always value positive. This means that development cannot take place unless there is an increment or addition to the existing conditions. Development occurs when positive growth take place. Yet positive growth does not always lead to development. Development occurs when there is positive change in quality. For example, if the population of the city grows from one lakh to 2 lakhs over a period of time, we say the city has grown. However, if a facility like housing, provision of basic services and other characteristics remain the same, then this growth has not been accompanied by development.

- 1. Development means:**
- 2. _____ does not leads to development.**
- 3. What is growth?**

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Sustainable**
- ii) Equity**
- iii) Productivity**

Q.5. Understanding based questions: -

- i) Discuss the reason of inequality in development.**
- ii) Evaluate the history of measurement of human index.**

Part-3

Short Questions

Q6. Answer the following questions: -

- i) Describe the four pillars of human development with appropriate examples.**
- ii) Explain the merits and demerits of the human development.**

Part-4

(Map work)

Q7. Locate the following locations on the India/World Political/Physical map.

- 1. Show the four countries in each of four groups of HDI on a map in different colour.**
- 2. Locate six countries of Europe which are included in the group of high HDI.**



R.E.D. Group of Schools
Revision Assignment Framework
Subject: Geography

Class: 12th

Ch. No.: 4

Ch. Name: Primary activities

For recapitulation & solving the assignment the students should refer to their NCERT book Human geography. (Ch-4)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

A group of farmers form a co-operative society by pooling in their resources voluntarily for more efficient and profitable farming. Individual farms remain intact and farming is a matter of cooperative initiative. Co-operative societies help farmers, to procure all important inputs of farming, sell the products at the most favorable terms and help in processing of quality products at cheaper rates. Co-operative movement originated over a century ago and has been successful in many western European countries like Denmark, Netherlands, Belgium, Sweden, Italy etc. In Denmark, the movement has been so successful that practically every farmer is a member of a co-operative.

- i. What is cooperative society?
- ii. What are the benefits of cooperative society?
- iii. Where did the cooperative movement originate?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Agriculture
- ii) Primary activities
- iii) Productivity

Q.5. Understanding based questions: -

- i. Name any two areas of high latitudes in the world, where gathering economic activity is practiced
- ii. Explain any five features of nomadic herding in the world.

Part-3

Short Questions

Q6. Answer the following questions: -

- i. Name the two activities on which the earliest human beings were dependent for their sustenance.
- ii. Review any five measures adopted to solve the problems of Indian Agriculture?

Part-4

(Map work)

Q7. Locate the following locations on the India/World Political/Physical map.

- i. Distribution of the commercial livestock herding.
- ii. Areas of market gardening and cooperative farming.



Class: 12th

R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Ch. No.: 5

Ch. Name: Secondary activities

For recapitulation & solving the assignment the students should refer to their NCERT book Human geography. (Ch-5)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

High technology, or simply high-tech, is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development (R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character. Professional (white collar) workers make up a large share of the total workforce. These highly skilled specialists greatly outnumber the actual production (blue collar) workers. Robotics on the assembly line, computer -aided design (CAD) and manufacturing, electronic controls of smelting and refining processes, and the constant development of new chemical and specialized are called technologies pharmaceutical products are notable examples of a high-tech industry. Neatly spaced, low, modern, dispersed, office-plant-lab buildings rather than massive assembly structures, factories and storage areas mark the high-tech industrial landscape. Planned business parks for high-tech start-ups have become part of regional and local development schemes.

- i. Who are considered as red collar job?
- ii. What is the full form of CAD?
- iii. What does (Rand D) stands for?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Research
- ii) Secondary activities
- iii) Automation

Q.5. Understanding based questions: -

- i. What are the characteristics of foot loose industries?
- ii. Classify industries based on raw material used.

Part-3

Short Questions

Q6. Answer the following questions: -

- i. Africa has immense natural resources and yet it is industrially the most backward continent. Comment.
- ii. Why are high tech industries located in the periphery of metropolitan area?

Part-4

(Map work)

Q7. Locate the following locations on the India/World Political/Physical map.

- i. High technology industrial centres in UK.
- ii. High technology industrial centres in developing countries.



R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th

Ch. No.: 6

Ch. Name: Tertiary and quaternary activities

For recapitulation & solving the assignment the students should refer to their NCERT book Human geography. (Ch-6)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Services occur at many different levels. Some are geared to industry, some to people, and some to both industry and people, e.g. the transport systems. Low-order services, such as grocery shops and laundries, are more common and widespread than high-order services or more specialized ones like those of accountants, consultants and physicians. Services are provided to individual consumers who can afford to pay for them. For example, the gardener, the launderers and the barber do primarily physical labour. Teacher, lawyers, physicians, musicians and others perform mental labour. Many services have now been regulated. Making and maintaining highways and bridges, maintaining fire-fighting departments and supplying or supervising education and customer-care are among the important services most often supervised or performed by governments or companies.

1. What are the different levels of the services?
2. Who does physical labour?
3. Who perform mental labour?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Tertiary sector
- ii) Quaternary activities
- iii) Quinary activities

Q.5. Understanding based questions: -

- i. Name the fast emerging countries of medical tourism in the world.
- ii. Define medical tourism

Part-3

Short Questions

Q6. Answer the following questions: -

- i. What do you understand by Demand for transport?
- ii. Explain Tourism and Tourist regions?

Part-4

(Map work)

Q7. Locate the following locations on the India/World Political/Physical map.

- i. High technology industrial centres in UK.
- ii. High technology industrial centres in developing countries.



R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th

Ch. No.: 7

Ch. Name: Transport and communication

For recapitulation & solving the assignment the students should refer to their NCERT book Human geography. (Ch-7)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Europe has a large number of vehicles and a well-developed highway network. But highways face a lot of competition from railways and waterways. In Russia, a dense highway network is developed in the industrialised region west of the Urals with Moscow as the hub. The important Moscow-Vladivostok Highway serves the region to the east. Due to the vast geographical area, highways in Russia are not as important as railways. In China, highways criss-cross the country connecting all major cities such as Tsungtso (near Vietnam boundary), Shanghai (central China), Guangzhou (south) and Beijing (north). A new highway links Chengdu with Lhasa in Tibet. In India, there are many highways linking the major towns and cities. For example, National Highway No. 7 (NH 7), connecting Varanasi with Kanya Kumari, is the longest in the country. The Golden Quadrilateral (GQ) or Super Expressway is underway to connect the four metropolitan cities — New Delhi, Mumbai, Bangalore, Chennai, Kolkata and Hyderabad. In Africa, a highway joins Algiers in the north to Conakry in Guinea. Similarly, Cairo is also connected to Cape Town.

