R.E.D. Group of Schools

Summer Holidays Homework Framework

SESSION: 2023-24

CLASS – 11th

Subject: English **Text Book:** - N.C.E.R.T. (Hornbill, Snapshot) and BBC Compacta

1. **Syllabus Covered up to MAY END**

   Book: Hornbill

   - Chapter No.-1 Chapter Name- The Portrait of a Lady
   - Chapter No.- 2 Chapter Name- We are not Afraid to Die
   - Poem No.- 1 Poem Name- A Photograph
   - Poem No.-2 Poem Name- The Laburnum Top

   Book: Snapshots

   - Chapter No.- 1Chapter Name- The Summer of the Beautiful White Horse

2. **List of all new concepts taught up to MAY END (Writing Skills)**

   - Reading Comprehension
   - Note Making and Summarization
   - Advertisements
   - Speech Writing

3. **Tools required for doing Homework:**

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

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

5. **Formative Assessment based Homework:**

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

     - Each student will read –
       Fictional work: The Centerville Ghost written by Oscar Wilde and
       Non-fiction: The Diary of a Young Girl by Anne Frank
       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 story
- ✓ Write the summary of the story as follows :—
  - ❖ Beginning
  - ❖ Middle
  - ❖ End
- ✓ Write your favourite part of the story
- ✓ Mention anything you disliked about the story
- ✓ Story 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: -

- ➢ Benefits and challenges of living in a joint family.

  OR

- ➢ Build a conversation of eight to ten sets of exchange, with your grandmother discussing the incidents that happened in your school that day.

  OR

- ➢ Every member contributes to form a happy family. Share your views for a minute or two

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 (Do any two creative writing topic)

- ➢ **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 favorite character from the movie "A Little Dream" on A4 size sheet.
- **Review writing :**

Discuss and explain the movie 'The Jungle Book' with the help of the following points.

- Classic element.
- Fantasy.
- Photorealism
- Blending of emotions

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

1. **Pre reading** – Snapshot (Ch-2 The Address) , Hornbill (Ch-3 Discovering Tut: The Saga Continues)

- **Learning** - Ch 1 The Portrait of a Lady, Ch 2 We are not Afraid to Die

  Poem 1 A Photograph, Poem 2 The Laburnum Top

  Ch. 1, The Summer of the Beautiful White Horse

- **Section-E-** Project work

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 Transformation of Sentences (Narration/Voice)

   OR

Draw your favorite fiction-character from any one work of the writer Ruskin Bond and describe it using 10 adjectives.

R.E.D. Group of Schools

Summer Holidays Homework

SESSION: 2023-24

CLASS – 11th to 12th

Subject: Economics **Text Book: Sandeep Garg**

1. **Syllabus Covered up to MAY END**
   - Chapter No. 1, Chapter Name - Introduction to Micro Economics
   - Chapter No. 2, Chapter Name - Consumer's equilibrium
   - Chapter No. 3,Chapter Name - Demand
   - Chapter No. 4, Chapter Name - Elasticity of Demand
2. **List of all new concepts taught up to MAY END**
   - Economic problem, Central problem of economy and production possibility curve.
   - Consumers equilibrium cardinal and ordinal approach, law of diminishing marginal utility, indifference curve analysis, budget line, MRS and MRE.
   - Law of demand, substitute goods, complementary goods, inferior goods and Griffen goods.
   - Elasticity and degree of elasticity.
3. **Formative Assessment based Homework:**

   Section-A - Project work

   Section-B - Picture observation-based writing/ Case studies

   Section-C - Chart Work

   Section-D - Current affairs

   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
   - A4 Sheets
   - Resources as per activity
6. **Instruction/Guidelines for Formative Assessment based Homework:**
   - **Section-A (Project work)**

Topic	*Roll No.*
Demand	1 to 10
Production possibility curve	11 to 20
Cardinal approach of consumer equilibrium	21 to 30
Ordinal approach of consumer equilibrium	31 to 40

   - **Materials required as per project.**

- **Steps to prepare:**
  1) Identifying the Project Statement.
  2) Setting the Project Objective and Scope of the Project .
  3) Defining the Project Tasks and Responsibilities (Creating the Work Flow Structure).
  4) Monitoring the Project and Finding the Important Resources Required.

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

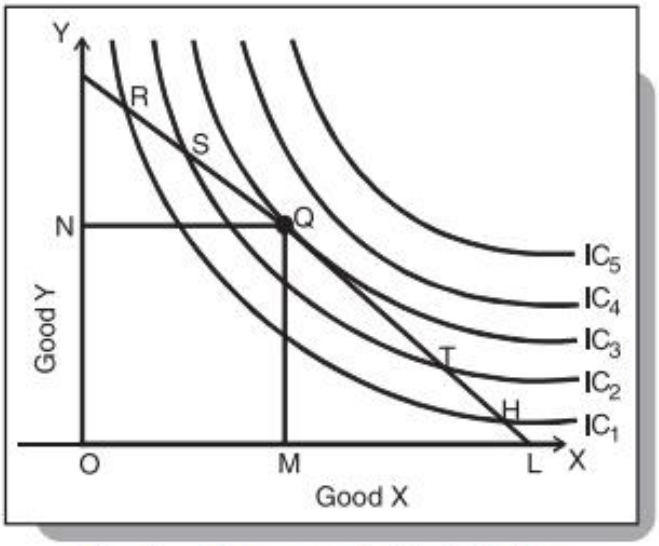


Fig. 1 : Consumer's Equilibrium

- **Section-C (Chart Work)**
  - **Make chart on given topic.**

    Topic: Consumer Equilibrium in Case of Two Commodities.

    OR

    Topic: Consumer Equilibrium in Case of One Commodities.

- **Section-D (Current affairs)**
  - Collect data on the given issue in economy- High rates of unemployment or underemployment
    - **Materials Required: Internet, A4 Sheets, Statistical Data**
    - **Steps to prepare:**

      Collect Statistical Data from internet, analyse the data and state various reasons for unemployment or underemployment.

