



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
CLASS – 11th to 12th

Subject: Accountancy

Text Book: DK GOEL

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

- Chapter No. 1, Chapter Name- Accounting for Partnership Firms-Fundamentals
- Chapter No. 2, Chapter Name- Change in Profit sharing Ratio among Existing Partners
- Chapter No. 3, Chapter Name- Admission of a Partner
- Chapter No. 4, Chapter Name- Retirement of a Partner
- Chapter No. 5, Chapter Name- Dissolution of a Partner

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

- Partnership Accounting – Methods of Preparing Capital Accounts, P&L Appropriation Account
- Division of Profits among Partners
- Past Adjustments, Guarantee of Minimum Profit
- Sacrificing Ratio, Gaining Ratio
- Goodwill Methods & its accounting treatment
- Accounting treatment of Reserves & Revaluation of Assets
- Adjustment of Capital on Admission of a Partner
- Adjustment of Capital on Retirement of a Partner
- Hidden Goodwill
- Executor's Account on death of a partner
- Dissolution of Partnership Firm

3. **Formative Assessment based Homework:**

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

Section-B - Chart Work

Section-C - Learning and Pre-reading Homework

Section-D - Collection of Bills (Cash or Credit)

Section-E - Case Studies

4. **Summative Assessment based Homework:**

Section-F- Chapter-wise Assignments

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

- Text Book (D.K. GOEL), Notebook, A4 Sheets, Resources as per activity

6. **Instruction/Guidelines for Formative Assessment based Homework:**

- **Section-A (Inquiry based project)**

<i>Topic</i>	<i>Roll No.</i>
Partnership Documentary	1 to 10
Partnership Social Media Campaign	11 to 20
Buying and Selling of Share in Share Market	20 to 30

- **Materials Required:**

- Use Mobile Phone for shooting Interviews.
- Make Posts on Social Media & collect Social media view thereon

- **Steps to prepare/enquire the topics:**

- Produce a short documentary film on the journey of a successful partnership. Interview partners from different businesses and industries, capturing their experiences, motivations, and lessons learned. Showcase how effective partnerships have played a significant role in their success.
- Develop a social media campaign to promote the importance of partnerships in business. Create engaging and informative posts, videos, and graphics that highlight successful partnership stories, tips for forming strong partnerships, and the benefits of collaboration.
- Use internet to get the details and prepare the project.

- **Section-B (Chart Work)**
 - **Make chart on given topic:**
Methods of computing New Profit sharing Ratio on admission of a Partner **OR**
Methods of computing Interest on Drawings by a Partner
- **Section-C (Learning and Pre-reading homework)**
 - **Learning Homework:** Learn Chapter 5,6 Journal Entries & Theories of Text Book (DK GOEL)
 - **Pre-Reading Homework:** Read Page no. 7.1 to 7.10 Issue of Debentures topic of Text Book (DK GOEL)
- **Section-D - Preparation of Bills (Cash or Credit)**
 - **Materials Required:** Bills of shopping items by you or any of Family Members during Holidays
 - **Steps to prepare:**
 - 1) Collect at least 5 Bills
 - 2) Prepare their Vouchers with Debit/Credit details
- **Section-E (Case Studies)** **(6)**
 - **Do given case studies**
 - (i) ABC Partnership Firm ABC Partnership Firm was formed by three partners, A, B, and C, with an equal investment of Rs. 1,00,000 each. They agreed to share profits and losses in the ratio of 3:2:1. After a year, they faced a loss of Rs. 60,000. However, Partner C was unable to contribute towards the loss. Analyze the situation and determine the following:
 - a) The amount of loss to be borne by each partner.
 - b) The treatment of C's inability to contribute towards the loss.
 - c) The adjustments required in the capital accounts of the partners.
 - (ii) XYZ Partnership Firm XYZ Partnership Firm consists of two partners, X and Y, who share profits and losses equally. After a few years of operation, Partner Y decided to withdraw from the partnership due to personal reasons. Analyze the situation and determine the following:
 - a) The treatment of Partner Y's retirement, including the settlement of his capital account.
 - b) The necessary adjustments to record the retirement in the books of accounts.
 - c) The impact of the retirement on the remaining partner's capital and profit-sharing ratio.
 - (iii) PQR Partnership Firm PQR Partnership Firm was formed by four partners, P, Q, R, and S, with a profit-sharing ratio of 4:3:2:1. After a successful year, the partners decided to admit a new partner, T, into the firm. T invested a substantial amount and was entitled to 20% of the profits. Analyze the situation and determine the following:
 - a) The treatment of T's admission, including the adjustment of goodwill and revaluation of assets and liabilities.
 - b) The new profit-sharing ratio and the calculation of the new partner's capital.
 - c) The allocation of the firm's profits and losses among the partners after T's admission.
 - (iv) **Formation of Partnership**
Two individuals, A and B, decide to start a business together. A invests Rs. 50,000 as capital, while B invests Rs. 75,000. They agree to share profits and losses equally. After six months, C joins the partnership by investing Rs. 1,00,000. Prepare the necessary journal entries to record the admission of C as a new partner.
 - (v) **Dissolution of Partnership**
A partnership consisting of three partners, X, Y, and Z, decides to dissolve the firm. They have the following capital balances: X (Rs. 1,00,000), Y (Rs. 80,000), and Z (Rs. 60,000). X and Y agree to pay off the liabilities and Z decides to retire from the partnership. Prepare the necessary journal entries to record the dissolution of the partnership.
 - (vi) **Admission of a Minor as a Partner**
A partnership firm decides to admit a minor, M, as a partner. The existing partners are P and Q. They agree to admit M as a partner with the condition that his share in the profits will be credited to his account and paid to him upon attaining majority. Discuss the legal implications and accounting treatment in such a scenario.
- **Section-F (Revision assignment)**