1. Which country has a wide large number of vehicles and a well-developed highway network?
2. Which city is connected to Cape Town?
3. Which highway network in Russia is highly densed?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Transport
- ii) Communication
- iii) Road

Q.5. Understanding based questions: -

1. Explain any three points of the economic significance of 'Trans- Siberian railway'.
2. Why the Rhine is the world's most heavily used waterway? Explain any three reasons.

Part-3

Short Questions

Q6. Answer the following questions: -

1. Classify means of communication on the basis of scale and quality into two categories. Explain any two characteristics of each category.
2. The Suez and the Panama Canal are two vital man-made navigation canals which serve as the gateways of commerce for both the Eastern and Western worlds.' In light of this statement, explain the economic significance of these two canals.

Part-4

(Map work)

Q7. Locate the following locations on the India/World Political/Physical map.

1. Panama Canal
2. Suez Canal
3. Main Ocean routes in the world



Class: 12th

R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Ch. No.: 8

Ch. Name: International trade

For recapitulation & solving the assignment the students should refer to their NCERT book Human geography. (Ch-8)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Europe has a large number of vehicles and a well-developed highway network. But highways face a lot of competition from railways and waterways. In Russia, a dense highway network is developed in the industrialised region west of the Urals with Moscow as the hub. The important Moscow-Vladivostok Highway serves the region to the east. Due to the vast geographical area, highways in Russia are not as important as railways. In China, highways criss-cross the country connecting all major cities such as Tsungtso (near Vietnam boundary), Shanghai (central China), Guangzhou (south) and Beijing (north). A new highway links Chengdu with Lhasa in Tibet. In India, there are many highways linking the major towns and cities. For example, National Highway No. 7 (NH 7), connecting Varanasi with Kanya Kumari, is the longest in the country. The Golden Quadrilateral (GQ) or Super Expressway is underway to connect the four metropolitan cities — New Delhi, Mumbai, Bangalore, Chennai, Kolkata and Hyderabad. In Africa, a highway joins Algiers in the north to Conakry in Guinea. Similarly, Cairo is also connected to Cape Town.

1. Which country has a wide large number of vehicles and a well developed highway network?
2. Which city is connected to Cape Town?
3. Which highway network in Russia is highly densed?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

- i) Export
- ii) Import
- iii) Trade

Q.5. Understanding based questions: -

1. Explain with examples the development of the international trade
2. On what basis can the port be classified? Describe each type in short.

Part-3

Short Questions

Q6. Answer the following questions: -

1. Examine the basis of the international trade.
2. Discuss the component of the international trade.

Part-4

(Map work)

Q7. Locate the following locations on the India/World Political/Physical map.

1. Main port of the world.
2. Two port of western and eastern coasts of India.



R.E.D. Group of Schools

Summer Holidays Homework

SESSION: 2023-24

CLASS – 11th to 12th

Subject: Pol. Science

Text Book: NCERT

○ **Syllabus Covered up to MAY END**

1. Contemporary World Politics

Chapter-1- The End of Bipolarity

Chapter-2- New Centers of Power

2. Politics in India Since Independence

Chapter-1- Challenges of Nation Building

Chapter-2- Planned Development

Chapter-3- India's Foreign Policy

○ **List of all new concepts taught up to MAY END**

- Disintegration of Soviet Union
- Arab Spring
- Gulf War, Afghan War
- Different organisations of World
- Conflicts and efforts for peace democratization
- Challenges of Nation Building
- NITI Aayog and its objectives
- Changing nature of India's economic Development
- India's Foreign Policy and its principles and objectives

○ **Formative Assessment based Homework:**

Section-A- Creative Project/ Working model/ Inquiry based project

Section-B- Map Work

Section-C- Chart Work

Section-D- Current Affairs

Section-E- Learning and Pre-reading Homework

○ **Summative Assessment based Homework:**

Section-F- Chapter-wise Assignments

○ **Tools required for doing Homework:**

- NCERT Text Book
- Notebook
- A4 Sheets
- Chart papers & Map
- Resources as per activity

o **Instruction/Guidelines for Formative Assessment based Homework:**

o **Section-A (Creative Project/ Working model/ enquiry based project)**

<i>Topic</i>	<i>Roll No.</i>
End of Bipolarity	1 to 10
India's External Relations	11 to 20
Cotemporary Centres of Power	21 to 30
Challenge of Nation Building	31 to 32

o **Materials required as per project.**

o **Steps to prepare:**

- Read the chapter from book.
- Search from Internet.
- Prepare the model.

o **Section-B- (Map Work)**

o Locate the countries of Eastern alliance and Western alliance on world map and learn their location.

o Take a current political map of India (showing outlines of states) and mark the location of the following Princely States:

- 1) Junagadh
- 2) Manipur
- 3) Mysore
- 4) Gwalior

o **Section-C (Chart Work)**

o **Make chart on given topic.**

International Organisations

OR

India's Foreign Policy

o **Section-D (Current Affairs)**

Collecting current news of India's foreign policy /New Policies form by Govt. for social welfare of people/Status of Russia-Ukraine crisis.

o **Section-E (Learning and Pre-reading homework)**

- 1) **Learning Homework:** Learn chapter covered till May month from NCERT Text Book.
- 2) **Pre-Reading Homework:** Read ch-5 Contemporary South Asia of NCERT Text Book.

o **Section-F (Revision assignment)**



R.E.D. Group of Schools

Revision Assignment -1

Class: 12th

Chapter Name: The End of Bipolarity

Subject: Political Science

Chapter No.: 1

For recapitulation & solving the assignment the students should refer to their NCERT text book of Political Science (Ch-1 The End of Bipolarity)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

The Cold War threatened to divide the world into two alliances. Under these circumstances, many of the newly independent countries, after gaining their independence from the colonial powers such as Britain and France, were worried that they would lose their freedom as soon as they gained formal independence. Cracks and splits within the western and eastern alliances were quick to appear headed by the USA and the USSR respectively. Communist China quarreled with the USSR towards the late 1950s, and, in 1969, they fought a brief war over a territorial dispute.