- **Section-E (Learning and Pre-reading homework)**
  - **Learning Homework:** Learn Ch- 3 & 4 from Sandeep Garg Book.
  - **Pre-Reading Homework:** Read Page no. 6.1 to 6.10 of NCERT Text Book.

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

R.E.D. Group of Schools

Revision Assignment - 1

Class: 11th **Subject: Economics**
Ch. Name: Introduction **Chapter 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

Each economy has scarce resources and will have possibility of being exhausted gradually after a continuous use. Growth of resources, therefore, becomes a basic problem of the economy. It can achieve this objective through technological advancement. Under-developed countries like India, Pakistan and Thailand etc. have remained poor because of poor growth of their resources. Besides fuller utilization of resources, these countries should try to raise their productive capacities, by exploring further availability of natural resources and discovering better techniques for their use. Moreover, full use of productive capacity is also indispensable for the growth of the economy. Since economic theory is classified into Micro and Macro Theory. Microeconomic theory deals with the allocation of resources in the market economy. In this theory, decisions regarding 'what', 'how' and 'for whom' to produce are decided on the basis of price mechanism. Goods are freely bought and sold in the market economy on an agreed price. Macroeconomic theory deals with the fuller and efficient use of resources. It also deals with the growth of resources and problems relating saving, investment, inflation, unemployment etc. Development economics deals with the problem of growth of resources.

Q.1. Which is a central problem of an economy?
(a) Allocation of resources (b) optimum utilization of resources
(c) Economic development (d) all of these

Q.2. To which factor, economic problem is basically related to:
(a) Choice (b) Consumer selection
(c) Firm selection (d) None of these

Q.3. Macro Economics deals with the ……..
(a) Allocation of resources (b) Aggregate use of resources
(c) Both (a) & (b) (d) None of these

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-
(i) Scarcity (ii) Normative Economics (iii) Marginal rate of transformation

Q.5. Application based question:-

1. The following table depicts the production possibilities of commodities X and Y:

Possibility	A	B	C	D	E
Commodity X	0	1	2	3	4
Commodity Y	10	9	7	4	0

(a) Show these production possibilities through PPF. What do the points on the curve indicate?

(b) Label a point F inside the curve. What does this point indicate? (c) Label a point G outside the curve. What does this point indicate?

(c) What must occur so that the economy can attain the level of production as indicated by point G?

2. Explain the concept of change in PPF.

Part-3 (Short Questions)

Q.6. Answer the following questions:-
i) What are the central problems of an economy?
ii) Differentiate between microeconomics and macroeconomics.

R.E.D. Group of Schools

Revision Assignment - 2

Class: 11th **Subject: Economics**

Ch. Name: Consumer's Equilibrium **Chapter 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

Read the following and answer the questions on the basis of the same: -

A consumer is an economic agent who uses goods and services for the direct satisfaction of his / her wants. Consumer consists of institution, individuals and groups of individuals or households. Consumer behaviour refers to the way in which consumers spend their income. The consumer derives utility from his expenditure. The consumer chooses his expenditures and maximums his utility with the given income and given prices of goods and services.Consumption of goods and services leads to satisfaction of human wants. This satisfaction is called "Utility". Utility may be defined as "satisfaction derived from the consumption of a commodity" or it may be defined as "want-satisfying power of a commodity". Total Utility (TU) It is the sum total of utility derived from the consumption of all the units of a commodity. Marginal Utility (MU). It refers to additional utility on account of the consumption of an additional unit of a commodity.

Q.1. Utility in economics means: -

(a) Want satisfying power of a commodity (b) Pleasure

(c) Happiness (d) Usefulness

Q.2. Marginal utility is: -

(a) Total minus average utility (b) Addition to total utility

(c) Total plus average utility (d) Total utility divided by the number of units

Q.3. Total Utility is.....

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

i) Budget set

ii) MRS

iii) MU in terms of money

Q.5. Application based question:-

i) Explain the relationship between TU and MU with the help of curve.

ii) Explain the concept of consumer's eqilibrium with the help of indifference curve analysis.

Part-3

Short Questions

Q.6. Answer the following questions:-

i) Explain the law of DMU with its assumptions.

ii) Explain the concept of consumer's eqilibrium in case of two commodities.

R.E.D. Group of Schools

Revision Assignment - 3

Class: 11th **Subject: Economics**

Ch. Name: Demand **Chapter 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

If our income rises, we generally tend to buy more of the goods. More income would mean more pens, more shirts, more shoes, more cars and so on. But there are exceptions. If initially, you are buying coarse grain, how would you take your increase in income now? Perhaps, as a first step, you would discard the consumption of inferiors. Surely, this happens in the deserts of Rajasthan where the rich minority eats wheat while the poor majority eats Bajra as their staple food.

Q.1 The law of demand does not apply to _____ goods. (Normal/ Giffen)

Q.2 Inferior goods are those whose income effect is_____. (Negative/ Positive)

Q.3 A fall in income of the consumer (in case of normal goods) will cause

i) Upward movement on the demand curve.

ii) Downward movement on the demand curve.

iii) Rightward shift of the demand curve.

iv) Leftward shift of the demand curve.

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

i) Giffen goods

ii) Contraction of demand

iii) Complementary goods

Q.5. Application based question:-

i) Explain the effect on demand curve with respect to change in income with the help of graph.

ii) Explain the difference between Substitute goods and Complementary goods with the help of schedule.

Part-3

Short Questions

Q.6. Answer the following questions:-

i) What are the exception to law of demand?

ii) Explain the determinants of individual and market demand.

R.E.D. Group of Schools

Revision Assignment - 4

Class: 11th **Subject: Economics**

Ch. Name: Elasticity of Demand **Chapter 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

Salt has no close substitute & moreover a household has to share a negligible part of his entire budget. Therefore, even inspite of increase in price of salt its demand will not be affected.

However, demand for a particular brand of toothpaste is comparatively more elastic as there are many brands of toothpaste available in the market, so the consumers can switch over to any other brand in case of hike in the price of a particular brand of toothpaste.

Q.1 Which factors according to above passage are responsible for price elasticity of demand?

Q.2 Is the demand for a luxury item elastic? Why?

Q.3 Name some commodities, which have small number of substitutes.

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

i) Price Elasticity of demand
ii) Cross elasticity of demand
iii) Income elasticity of demand

Q.5. Application based question:-

i) Explain the concept of degrees of elasticity of demand with help of curves.
ii) Explain the relationship between price elasticity of demand and total expenditure.

Part-3

Short Questions

Q.6 Answer the following questions:-

1. What are the factors affecting price elasticity of demand?
2. The demand for commodity 'A' rises by 20% due to fall in price by 72 from the original price of 8.
   - *i) Calculate elasticity of demand by 'Percentage Method'.*
   - *ii) Whether demand of 'A' is elastic or inelastic? Give reason for your answer.*
   - *iii) What will be the shape of demand curve of A?*
   - *iv) If new demand of commodity 'A' is 84 units, then calculate its original demand.*
   - *v) Determine the price elasticity by "Total Expenditure Method'.*
   - *vi) Whether price elasticity of demand calculated in (i) and (v) give the same answer?*

R.E.D. GROUP OF SCHOOLS
Summer Holidays Homework
SESSION: 2023-24

CLASS – 11th **Subject: Geography** **Text Book: NCERT**

1. Syllabus Covered up to MAY END

- Chapter No.- 1 Chapter Name-Geography as a discipline
- Chapter No.- 2 Chapter Name-The origin and evolution of the earth
- Chapter No.- 3 Chapter Name-Interior of the earth
- Chapter No.- 4 Chapter Name-Distribution of the ocean and continents
- Chapter No.- 6 Chapter Name- Geomorphic processes
- Chapter No.- 7 Chapter Name-Landforms and their evolution

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

- Physical Geography nature and scope
- Sources of information about the interior
- Structure of the earth
- Continental drift
- Geomorphic processes
- Landforms and their evolution

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. Interior structure of the earth	1 to 8
2. Soil profile	9 to 16
3. A collage related to damages caused by an earth quake	17 to 24
4. Identify the land form materials around your area and paste their picture on chart	25 to 32
5. A chart showing different types of forest	33 to 39

Materials Required: As per requirement of the model.

Section-B- (Case Studies)

Do given case Studies

Carbon dioxide is meteorologically a very important gas as it is transparent to the incoming solar radiation but opaque to the outgoing terrestrial radiation. It absorbs a part of terrestrial radiation and reflects back some part of it towards the earth's surface. It is largely responsible for the greenhouse effect. The volume of other gases is constant but the volume of carbon dioxide has been rising in the past few decades mainly because of the burning of fossil fuels. This has also increased the temperature of the air. Ozone is another important component of the atmosphere found between 10 and 50 km above the earth's surface and acts as a filter and absorbs the ultra-violet rays radiating from the sun and prevents them from reaching the surface of the earth.

i. Which gas is meteorologically very important?

ii. What is the importance of the ozone layer?

iii. Which gas is responsible for the greenhouse effect?

- **Section-C-Chart / Map Work.**
  - Make chart on given topic.

    Topic: Shadow Zone

    Or

    Topic: Running water erosional and depositional landforms
  - Fill the following in map

    India's states and their capital on the political map of India.
- **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

Subject: Geography

Class: 12th **Ch. No.: 1** **Ch. Name: Geography as a discipline**

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

Dualism is one of the main characteristics of geography which got introduced from the very beginning. This dualism depended on the aspect emphasised in the study. Earlier scholars laid emphasis on physical geography.

Buthuman beings are an integral part of the earth's surface. They are part and parcel of nature. They also have contributed through their cultural development. Thus developed human geography with emphasis on human activities.

The study of every subject is done according to some approach.The major approaches to study geography have been (i) Systematic and (ii) Regional. The systematic geography approach is the same as that of general geography. This approach was introduced by Alexander von Humboldt, a German geographer (1769-1859) while regional geography approach was developed by another German geographer and a contemporary of Humboldt, Karl Ritter (1779-1859).

1. What is dualism?
2. Who are the integral part of the earth's surface?
3. Who gave the regional approach?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

i) Geography
ii) Human geography
iii) Climatology

Q.5. Understanding based questions: -

i) Discuss the methods and techniques of geography study.
ii) Describe the subfield of human geography.

Part-3

Short Questions

Q6. Answer the following questions: -

i) Explain the developments in geography in Post-World War – II years.

ii) Explain the relationship between physical science and social science

R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th **Ch. No.: 2** **Ch. Name: Origin and evolution of the earth**

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

A large number of hypotheses were put forth by different philosophers and scientists regarding the origin of the earth. One of the earlier and popular arguments was by German philosopher Immanuel Kant. Mathematician Laplace revised it in 1796. It is known as Nebular Hypothesis. The hypothesis considered that the planets were formed out of a cloud of material associated with a youthful sun, which was slowly rotating. Later in 1900, Chamberlain and Moulton considered that a wandering star approached the sun. As a result, a cigar-shaped extension of material was separated from the solar surface. As the passing star moved away, the material separated from the solar surface continued to revolve around the sun and it slowly condensed into planets. Sir James Jeans and later Sir Harold Jeffrey supported this argument. At a later date, the arguments considered of a companion to the sun to have been coexisting. These arguments are called binary theories. In 1950, Otto Schmidt in Russia and Carl Weizas car in Germany somewhat revised the 'nebular hypothesis', though differing in details. They considered that the sun was surrounded by solar nebula containing mostly the hydrogen and helium along with what may be termed as dust.

I. What is nebular hypothesis?

II. Who supported Chamberlain and Moulton argument related to the evolution of the earth?

III. Who revised the nebular hypothesis?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

i) Big Bang

ii) Supernova

iii) Star

Q.5. Understanding based questions: -

i. What do you mean by seismic shadow zone? What is its significance?

ii. Inner planets are terrestrial while outer planets are Jovian. Why?

Part-3

Short Questions

Q6. Answer the following questions: -

i. How is it that the knowledge about interior of the earth is based on indirect observations?

ii. What is the significance of curved paths of earthquake waves with respect to the interior of the earth?