- Q.1 Which country had a brief war with the USSR for territory?
a) USA b) Japan c) China d) North Korea
- Q.2 Which former superpower headed the eastern alliances?
a) UK b) Greece c) USA d) USSR
- Q.3 Which event of the world has threatened to divide the world into two alliances?
a) Arenas b) Iraq Invasion c) Cold War d) Cuban Missile Crisis

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4 Define the following terms:-
i) Bipolarity ii) Shock Therapy iii) Arab Spring
- Q.5 Application based question:-
(i) Tell the main points of current relations between India-Russia.
(ii) Explain the impact of the end of bipolarity on India.

Part-3

Picture Based Questions

Q.6. Go through the following picture and answer the following questions:-

- (i) Name the person who is shown in the above image
- (ii) What was the role played by him?
- (iii) This person in planning against whom?
- (iv) What were the qualities of the union for which he is planning?





R.E.D. Group of Schools

Revision Assignment -2

Class: 12th

Chapter Name: Contemporary Centers of Power

Subject: Political Science

Chapter No.: 2

For recapitulation & solving the assignment the students should refer to their NCERT text book of Political Science (Ch-2 Contemporary Centers of Power)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

ASEAN, The Association of South East Asian Nations was formed on 8 August 1967 in Bangkok by Indonesia, Malaysia, Philippines, Singapore and Thailand, only to be joined by Brunei Darussalam in 1984, Vietnam in 1995, Laos & Myanmar in 1997 and Cambodia in 1999.

ASEAN was formed to speed up the growth of the economy, social progress & development of culture through helping each other out in equality and partnership while promoting peace & stability throughout the region, having respect for justice and the rule of the law amongst the countries in the South East Asian region, to strengthen the foundation for community of Southeast Asian nations which is prosperous and peaceful.

The activities carried out by ASEAN are planned by the different member countries. As the environmental pollution is an issue, member countries plan activities that deal with environmental issues, have conferences, hold camps and hold a Green Week in conjunction with World Environment Day, to name a few. The representatives from the member countries hold meetings throughout the year in the various countries around the globe. However, most of these meetings are held in Asia. They also take part in courses and workshops on transport, terrorism and suChapter These meetings are usually based on the Transnational Issues that ASEAN is concerned about. These Transnational Issues are the Environment, Trans boundary Haze, Transnational Crime & Terrorism, Legal Cooperation, Immigration, Drugs and Civil Services.

- Q.1 Define the nature of ASEAN.
- Q.2 Name the three pillars of ASEAN.
- Q.3 Write the name of member countries of ASEAN.
- Q.4 How ASEAN is dealing with territorial disputes?

Part-2

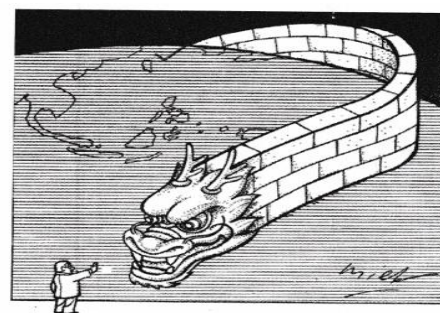
Subject Specific conceptual definitions & Application based Questions

- Q.5 Define the following terms:-
 - i) ASEAN
 - ii) Marshall Plan
 - iii) EU
- Q.6 Application based question:-
 1. Why new centers of power are considered as the important players of the South Asia?
 2. How you consider India as a new center of power?

Part-3

Picture Based Questions

- Q.7 Go through the following picture and answer the following questions:-
 - (i) The given cartoon is related to which country?
 - (ii) Which two symbols in this cartoon helped in identifying the country?
 - (iii) What message does this cartoon convey to the world?





R.E.D. Group of Schools

Revision Assignment -3

Class: 12th

Chapter Name: Challenge of Nation Building

Subject: Political Science

Chapter No.: 1

For recapitulation & solving the assignment the students should refer to their NCERT text book of Political Science (Ch-1 Challenge of Nation Building)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

The interim government took a firm stance against the possible division of India into smaller principalities of different sizes. The Muslim League opposed the Indian National Congress and took the view that the States should be free to adopt any course they liked. Sardar Patel, India's Deputy Prime Minister and the Home Minister during the crucial period, immediately after Independence, played a historic role in negotiating with the rulers of Princely States in bringing most of them into the Indian Union.

- Q.1 Which government has been referred to as the interim government?
Q.2 Why did the Muslim League oppose the Indian National Congress?
Q.3 What makes the role of Sardar Patel a historic one? Explain.

Part-2

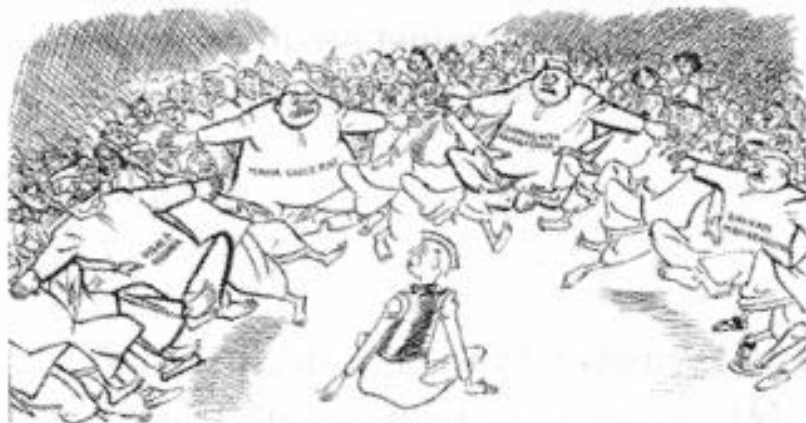
Subject Specific conceptual definitions & Application based Questions

- Q.4 Define the following terms:-
i) 'Tryst with destiny'
ii) States Reorganisation Commission
iii) Princely states
- Q.5 Application based question:-
1. Describe briefly any four problems faced in the process of partition of India.
2. Explain three challenges which independent India faced during the process of Nation Building.

Part-3

Picture Based Questions

- Q.6 Go through the following picture and answer the following questions:-



- (i) Identify the person in the centre of the cartoon and mention the challenge surrounding him.
(ii) What does the picture actually refer?
(iii) How did India avoid all these conflicts?



R.E.D. Group of Schools

Revision Assignment -3

Class: 12th

Chapter Name: Planned Development

Subject: Political Science

Chapter No.: 2

For recapitulation & solving the assignment the students should refer to their NCERT text book of Political Science (Ch-2 Planned Development)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

It was in Bihar that the food-crisis was most acutely felt as the state faced a near-famine situation. The food shortage was significant in all districts of Bihar, with 9 districts producing less than half of their normal output. Five of these districts, in fact, produced less than one-third of what they produced normally. Food deprivation subsequently led to acute and widespread malnutrition. It was estimated that the calorie intake dropped from 2200 per capital per day to as low as 1200 in many regions of the state (as against the requirement of 2450 per day for the average person.). Death rate in Bihar in 1987 was 34% higher than the number of deaths that occurred in the following year. Food prices also hit a high in Bihar during the year, even when compared to other states. For wheat and rice the prices in the state were twice or more than their prices in more prosperous Punjab. The government had 'hoarding' policies that prohibited trade of food across states* which reduced the availability of food in Bihar dramatically. In situations such as this, the poorest sections of the state are most affected.

- Q.1 What is food-crisis?
Q.2 What were the reasons of food crisis in Bihar?
Q.3 What do you understand by 'Zoning' policies of government?

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4 Define the following terms:-
i) Bombay Plan
ii) India's New Economic Policy
iii) Decentralised Planning
- Q.5 Application based question:-
1. Which are the two models of development? Which model of development was adopted by India?
2. Explain any two merits and two demerits each of the Green Revolution.

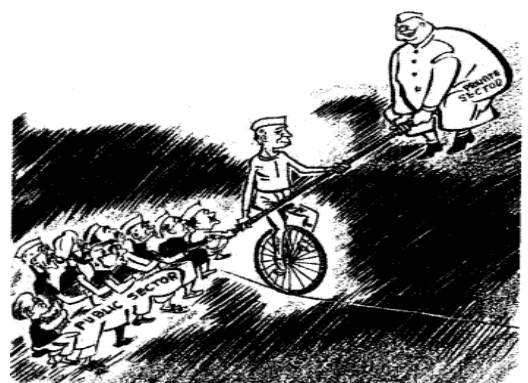
Part-3

Picture Based Questions

Q6. Go through the following picture and answer the following questions:-

Identify and name the person who is holding the balancing beam between the public sector and the private sector.

- (i) Why has a big tilt towards the public sector been shown in the cartoon?
(ii) How did the over-emphasis on public sector adversely affect the Indian economy?





R.E.D. Group of Schools

Revision Assignment -3

Class: 12th

Chapter Name: India's External Relation

Subject: Political Science

Chapter No.: 3

For recapitulation & solving the assignment the students should refer to their NCERT text book of Political Science (Ch-3 India's External Relation)

Part-1

(Case Study Question/Activity based Question)

Instruction: Read the following passage and answer the question no. 1, 2 & 3.

Case Study- 1

Read the passage given below carefully and answer the questions:

What does independence consist of? It consists fundamentally and basically of foreign relations. That is the test of independence. All else is local autonomy. Once foreign relations go out of your hands into the charge of somebody else, to that extent and in that measure you are not independent. — Jawaharlal Nehru

- Q.1 What does the extract signify?
Q.2 What is not an independence as per Pt. J.L. Nehru?
Q.3 What did India do to maintain its Sovereignty?

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4 Define the following terms:-
i) India's nuclear policy
ii) Consensus in foreign policy matters
iii) Non-Alignment
- Q.5 Application based question:-
1. Identify any two aspects of India's foreign policy that you would like to retain and two that you would like to change, if you were to become a decision maker. Give reasons to support your position.
2. Does India's foreign policy reflect her desire to be an important regional power? Argue your case with the Bangladesh war of 1971 as an example.

Part-3

Picture Based Questions

Q.6. Go through the following picture and answer the following questions:-



- (i) What message does this cartoon convey?
(ii) Which year is being shown here?



R.E.D. Group of Schools

Summer Holidays Homework

Session: 2023-24

Class –12th

Text Book: NCERT Text Book

Subject: Mathematics

1. Syllabus Covered upto MAY END

- Chapter No.- 1..... Chapter Name:- Relation and Function
- Chapter No.- 2..... Chapter Name:- I.T.F
- Chapter No.- 3..... Chapter Name:- Matrices
- Chapter No.- 4..... Chapter Name:- Determinants
- Chapter No.- 5..... Chapter Name:- Differentiation

2. List of all new concepts taught upto MAY END

- Number of reflexive relation, Symmetric relation
- Number of one-one function, onto function
- Properties of I.T.F
- Formula to find area of triangle using determinants
- Derivative of a function with respect to another function

3. Formative Assessment based Homework:

- **Section-A**-Creative Project/ Model
- **Section-B**- Problem solving activities.
- **Section-C**- Mental Maths problems.
- **Section-D**- Lab practicals

Section-A-Creative Project/ Models

Topic	Roll .No
1. Equivalence Relation	1 to 8
2. Formulas of I.T.F	9 to 16
3. Matrices (types, notation and properties)	17 to 24
4. Continuity and differentiability	25 to 32
5. Number of solution of system of linear equations by real life examples	33 to 40

Make a project files according to the given topics

o **Section-B- Problem solving activity.**

Solve the following real life based problems.

- Show that the function $f(x) = x^3 - 2x^2 + 2x$, $x \in \mathbb{Q}$ is increasing on \mathbb{Q} .