R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th **Ch. No.: 3** **Ch. Name: Interior of the earth**

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

The other indirect sources include gravitation, magnetic field, and seismic activity. The gravitation force (g) is not the same at different latitudes on the surface. It is greater near the poles and less at the equator. This is because of the distance from the centre at the equator being greater than that at the poles. The gravity values also differ according to the mass of material. The uneven distribution of mass of material within the earth influences this value. The reading of the gravity at different places is influenced by many other factors. These readings differ from the expected values. Such a difference is called gravity anomaly. Gravity anomalies give us information about the distribution of mass of the material in the crust of the earth. Magnetic surveys also provide information about the distribution of magnetic materials in the crustal portion, and thus, provide information about the distribution of materials in this part.

i. What are the indirect sources to know about the interior of the earth?
ii. What is gravitational force?
iii. What is gravity anomaly?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

i) Shadow zone
ii) Earth
iii) Mantle

Q.5. Understanding based questions: -

i. Explain the uppermost layer of the earth- crust.
ii. Write a short note on shield volcanoes.

Part-3

Short Questions

Q6. Answer the following questions: -

i. Explain different types of earthquake waves.

ii. Explain how shadow zone emerges. Use a diagram.

R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th **Ch. No.: 4** **Ch. Name: Distribution of Oceans and Continents**

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

The Indian plate includes Peninsular India and the Australian continental portions. The subduction zone along the Himalayas forms the northern plate boundary in the form of continent— *continent convergence*. In the east, it extends through Rakinyoma Mountains of Myanmar towards the island arc along the Java Trench. The eastern margin is a *spreading site* lying to the east of Australia in the form of an oceanic ridge in SW Pacific. The Western margin follows Kirthar Mountain of Pakistan. It further extends along the Makrana coast and joins the *spreading site* from the Red Sea rift southeastward along the Chagos Archipelago. The boundary between India and the Antarctic plate is also marked by oceanic ridge *(divergent boundary)* running in roughly W-E direction and merging into the *spreading site*, a little south of New Zealand.

1.Which mountains lie eastern part of Indian plate?

2.Which mountain range lie on western part of Indian plate?

3.What type of boundary is formed on the northern boundary of Indian plate?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

i) Continent

ii) Peninsula

iii) Drift

Q.5. Understanding based questions: -

1. When were Deccan traps were formed?
2. How convectional currents are generated?

Part-3

Short Questions

Q6. Answer the following questions: -

i. What are different types of plate boundaries? Explain briefly.

ii. What are the evidences in support of continental drift theory?

R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th **Ch. No.: 6** **Ch. Name: Geomorphic process**

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

Gravitational force acts upon all earth materials having a sloping surface and tend to produce movement of matter in down slope direction. Force applied per unit area is called stress. Stress is produced in a solid by pushing or pulling. This induces deformation. Forces acting along the faces of earth materials are shear stresses (separating forces). It is this stress that breaks rocks and other earth materials. The shear stresses result in angular displacement or slippage. Besides the gravitational stress earth materials become subjected to molecular stresses that may be caused by a number of factors amongst which temperature changes, crystallisation and melting are the most common. Chemical processes normally lead to loosening of bonds between grains, dissolving of soluble minerals or cementing materials. Thus, the basic reason that leads to weathering, mass movements, and erosion is development of stresses in the body of the earth materials. As there are different climatic regions on the earth's surface the exogenic geomorphic processes vary from region to region. Temperature and precipitation are the two important climatic elements that control various processes.

i. What is gravitational force?
ii. What is chemical weathering?
iii. Which climatic elements control the various process?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

i) Geomorphology
ii) Gravity
iii) Climate

Q.5. Understanding based questions: -

i. What are different types of weathering activities?
ii. How can you classify mass movement?

Part-3

Short Questions

Q6. Answer the following questions: -

i. Deposition is the result of erosion. Explain.
ii. Mention the factors which results in mass movement.

R.E.D. Group of Schools

Revision Assignment Framework

Subject: Geography

Class: 12th **Ch. No.: 7** **Ch. Name: Landforms and Their Evolution**

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

Drumlins are smooth oval shaped ridge-like features composed mainly of glacial till with some masses of gravel and sand. The long axes of drumlins are parallel to the direction of ice movement. They may measure up to 1 km in length and 30 m or so in height. One end of the drumlins facing the glacier called the stoss end is blunter and steeper than the other end called tail. The drumlins form due to dumping of rock debris beneath heavily loaded ice through fissures in the glacier. The stoss end gets blunted due to pushing by moving ice. Drumlins give an indication of direction of glacier movement. Along the high rocky coasts, the rivers appear to have been drowned with highly irregular coastline. The coastline appears highly indented with extension of water into the land where glacial valleys (fjords) are present. The hill sides drop off sharply into the water. Shores do not show any depositional landforms initially. Erosion features dominate.

i. What are drumlins?
ii. What is stoss?
iii. What is tail?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms: -

i) Cliff
ii) Sea caves
iii) Ox Bow Lake

Q.5. Understanding based questions: -

i. What do incised meanders in rocks and meanders in plains of alluvium indicate?
ii. Explain the evolution of valley sinks or uvalas?

Part-3

Short Questions

Q6. Answer the following questions: -

i. Glacial valleys show up many linear depositional forms. Give their locations and names.
ii. How does wind perform its task in desert areas? Is it the only agent responsible for the erosional features in the deserts?