- The daily profit, P , of an oil refinery is given by

$$P = 8x - 0.02x^2,$$

- where x is the number of barrels of oil refined. How many barrels will give maximum profit and what is the maximum profit?

o **Section-C- Activities related to Mental Maths.**

Mental Maths problems:

Q1. Look at this series: 2, 1, (1/2), (1/4), ... What number should come next?

Q2. Look at this series: 22, 21, 23, 22, 24, 23, ... What number should come next?

Q3. Complete the series 1,6,13,22,33,..

Q4. Complete the Series 34,45,56,67.....

Q5. a,b,c are in H.P. if a,b,c are in

Q6. If E is the universal set and $A = B \cup C$, then the set $E - (E - (E - (E - (E - A))))$ is same as the set

Q7. Which one of the following is not a prime number?

- (a) 31 (b) 61 (c) 71 (d) 91

Q8. What least number must be added to 1056, so that the sum is completely divisible by 23?

- (a) 2 (b) 3 (c) 18 (d) 21

Q9. The sum of first five prime numbers is:

- (a) 11 (b) 18 (c) 26 (d) 28

Q10. The smallest 3 digit prime number is:

- (a) 101 (b) 103 (c) 109 (d) 113

➤ **Section-D-Lab Practicals .**

❖ Make the following lab activities in lab manual .

1. A relation R is symmetric but Neither Reflexive Not Transitive.
2. A Function which is One-One but not Onto
3. Continuity at a Point

➤ **Section-E- Revision assignments (Chapter wise assignments).**



R.E.D. Group of Schools

Revision Assignment -1

Class: 12th
Ch. No.: Relation and function

Subject: Maths
Ch. Name: 1

For recapitulation & solving the assignment the students should refer to their NCERT text book of Maths

Part-1

Multiple choice Questions (only one option is correct)

- If R is a relation on the set $A = \{1, 2, 3\}$ given by $R = \{(1, 1), (2, 2), (3, 3)\}$, then R is
 - reflexive
 - symmetric only
 - transitive only
 - equivalence relation
- If a function $f: \mathbb{R} \rightarrow \mathbb{R}$ is defined by $f(x) = x^2 + 1$, then pre-images of 17 and -3 respectively, are
 - $\emptyset, \{4, -4\}$
 - $\{3, -3\}, \emptyset$
 - $\{4, -4\}, \emptyset$
 - $\{4, -4\}, \{2, -2\}$
- If a function $f: \mathbb{C} \rightarrow \mathbb{C}$ is defined $f(x) = 3x^2 - 1$, where \mathbb{C} is the set of complex numbers, then the pre-images of (-28) are
 - $3, -3$
 - $3i, -3i$
 - $3i$ only
 - $-3i$ only
- If a function $f: [2, \infty) \rightarrow \mathbb{R}$ is defined by $f(x) = x^2 - 4x + 5$, then the range of f is
 - \mathbb{R}
 - $[1, \infty)$
 - $[4, \infty)$
 - $[5, \infty)$
- If function $f: \mathbb{R} \rightarrow \mathbb{R}$ is defined by $f(x) = \sin x$ and function $g: \mathbb{R} \rightarrow \mathbb{R}$ is defined by $g(x) = x^2$, then $(f \circ g)(x)$ is
 - $x^2 \sin x$
 - $(\sin x)^2$
 - $\sin x^2$
 - $(\sin x)/x^2$

Part - II

(Integer Type Questions)

- The number of bijective functions from set A to itself when A contains 106 elements is
- The maximum number of equivalence relations on the set $A = \{1, 2, 3\}$ are
- Let $E = \{1, 2, 3, 4\}$ and $F = \{1, 2\}$ Then, the number of onto functions from E to F is
- If the set A contains 5 elements and the set B contains 6 elements, then the number of one-one and onto mappings from A to B is

Part - III

(Application Based Questions)

Answer the following questions by applying acquired knowledge, facts, techniques and rules

- State the reason for the relation R in the set $\{1, 2, 3\}$ given by $R = \{(1, 2), (2, 1)\}$ not to be transitive.
- Let $f: \mathbb{R} - \{-4/3\} \rightarrow \mathbb{R}$ be a function given by $f(x) = 4x/(3x+4)$. Show that f is invertible with $f^{-1}(x) = 4x/(4-3x)$
- $F(x) = x + 7$ and $g(x) = x - 7, x \in \mathbb{R}$, find $(f \circ g)(7)$.

Part - IV

(Reason and Numerical Based Questions)

- Let \mathbb{N} be the set of natural numbers and relation R on \mathbb{N} be defined by $R = \{(x, y): x, y \in \mathbb{N}, x + y + 10\}$. Determine whether the above relation is reflexive, symmetric and transitive.
- Let $f: X \rightarrow Y$ be a function. Define a relation R in X given by $R = \{(a, b): f(a) = f(b)\}$. Show that R is an equivalence relation.

Part – V

(Case Study Based Questions)

15. A relation R in a set A is called Reflexive: if $(a, a) \in R$, for every $a \in A$ Symmetric: if $(a_1, a_2) \in R$, implies that $(a_2, a_1) \in R$, for all $a_1, a_2 \in R$ Transitive: if $(a_1, a_2) \in R, a_2, a_3 \in R$ implies that $a_1, a_3 \in R$ for all $a_1, a_2, a_3 \in A$.

Based on the above information, answer the following questions

1. Relations R in the set $A = \{1, 2, 3, \dots, 13, 14\}$ defined as $R = \{(x, y) : 3x - y = 0\}$
 - (a) Reflexive but not symmetric nor transitive
 - (b) Neither Reflexive nor symmetric nor transitive
 - (c) Reflexive and symmetric but not transitive
 - (d) Equivalence relation
2. Relation R in the set Z of all integers defined as $R = \{(x, y) : x - y \text{ is an integer}\}$
 - (a) Equivalence Relation
 - (b) Reflexive but neither symmetric nor transitive
 - (c) Reflexive and transitive but not symmetric
 - (d) Symmetric but not transitive and reflexive
3. Relation R in the set A of human beings in a town $R = \{(x, y) : x \text{ is the father of } y\}$
 - (a) Transitive but not reflexive nor symmetric
 - (b) Reflexive but not symmetric nor transitive
 - (c) Neither reflexive nor symmetric nor transitive
 - (d) Equivalence Relation
4. Relation R in the set A of human beings in a town $R = \{(x, y) : x \text{ is wife of } y\}$
 - (a) Neither reflexive nor symmetric but transitive
 - (b) Reflexive not symmetric not transitive
 - (c) Equivalence Relation
 - (d) Symmetric but not reflexive not transitive

Part – VI

(Analysis Based Question)

Answer the following question by organizing and integrating the information.

16. Consider $f : R_+ \rightarrow [-9, \infty)$ given by $f(x) = 5x^2 + 6x - 9$. Prove that f is invertible with

$$f^{-1}(y) = \left(\frac{\sqrt{54 + 5y} - 3}{5} \right).$$

Learning Homework: Learn all definitions & formulas from Page No. 1.1 to 1.5 of Elements Book.

Pre-Reading Homework: Read Page no 1.1 to 1.5 of Elements Book and understand their meaning



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Revision Assignment-2

Class: 12th

Ch. Name: Inverse Trigonometric Function

Subject: Maths

Ch. No.: 2

For recapitulation & solving the assignment the students should refer to their NCERT text book of Maths

Part-1

Multiple choice Questions (only one option is correct)

- The equation $2\cos^{-1}x + \sin^{-1}x = \frac{11\pi}{6}$ has
 - No solution
 - Only one solution
 - Two solutions
 - Three solutions
- If $\tan^{-1}x + \tan^{-1}y + \tan^{-1}z = \pi$, then $x+y+z$ is equal to
 - xyz
 - 0
 - 1
 - $2xyz$
- If $\tan^{-1}\frac{a+x}{a} + \tan^{-1}\frac{a-x}{a} = \frac{\pi}{6}$, then $x^2 =$
 - $2\sqrt{3}a$
 - $\sqrt{3}a$
 - $2\sqrt{3}a^2$
 - None of these
- Find the value of $\cot^{-1}\frac{xy+1}{x-y} + \cot^{-1}\frac{yz+1}{y-z} + \cot^{-1}\frac{zx+1}{z-x} =$
 - 0
 - 1
 - $\cot^{-1}x + \cot^{-1}y + \cot^{-1}z$
 - None of these
- If $\alpha = \tan^{-1}\left(\frac{\sqrt{3}x}{2y-x}\right)$, $\beta = \tan^{-1}\left(\frac{2x-y}{\sqrt{3}y}\right)$, then $\alpha - \beta =$
 - $\frac{\pi}{6}$
 - $\frac{\pi}{3}$
 - $\frac{\pi}{2}$
 - $-\frac{\pi}{3}$

Part - II

(Integer Type Questions)

- Find the positive integral solution of the equation $\tan^{-1}x + \cos^{-1}\frac{y}{\sqrt{1+y^2}} = \sin^{-1}\frac{3}{\sqrt{10}}$
- Find the number of real solution of the equation $\sqrt{1+\cos 2x} = \sqrt{2} \sin^{-1}(\sin x)$, $-\pi \leq x \leq \pi$
- If $\sin^{-1}(x^2 - 7x + 12) = n\pi$, $\forall n \in \mathbb{I}$, then find x .
- If $6\sin^{-1}(x^2 - 6x + 8.5) = \pi$, then find x .



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Revision Assignment-3

Class: 12th

Ch. Name: Matrix and Determinants

Subject: Maths

Ch. No.: 3

For recapitulation & solving the assignment the students should refer to their NCERT text book of Maths

Part-1

Multiple choice Questions (only one option is correct)

1. If $A = \begin{bmatrix} \cos \alpha & \sin \alpha \\ -\sin \alpha & \cos \alpha \end{bmatrix}$, then $A^2 =$

(a) $\begin{bmatrix} \cos 2\alpha & \sin 2\alpha \\ \sin 2\alpha & \cos 2\alpha \end{bmatrix}$

(b) $\begin{bmatrix} \cos 2\alpha & -\sin 2\alpha \\ \sin 2\alpha & \cos 2\alpha \end{bmatrix}$

(c) $\begin{bmatrix} \cos 2\alpha & \sin 2\alpha \\ -\sin 2\alpha & \cos 2\alpha \end{bmatrix}$

(d) $\begin{bmatrix} -\cos 2\alpha & \sin 2\alpha \\ -\sin 2\alpha & -\cos 2\alpha \end{bmatrix}$

2. If $A = \begin{bmatrix} 1 & 2 & 3 \\ -2 & 3 & -1 \\ 3 & 1 & 2 \end{bmatrix}$ and I is a unit matrix of 3rd order, then $(A^2 + 9I)$ equals

(a) $2A$

(b) $4A$

(c) $6A$

(d) None of these

3. If $A = \begin{bmatrix} 1 & \tan \theta/2 \\ -\tan \theta/2 & 1 \end{bmatrix}$ and $AB = I$, then $B =$

(a) $\cos^2 \frac{\theta}{2} \cdot A$

(b) $\cos^2 \frac{\theta}{2} \cdot A^T$

(c) $\cos^2 \frac{\theta}{2} \cdot I$

(d) None of these

4. Let $A = \begin{bmatrix} 1 & \sin \theta & 1 \\ -\sin \theta & 1 & \sin \theta \\ -1 & -\sin \theta & 1 \end{bmatrix}$, where $0 \leq \theta \leq 2\pi$. Then,

(a) $\text{Det}(A) = 0$

(b) $\text{Det}(A) \in (2, \infty)$

(c) $\text{Det}(A) \in (2, 4)$

(d) $\text{Det}(A) \in [2, 4]$

5. If $\begin{vmatrix} 2x & 5 \\ 8 & x \end{vmatrix} = \begin{vmatrix} 6 & 5 \\ 8 & 3 \end{vmatrix}$, then $x =$

(a) 3

(b) ± 3

(c) ± 6

(d) 6

Part - II

(Integer Type Questions)