R.E.D. Group of Schools

Summer Holidays Homework

SESSION: 2023-24

CLASS – 11th to 12th

Subject: Pol. Science **Text Book: NCERT**

Books Prescribed: NCERT

- Indian Constitution at work
- Political theory

1. **Syllabus Covered up to MAY END**
   - **Indian Constitution at work**

     Chapter 1- Constitution why and how

     Chapter 2- Election and representation

     Chapter 4- Executive
   - **Political theory**

     Chapter 1-Political Theory: An Introduction

     Chapter 2-Liberty
2. **List of all new concepts taught up to MAY END**
   - Concept of Constitution
   - Making of law
   - Constitutional amendments
   - Elections and Democracy
   - Election System in India
   - Electoral Reforms
   - Types of executive, functions and powers of President, Vice-President, P.M, Council of Ministers.
   - Political Theory and its importance.
   - Liberty and its types, Harm Principle, freedom of speech.
3. **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
4. **Summative Assessment based Homework:**

   Section-F - Chapter-wise Assignments
5. **Tools required for doing Homework:**
   - NCERT Text Book

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

6. Instruction/Guidelines for Formative Assessment based Homework:

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

Topic	*Roll No.*
Indian Constitution	1 to 10
First Past The Post System	11 to 20
PR System	21 to 30
Fundamental Rights	31 to 39

  - **Materials required as per project.**
  - **Steps to prepare:**
    - Read the chapter from book.
    - Search from Internet.
    - Prepare the model.
- **Section-B (Map Work)**
  - **Indian Political Map**
    - Mark and label bicameral states of India on political map of India**.**
  - **World Political Map**
    - Locate different continents and major countries of European continent on the political map of world.
- **Section-C (Chart Work)**
  - **Make chart on given topic.**

    First past the Post System

    OR

    Proportional Representation
- **Section-D (Current Affairs)**

  Collecting current news of new Amendment in Indian Constitution /New Policies form by Govt. for social welfare of people/ Session of Indian Parliament.
- **Section-E (Learning and Pre-reading homework)**
  - **Learning Homework:** Learn Question Answers of ch-1, 2 and 3 from Indian Constitution at work of NCERT Text Book.
  - **Pre-Reading Homework:** Read ch-3 Legislature of Indian Constitution at work NCERT Text Book.
- **Section-F-Revision assignment**

R.E.D. Group of Schools

Revision Assignment - 1

Class: 11th **Subject: Political Science**

Ch. Name: Constitution **Chapter No.: 1**

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

Part-1

(Case Study Question/Activity based Question)

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

Case Study- 1

"… I have realised as nobody else could have, with what zeal and devotion the members of the Drafting Committee and especially its Chairman, Dr. Ambedkar in spite of his indifferent health, have worked. We could never make a decision which was or could be ever so right as when we put him on the Drafting Committee and made him its Chairman. He has not only justified his selection but has added lustre to the work which he has done. In. this ' connection, it would be invidious to make any distinction as among the other members of the Committee. I know they have all worked with the same zeal and devotion as its Chairman, and they deserve the thanks of the country."

Q.1 Who was the Chairman of Drafting Committee?

Q.2 What made the Constituent Assembly of India unique?

Q.3 How long the Constitution of India took in framing?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4 Define the following terms:-

i) Secularism

ii) Federalism

iii) Universal Adult Franchise

Q.5 Application based question:-

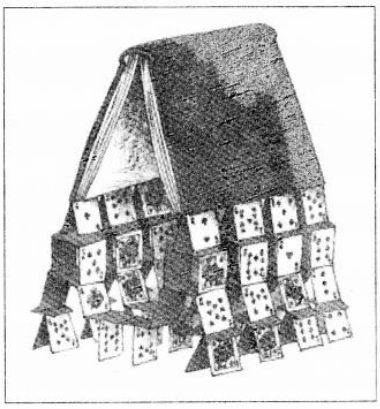
i) What is the philosophy of the Indian Constitution? Discuss.

ii) Write a note on Constituent Assembly

Part-3

Picture Based Questions

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



(i) Why does the cartoonist describe the new Iraqi Constitution as the castle of cards?

(ii) Would this description apply to the Indian Constitution?

R.E.D. Group of Schools

Revision Assignment - 2

Class: 11th **Subject: Political Science**

Ch. Name: Election and Representation **Chapter No.: 2**

For recapitulation & solving the assignment the students should refer to their NCERT text book of Science (Ch-2 Election and Representation)

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 Election Commission has very limited staff of its own. It conducts the elections with the help of the administrative machinery. However, once the election process has begun, the commission has control over the administration as far as election related work is concerned. During the election process, the administrative officers of the State and central governments are assigned election related duty and in this respect, the Election Commission has full control over them. The EC can transfer the officers, or stop their transfers; it can take action against them for failing to act in a non-partisan manner.

Q.1 How does the Election Commission conduct the elections?

Q.2 During election process, who are assigned election related duty?

Q.3 What are the powers of Election Commission?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4 Define the following terms:-

i) Democracy

ii) Constituency

iii) Majority

Q.5 Application based question:-

i) How does the Election Commission of India ensure its independence?

ii) Suggest some major suggestions for electoral reforms.

Part-3

Picture Based Questions

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

1. Why is the Universal Adult Franchise compared to an elephant?
2. Is it unmanageable?

R.E.D. Group of Schools

Revision Assignment - 4

Class: 11th **Subject: Political Science**

Ch. Name: Executive **Chapter No.: 4**

For recapitulation & solving the assignment the students should refer to their NCERT text book of Science (Ch-4 Executive)

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 Indian bureaucracy today is an enormously complex system. It consists of the All-India services, State services, employees of the local governments, and technical and managerial staff running public sector undertakings. Makers of our Constitution were aware of the importance of the non-partisan and professional bureaucracy. They also wanted the members of the civil services or bureaucracy to be impartially selected on the basis of merit. So, the Union Public Service Commission has been entrusted with the task of conducting the process of recruitment of the civil servants for the government of India. Similar public service commissions are provided for the States also. Members of the Public Service Commissions are appointed for a fixed term. Their removal or suspension is subject to a thorough enquiry made by a judge of the Supreme Court.

Q.1 What do you mean by bureaucracy?

Q.2 What does the Indian bureaucracy consist of?

Q.3 How are the public servants appointed?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4 Define the following terms:-

i) Council of Ministers

ii) Parliamentary System

iii) Republic

Q.5 Application based question:-

i) Describe the powers and functions of the Prime Minister of India.

ii) Describe the powers and functions of the President of India.

Part-3

Picture Based Questions

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

1. What does the cartoon represent?
2. What message does the cartoon convey?

There is no Council of Ministers without the Prime Minister. This cartoon shows how, literally, the Prime Minister 'leads' the Council of Ministers!

R.E.D. Group of Schools

Revision Assignment - 1

Class: 11th **Subject: Political Science**

Ch. Name: Political Theory: An Introduction **Chapter No.: 1**

For recapitulation & solving the assignment the students should refer to their NCERT text book of Science (Ch-1 Political Theory: An Introduction)

Part-1

(Case Study Question/Activity based Question)

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

Case Study- 1

Though freedom is guaranteed in our Constitution, we encounter new interpretations all the time. This is a bit like playing a game; as we play chess or cricket, we learn how to interpret the rules. In the process, we discover new and broader meanings of the game itself. Similarly, the fundamental rights guaranteed by our Constitution are continually being reinterpreted in response to new circumstances. For instance, the right to life has been interpreted by the Courts to include the right to livelihood. The right to information has been granted through a new law. Societies frequently encounter new challenges which generate new interpretations. The fundamental rights guaranteed by our Constitution have been amended and expanded over time through judicial interpretations and government policies which are designed to address new problems.

Q.1 How the right to freedom has been designed to address new problems?

Q.2 Which right has been interpreted to include right to livelihood?

Q.3 Which right has been granted by a new law?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4 Define the following terms:-

i) Politics
ii) Political Theory
iii) Sovereignty

Q.5 Application based question:-

i) Politics works as a pursuit of common good of people'. Justify the statement.
ii) The government as a part of politics can affect on daily life of humans both in a useful and a harmful way. How?

Part-3

Picture Based Questions

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

1. What does the cartoon represent?
2. Mention some drawbacks of politics.

You must retire from politics at once! Your activities are having a bad influence on him. He thinks he can get away with lying and cheating.

R.E.D. Group of Schools

Revision Assignment - 2

Class: 11th **Subject: Political Science**

Ch. Name: Liberty **Chapter No.: 2**

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

Part-1

(Case Study Question/Activity based Question)

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

Case Study- 1

At various times there have been demands to ban books, plays, films, or academic articles in research journals. Let us think about this demand to ban books in the light of our discussion so far which sees freedom as 'the making of choices', where a distinction is made between 'negative and positive liberty', where we recognise the need for 'justifiable constraints' but these have to be supported by proper procedures and important moral arguments. Freedom of expression is a fundamental value and for that society must be willing to bear some inconvenience to protect it from people who want to restrict it. Remember Voltaire's statement — 'I disapprove of what you say but I will defend to death your right to say it'. How deeply are we committed to this freedom of expression?

Q.1 What are the two aspects of liberty?

Q.2 What is a fundamental value among rights?

Q.3 How can we support justifiable constraints?

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4 Define the following terms:-

i) Positive Liberty

ii) Freedom of speech

iii) Natural Liberty

Q.5 Application based question:-

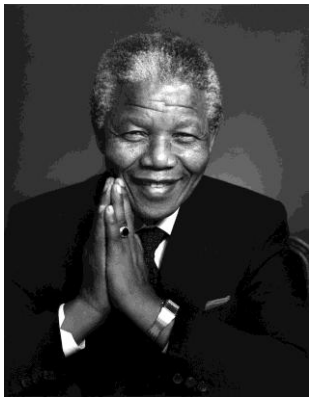
i) Mention the elements of liberty.

ii) Explain different kinds of liberty.

Part-3

Picture Based Questions

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



i) Identify the picture and write name of the famous personality.

ii) How did Mandela's ' hunger for freedom' change his life?

R.E.D. Group of Schools

Summer Holidays Homework

Session: 2023-24

Subject: Mathematics **Class –11th** **Text Book: NCERT Text Book**

1. **Syllabus Covered upto MAY END**
   - Chapter No.- 1…… Chapter Name:- Sets
   - Chapter No.- 2…… Chapter Name:- Relations and Functions
   - Chapter No.- 3…… Chapter Name:- Trigonometric Functions
2. **List of all new concepts taught upto MAY END**
   - Concepts of a Sets
   - Types of Sets, Operations on Sets
   - Practical applications of Set Operations
   - Cartesian product of Set, Types of Relations, Function as a special kind of realtion
   - Domain and Range of Function
   - Measure of an angle
   - Signs of trigonometric Functions, Trigonometric functions of allied angles
   - Graph of a trigonometric Functions
   - Transformation of a product into sum or difference
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. **Set , Types and Operations**	**1 to 8**
2. **A Relation and a Function**	**9 to 16**
3. **Distinguish a Relation and a Function**	**17 to 24**
4. **Formulas of trigonometric Functions**	**25 to 32**
5. **Graphs of sin x, cos x and tan x**	**33 to 40**

Make a project files according to the given topics

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

  Solve the following real life based problems.

- **Problem solving activity.**

  A class teacher Mamta Sharma of class XI write three sets A, B and C are such that

  A = {1, 3, 5,7, 9}, B = {2, 4, 6, 8} and C = {2, 3, 5, 7, 11}.

Answer the following questions which are based on above sets.

(i) Find A ∩ B.

(a) {3, 5, 7} (b) φ (c) {1, 5, 7} (d) {2, 5, 7}

(ii) Find A ∩ C

(a) {3, 5, 7} (b) φ (c) {1, 5, 7} (d) {3, 4, 7}

(iii) Which of the following is correct for two sets A and B to be disjoint?

(a) A ∩ B = φ (b) A ∩ B ≠φ (c) A∪B = φ (d) A∪B ≠φ

(iv) Which of the following is correct for two sets A and C to be intersecting?

(a) A ∩ C = φ (b) A ∩ C ≠φ (c) A∪C = φ (d) A∪C ≠φ

(v) Write the n[P (B)].

(a) 8 (b) 4 (c) 16 (d) 12

- **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. If the sum of n terms of an A.P. is $(pn+qn^2)$, where p and q are constants, find the common difference.