6. Find the trace of the matrix $A = \begin{bmatrix} 1 & -5 & 7 \\ 0 & 7 & 9 \\ 11 & 8 & 9 \end{bmatrix}$.

7. Find the number of possible matrices of order 3×3 with each entry 2 or 0.

8. Find the value of given determinant $\begin{vmatrix} 5^2 & 5^3 & 5^4 \\ 5^3 & 5^4 & 5^5 \\ 5^4 & 5^5 & 5^6 \end{vmatrix}$

9. Evaluate: $\begin{vmatrix} \log_3 512 & \log_4 3 \\ \log_3 8 & \log_4 9 \end{vmatrix} \times \begin{vmatrix} \log_2 3 & \log_8 3 \\ \log_3 4 & \log_3 4 \end{vmatrix}$

Part – III

(Application Based Questions)

Answer the following questions by applying acquired knowledge, facts, techniques and rules

10. If $A = \begin{bmatrix} 2 & 3 \\ 5 & -2 \end{bmatrix}$, write A^{-1} in terms of A.

11. Let A be a square matrix of order 3 x 3. Write the value of $|2A|$, where $|A|=4$.

12. Find the maximum value of $\begin{vmatrix} 1 & 1 & 1 \\ 1 & 1 + \sin \theta & 1 \\ 1 & 1 & 1 + \cos \theta \end{vmatrix}$

Part – IV

(Reason and Numerical Based Questions)

13. If $\begin{bmatrix} xy & 4 \\ z+6 & x+y \end{bmatrix} = \begin{bmatrix} 8 & \omega \\ 0 & 6 \end{bmatrix}$, find the values of x, y, z and ω .

14. Verify that $A = \begin{bmatrix} 2 & 3 \\ 1 & 2 \end{bmatrix}$ satisfies the equation $A^3 - 4A^2 + A = O$.

Part – V

(Case Study Based Questions)

15. If $A=[a_{ij}]$ $m \times n$ matrix, then the matrix obtained by interchanging the rows and columns of A is called the Transpose of A.

A square matrix $A=[a_{ij}]$ is said to be symmetric if $A^T=A$ for all possible values of i and j.

A square matrix $A=[a_{ij}]$ is said to be skew symmetric if $A^T = -A$ for all possible values of i and j.

Based on the above information answer the following questions:

(i) Find the transpose of matrix: $\begin{bmatrix} 5 \\ \frac{1}{2} \\ -1 \end{bmatrix}$

(a) $\begin{bmatrix} -1 \\ \frac{1}{2} \\ 5 \end{bmatrix}$

(b) $\begin{bmatrix} -1 \\ \frac{1}{5} \\ 2 \end{bmatrix}$

(c) $\begin{bmatrix} 5 & \frac{1}{2} & -1 \end{bmatrix}$

(d) None of these

(ii) Using transpose properties, $(ABC)^T$ is equal to:

(a) $CTBTA^T$

(b) $ATBTC^T$

(b) (c) $ATCTB^T$

(d) $BTATC^T$

(iii) For any square matrix A with real number entries:

(a) $A+A^T$ is symmetric and $A-A^T$ is a skew-symmetric matrix.

(b) $A+A^T$ is skew-symmetric and $A-A^T$ is a symmetric matrix.

(c) $A+A^T$ is a symmetric as well as a skew-symmetric matrix.

(d) $A-A^T$ is a skew-symmetric as well as a symmetric matrix.

(iv) Any square matrix can be expressed as:

(a) Difference of a symmetric and a skew-symmetric matrix.

(b) Sum of two symmetric matrices.

(c) Sum of a symmetric and a skew-symmetric matrix.

(d) Sum of two skew-symmetric matrices.

Part – VI

(Analysis Based Question)

Answer the following question by organizing and integrating the information.

16. If a, b and c are real numbers and $\Delta = \begin{vmatrix} b+c & c+a & a+b \\ c+a & a+b & b+c \\ a+b & b+c & c+a \end{vmatrix} = 0$ then show that either $a + b + c = 0$ or $a = b = c$.



RED GROUP OF SCHOOLS

Revision Assignment-4

Class: 12th

Ch. Name: Continuity and differentiability

Subject: Maths

Ch. No.: 4

For recapitulation & solving the assignment the students should refer to their NCERT text book of Maths

Part-1

Multiple choice Questions (only one option is correct)

- Let $f(x) = |x|$ and $g(x) = |x^3|$, then
 - $f(x)$ and $g(x)$ both are continuous at $x = 0$
 - $f(x)$ and $g(x)$ both are differentiable at $x = 0$
 - $f(x)$ is differentiable but $g(x)$ is not differentiable at $x = 0$
 - $f(x)$ and $g(x)$ both are not differentiable at $x = 0$
- The function $f(x) = \sin^{-1}(\cos x)$ is
 - discontinuous at $x = 0$
 - discontinuous at $x = 0$
 - differentiable at $x = 0$
 - none of these
- The set of points where the function $f(x) = x|x|$ is differentiable is
 - $(-\infty, \infty)$
 - $(-\infty, 0) \cup (0, \infty)$
 - $(0, \infty)$
 - $[0, \infty)$
- If $f(x) = \begin{cases} \frac{|x+2|}{\tan^{-1}(x+2)}, & x \neq -2 \\ 2, & x = -2 \end{cases}$, then $f(x)$ is
 - continuous at $x = 2$
 - not continuous at $x = -2$
 - differentiable at $x = -2$
 - continuous but not derivable at $x = -2$
- Let $f(x) = (x+|x|)|x|$. Then, for all x
 - f is continuous
 - f differentiable for some x
 - f' is continuous
 - f'' is continuous

Part - II

(Integer Type Questions)

- Find the value of $f(0)$, so that the given function $f(x) = \frac{(27-2x)^{1/3} - 3}{9-3(243+5x)^{1/5}}$ ($x \neq 0$) is continuous.
- Find the value of $f(0)$ so that the given function $f(x) = \frac{2-(256-7x)^{1/8}}{(5x+32)^{1/5} - 2}$, $x \neq 0$ is continuous everywhere.
- Find the value of k such that the given function $f(x) = \begin{cases} \frac{\sin 3x}{x}, & x \neq 0 \\ \frac{k}{2}, & x = 0 \end{cases}$ is continuous at $x = 0$.
- Find the value of $f(0)$, If the function $f(x) = \frac{2x - \sin^{-1} x}{2x + \tan^{-1} x}$ is continuous at each point of its domain.