Q6. If E is the universal set and $A=B\cup C$, then the set $E-\left(E-\left(E-\left(E-(E-A)\right)\right)\right)$ 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. Set Operations Using Venn Diagrams
2. Distinguish a Relation and a Function
3. Graphs of sin x, Sin 2x, Sin x and sin x/2

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

R.E.D. Group of Schools

Revision Assignment -1

Class: 11th **Subject: Maths**

Ch. No.: Sets **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)

1. Which of the following is a Set?
   (a) The collection of all even integers.
   (b) The collection of most dangerous animals of the world.
   (c) The collection of rich persons in India.
   (d) The collection of best teachers of Mathematics in India
2. Which of the following sets is a set-builder form of {14, 21, 28, 35, 42……. 98):
   (a) $\{x: x$ is a multiple of 7, $7 < x < 90\}$ (b) $\{x: x$ is a multiple of 7$\}$
   (c) $\{x: x$ is a multiple of 7, $7 < x < 98)$ (d) $\{x: x$ is a multiple of 7, $7 < x < 100\}$
3. Which of the following sets is a roster form of $[x: x$ is a positive integer and $x^2 < 40)$
   (a) {0, 1, 2, 3, 4, 5, 6} (b) {1, 2, 3, 4, 5}
   (c) {1, 2, 3, 4, 5, 6, 7} (d) {1, 2, 3, 4, 5, 6}
4. Which of the following sets is subset of $A = \{\phi, \{\phi\}, 1, 2, \{3, \phi\}, 5\}$:
   (a){1, 3} (b){2, 3} (c) {3, ϕ } (d){{3, ϕ }}
5. If A = {(a, *b)*, c} then power set P(A) is:
   (a) {{a*}*, {*b}*, {c}}
   (b){{a, *b}*, {*b*, c}, {c, *a}*, {a}, {*b}*, {c}}
   (c) { ϕ , {a}, {b*}*, {c}, {a, *b}*, {*b*, c}, {c, a}, {(a, *b)*, c}}
   (d){ ϕ , {(a, *b)}*, {c}, {(a, *b)*, c}}

Part – II

(Integer Type Questions)

6. If A = {1, 2, 3, 4, 5}. Then what is the cardinal number of Set A.
7. If A = {a, b, c}. Then write the number of subsets of A.
8. If A = {1, 2, 3, 4}. Then how many elements are there in the P (A).
9. "Collection of good Hockey players of India". Is it a set or not?

Part – III

(Application Based Questions)

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

10. Write down all the subsets of the following set:(i) {9}(ii) {1, 2, 3}.

11. Let U = {1, 2, 3, 4, 5, 6, 7, 8, 9}; A = {1, 2, 3, 4}, B = {2, 4, 6, 8} and C = {3, 4, 5, 6}.

    Find: (i) A' (ii) $(A \cup B)'$

12. Let U be the set of all triangle in a plane. If A is the set of all triangles with at least one angle different from 60^0, then find A'?

Part – IV

(Reason and Numerical Based Questions)

13. Are the following pair of sets equal? Give reasons.

    A = {2, 3), B = *(x:x* is solution of $x^2 + 5x + 6 = 0$)

14. If U={1,2,3,4,5,6,7,8,9), A=(2,4,6,8} and B ={2,3,5,7).Verify that

    (i) $(A \cup B)' = A' \cap B'$ (ii) $(A \cap B)' = A' \cup B'$

Part – V

(Case Study Based Questions)

15. The school organised a farewell party of 100 students and school management decided three types of drinks distributes in party are Milk (M), Coffee(C) and Tea (T). He reported the following 10 students had all the three drinks M, C, T, 20 had M and C, 30 had C and T; 25 had M and T; 12 had M only; 5 had C only; 8 had T only.

(i) The number of students who did not take any drinks is

(a) 20 (b) 30 (c) 10 (d) 25

(ii) The number of students who prefer Milk is

(a) 47 (b) 45 (c) 53 (d) 50

(iii) The number of students who prefer Coffee is

(a) 47 (b) 53 (c) 45 (d) 50

(iv) The number of students who prefer Tea is

(a) 51 (b) 53 (c) 50 (d) 47

Part – VI

(Analysis Based Question)

Answer the following question by organizing and integrating the information.

16. A survey shows that 63% of Indians likes cheese whereas 76% likes apples. If x% of Indians like both cheese and apples and each Indian like at least one of these, find the value of x.

Learning Homework: Learn all definitions & formulas from Page No. 1 to 29 of NCERT Book.

Pre-Reading Homework: Read Page no. 1 to 29 of NCERT Book and understand their meaning

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

Class: 11th **Subject: Maths**
Ch. No.: Relation and Function **Ch. Name: 2**

Part-1

Multiple choice Questions (only one option is correct)

1. If $3x+8>2$, x is an integer, then solution set is

(a) $\{x : x > -2, x \text{ is an int eger}\}$ (b) $(-2, \infty)$

(c) {-2, -1, 0, 1, 2,……..} (d) Z, the set of integer

2. If A = {1, 2, 4},B = {2, 4, 5}, C = {2, 5}, then (A – B) × (B – C) is

(a) {(1, 2), (1, 5), (2, 5)} (b) {(1, 4)}

(c) (1, 4) (d) none of these

3. If R is a relation on the set A = {1, 2, 3, 4, 5, 6, 7, 8, 9} given by x R y $\Leftrightarrow$ y = 3x, then R=

(a) {(3, 1), (6, 2), (8, 2), (9, 3)} (b) {(3, 1), (6, 2), (9, 3)}

(c) {(3, 1), (2, 6), (3, 9)} (d) none of these

4. Let A = {1, 2, 3}, B = {1, 3, 5}. If relation R from A to B is given by R = {(1, 3), (2, 5), (3, 3)}. Then R^{-1} is

(a){(3, 3), (3, 1), (5, 2)} (b) {(1, 3),(2, 5), (3, 3)}

(c){(1, 3), (5, 2)} (d) none of these

5. If A = {1, 2, 3}, B = {1, 4, 6, 9} and R is a relation from A to B defined by x is greater than y. The range of R is

(a) {1, 4, 6, 9} (b) {4, 6, 9} (c) {1} (d) none of these

Part – II

(Integer Type Questions)

6. How many elements lie in the empty relation?

7. If n(A)=3 and n(B)=2 then find the total number of relations between set A and set B.

8. If $\left(\frac{x}{3}+1, y-\frac{2}{3}\right)=\left(\frac{5}{3}, \frac{1}{3}\right)$, find the values of x and y.

9. If A = {1, 2, 3}, B = {4, 5}. Show that $A \times B \neq B \times A$.

Part – III

(Application Based Questions)

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

10. The cartesian product A × A has 9 elements among which some elements are found (-1, 0) and (0, 1). Find the set A and remaining elements of A × A .