Part – III

(Application Based Questions)

Answer the following questions by applying acquired knowledge, facts, techniques and rules

10. Determine the value of 'k' for which the following function is continuous at $x = 3$:

$$f(x) = \begin{cases} \frac{(x+3)^2 - 36}{x-3}, & x \neq 3 \\ k, & x = 3 \end{cases}$$

11. For what value of k is the following function continuous at $x = 2$? $f(x) = \begin{cases} 2x+1; & x < 2 \\ k; & x = 2 \\ 3x-1; & x > 2 \end{cases}$

12. Find the value of c in Rolle's theorem for the function

$$f(x) = x^3 - 3x \text{ in } [-\sqrt{3}, 0].$$

Part – IV

(Reason and Numerical Based Questions)

13. Locate the point of discontinuity (if any) for the functions : $f(x) = \begin{cases} 2x-1 & \text{if } x < 2 \\ \frac{3x}{2} & \text{if } x \geq 2 \end{cases}$

14. The function $f(x) = \begin{cases} \frac{\sin 3x}{x}, & x \neq 0 \\ \frac{k}{2}, & x = 0 \end{cases}$ is continuous at $x = 0$, find the value of k .

Part – V

(Case Study Based Questions)

15. A function is continuous at $x=c$ if the function is defined at $x=c$ and if the value of the function at $x = c$ equals the limit of the function at $x=c$. i.e, $\lim_{x \rightarrow c} f(x) = f(c)$.

If f is not continuous at c , we say f is discontinuous at c , and c is called a point of discontinuity of f . Based on the above information answer the following questions:

i. The number of points of discontinuity of $f(x) = [x]$ in $[3,7]$ is:

- (a) 4 (b) 5 (c) 6 (d) 8

ii. Suppose f and g be two real functions continuous at a real number c then:

- (a) $f + g$ is continuous at $x = c$
(b) $f + g$ is discontinuous at $x = c$
(c) $f + g$ may or may not continuous at $x = c$
(d) None of these

iii. The value of k so that the given function $f(x)$ is continuous at $x=5$.

$$f(x) = \begin{cases} kx + 1; & x \leq 5 \\ 3x - 5; & x \geq 5 \end{cases}$$

- (a) 3/5 (b) 1/5 (c) 4/5 (d) 9/5

$$f(x) = \begin{cases} kx^2; & x \leq 2 \\ 3; & x \geq 2 \end{cases}$$

iv. The value of k so that the given function $f(x)$ is continuous at $x = 2$

- (a) 1 (b) 1/4 (c) 3/4 (d) 11

Part – VI

(Analysis Based Question)

Answer the following question by organizing and integrating the information.

16. Find the value of a and b such that the function $f(x)$ defined by $f(x) = \begin{cases} 5; & \text{if } x \leq 2 \\ ax+b; & \text{if } 2 < x < 10 \\ 21; & \text{if } x \geq 10 \end{cases}$ is a continuous function.



RED GROUP OF SCHOOLS

Revision Assignment-5

Class: 12th

Ch. Name: Differentiation

Subject: Maths

Ch. No.: 5

For recapitulation & solving the assignment the students should refer to their NCERT text book of Maths

Part-1

Multiple choice Questions (only one option is correct)

1. $\frac{d}{dx} \log \tan \left(\frac{\pi}{4} + \frac{x}{2} \right) =$

- (a) cosec x (b) -cosec x (c) sec x (d) -sec x

2. If $x = t^2$, $y = t^3$, then $\frac{dy}{dx} =$

- (a) $3/2$ (b) $3/4t$ (c) $3/2t$ (d) $3t/2$

3. The derivative of $\sec^{-1} \left(\frac{1}{2x^2 + 1} \right)$ with respect to $\sqrt{1+3x}$ at $x = 1/3$.

- (a) does not exist (b) 0
(c) $1/2$ (d) $1/3$

4. If $\sin(x + y) = \log(x + y)$, then $\frac{dy}{dx} =$

- (a) 2 (b) -2 (c) 1 (d) -1

5. Let $U = \sin^{-1} \left(\frac{2x}{1+x^2} \right)$ and $V = \tan^{-1} \left(\frac{2x}{1-x^2} \right)$, then $\frac{dU}{dV} =$

- (a) $1/2$ (b) x (c) $\frac{1-x^2}{1+x^2}$ (d) 1

Part - II

(Integer Type Questions)

6. Given $y = \sin 2x$, then find dy/dx at $x = 3$

7. If $x^y \cdot y^x = 16$, then find the value of dy/dx at $(2, 2)$

8. If $y = (1+x)(1+x^2)(1+x^4) \dots (1+x^{2^n})$, then find the value of dy/dx at $x = 0$

9. Find the value of c for which the Mean value theorem holds for the function $f(x) = \log_e x$ on the interval $[1, 3]$.

Part - III

(Application Based Questions)

Answer the following questions by applying acquired knowledge, facts, techniques and rules

10. If $x = a \left(\cos t + \log \tan \frac{t}{2} \right)$ and $y = a \sin t$, find the value of $\frac{dy}{dt}$ at $t = \frac{\pi}{4}$.

11. Differentiate $\tan^{-1} \left(\frac{1 + \cos x}{\sin x} \right)$ with respect to x .

12. If $x = a(2\theta - \sin\theta)$ and $y = a(1 - \cos 2\theta)$ find $\frac{dy}{dx}$ when $\theta = \frac{\pi}{3}$.

Part - IV

(Reason and Numerical Based Questions)

13. If $y = \cot^{-1} \left(\frac{\sqrt{1 + \sin x} + \sqrt{1 - \sin x}}{\sqrt{1 + \sin x} - \sqrt{1 - \sin x}} \right)$; prove that $\frac{dy}{dx}$ is independent of x .

14. If $y = \log \left(\sqrt{x} + \frac{1}{\sqrt{x}} \right)$, prove that $\frac{dy}{dx} = \frac{x-1}{2x(x+1)}$.