11. Let A = {x, y, z} and B = {1, 2}. Find the number of relations from A into B.

12. Find the domain for which the function $f(x)=2x^2-1$ *and* $g(x)=1-3x$ are equal.

Part – IV

(Reason and Numerical Based Questions)

13. If R is the relation "is greater than" from A=(1,2,3,4,6) and B= (1,3,4), write R as a set of ordered pairs. Also find inverse of R

14. Find the domain of the function $f(x) = \sqrt{9 - x^2}$

Part – V

(Case Study Based Questions)

15. Gauri Shankar and Ravi are the students of class XI of RED School. Their mathematics teacher told them to collect the name of 5 students of class 9 and 4 students of class 8 for a project. They collected the names and write them in the form of sets as following:

A = {Hari, Shyam, Madhuri, Ritika, Reena}

B = {Abhipsa, Satabrata, Sai, Parteek}

Since discussion of relation and function was going on in their classes, they decided to explore these sets for various type of relation and functions.

Using the information answer the following

(i) How many elements exist in set A and set B

(a) 5, 4 (b) 4, 5 (c) 5, 6 (d) 4, 6

(ii) How many elements lie in n(A × B)

(a) 25 (b) 16 (c) 20 (d) 15

(iii) How many relation exist from set A to set B

(a) 20 (b) 2^{20} (c) 5^4 (d) 4^5

(iv) How many function exist from set A to set B

(a) 1024 (b) 625 (c) 2^{20} (d) 20^2

Part – VI

(Analysis Based Question)

Answer the following question by organizing and integrating the information.

16. Let A = {1, 2, 3, 4}, B = {1, 5, 9, 11, 15, 16} and f = {(1, 5), (2, 9), (3, 1), (4, 5), (2, 11)}. Are the following true ?

(i) f is relation from A to B (ii) f is a function from A to B.

Learning Homework: Learn all definitions & formulas from Page No. 30 to 48 of NCERT Book.

Pre-Reading Homework: Read Page no.30. to 48 of NCERT Book and understand their meaning

R.E.D. Group of Schools

Revision Assignment -3

Class: 11th **Subject: Maths**

Ch. No.: Trigonometric Functions **Ch. Name: 3**

Part-1

Multiple choice Questions (only one option is correct)

1. In a triangle ABC, the sides are 6 cm, 10 cm and 14 cm the obtuse angle of triangle will be:

(a) 120^0 (b) 110^0 (c) 130^0 (d) 150^0

2. Two sides of a triangle are $\sqrt{3}-1$ *and* $\sqrt{3}+1$ units and their included angle is 60^0 then third side will be :

(a) 7 (b) 6 (c) $\sqrt{6}$ (d) 8

3. In a triangle ABC, $\angle B = 30^0, \angle C = 60^0, a = 6\,cm$ then length of side 'b' will be :

(a) 8 (b) 5 (c) 4 (d) 3

4. Solution of equation $\cos\theta = \cos\alpha$ is

(a) $\theta = n\pi \pm \alpha$ (b) $\theta = n\pi + \alpha$ (c) $\theta = 2n\pi \pm \alpha$ (d) none of these

5. Solution of $\sin\theta = \sin\alpha$

(a) $\theta = n\pi + \alpha$ (b) $\theta = 2n\pi \pm \alpha$ (c) $\theta = n\pi \pm \alpha$ (d) $\theta = n\pi + (-1)^n \alpha$

Part – II

(Integer Type Questions)

6. What is the maximum and minimum value of sin *x*.

7. Find the value of cos(–1710).

8. Which trigonometric function are positive in the third quadrant.

9. Write the formula for tan(A+B).

Part – III

(Application Based Questions)

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

10. Prove that $\tan^2\theta - \sin^2\theta = \tan^2\theta \sin^2\theta$.

11. Prove that $\sec^4\theta - \sec^2\theta = \tan^4\theta + \tan^2\theta$

12. If $\cot x = \frac{-5}{12}, x$ lies in second quadrant, find the values of other five trigonometric function.

Part – IV

(Reason and Numerical Based Questions)

13. Prove that : $\sin^2 6x - \sin^2 4x = \sin 2x \sin 10x$.

14. Prove that : $\dfrac{\sin x - \sin y}{\cos x + \cos y} = \tan \dfrac{x-y}{2}$.

Part – V

(Case Study Based Questions)

15. If $\sin A = \dfrac{3}{5}$ and $\cos B = \dfrac{-5}{13}; 0 < A < \dfrac{\pi}{2}$ *and* $\pi < B < \dfrac{3\pi}{2}$.

(i) Find the value of cos A + sin B

(a) $-\dfrac{16}{65}$ (b) $-\dfrac{8}{65}$ (c) $\dfrac{8}{65}$ (d) $\dfrac{12}{65}$

(ii) Find the value of $\sin(A+B)$

(a) $-\dfrac{16}{65}$ (b) $\dfrac{-63}{65}$ (c) $\dfrac{-65}{33}$ (d) $\dfrac{33}{65}$

(iii) Find the value of $\cos(A+B)$

(a) $\dfrac{12}{65}$ (b) $\dfrac{-12}{65}$ (c) $\dfrac{-16}{65}$ (d) $\dfrac{16}{65}$

(iv) Find the value of sin 2A

(i) $\dfrac{14}{25}$ (ii) $\dfrac{24}{25}$ (iii) $\dfrac{-14}{25}$ (iv) $\dfrac{-24}{25}$

Part – VI

(Analysis Based Question)

Answer the following question by organizing and integrating the information.

16. Prove that : $\sin(n+1)x \sin(n+2)x + \cos(n+1)x \cos(n+2)x = \cos x$.

Learning Homework: Learn all definitions & formulas from Page No. 49 to 85 of NCERT Book.

Pre-Reading Homework: Read Page no. 49 to 85 of NCERT Book and understand their meaning