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Revision Assignment - 1

Class: 12th

Subject: Accountancy

Ch. Name: Partnership-Fundamentals

Chapter No.: 1

For recapitulation & solving the assignment the students should refer to their D K GOEL book of Accountancy (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

Read the following hypothetical text and answer the given questions:

Amit and Mahesh were partners in a fast-food corner sharing profits and losses in ratio 3:2. They sold fast food items across the counter and did home delivery too. Their initial fixed capital contribution was Rs 1,20,000 and Rs 80,000 respectively. At the end of first year their profit was Rs 1,20,000 before allowing the remuneration of Rs .3,000 per quarter to Amit and Rs. 2,000 per half year to Mahesh. Such a promising performance for first year was encouraging, therefore, they decided to expand the area of operations. For this purpose, they needed a delivery van, a few Scotties and an additional person to support. Six months into the accounting year they decided to admit Sundaram as a new partner and offered him 20% as a share of profits along with monthly remuneration of Rs 2,500. Sundaram was asked to introduce Rs 1,30,000 for capital and Rs 70,000 for premium for goodwill. Besides this Sundaram was required to provide Rs.1,00,000 as loan for two years. Sundaram readily accepted the offer. The terms of the offer were duly executed and he was admitted as a partner.

- Q.1. Remuneration will be transferred to _____ of Amit and Mahesh at the end of the accounting period.
- (a) Capital account (b) Loan account
(c) Current account (d) None of the above
- Q.2. Upon the admission of Sundaram the sacrifice for providing his share of profits would be done:
- (a) by Amit only (b) by Mahesh only
(c) by Amit and Mahesh equally (d) by Amit and Mahesh in the ratio of 3:2
- Q.3. Sundaram will be entitled to a remuneration of _____ at the end of the year.

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4. Define the following terms:-
- i) Partnership
ii) Charge vs. Appropriation
iii) Drawings made by partner
- Q.5. Application based question:-

- i) The goodwill of a firm is estimated at two years' purchase of the average profit of the last three years. The profits are as under:
- 2015-16 – Rs 20,000 (including an abnormal gain of Rs 5,000)
2016-17 – Rs 40,000 (after charging an abnormal loss of Rs 10,000)
2017-18 – Rs 42,000 (excluding Rs 2,000 as insurance premium of property now to be insured)
- Calculate the amount of goodwill.
- ii) Ahmad, Bheem and Daniel are partners in a firm. On 1st April 2011 the balance in their capital accounts stood at Rs.800000, Rs.600000 and Rs.400000 respectively. They shared profits in the proportion of 5:3: 2 respectively. Partners are entitled to interest on capital @5% per annum and salary to bheem @ Rs.3000 per month and a commission of Rs.12000 to Daniel as per the provisions of the partnership deed.
- Ahmad share of profits excluding interest on capital is guaranteed at not less than Rs.25000 p.a. Bheem share of profit including interest on capital but excluding salary is guaranteed at not less than Rs.55000 p.a. Any Deficiency arising on that account shall be met by Daniel. The profit of the firm for the year ended 31st March 2012 amounted to Rs.216000. Prepare profit and loss appropriation account for the year ended 31st March 2012.

Part-3

Numerical Questions

Q6. Solve the following questions:-

- i) There is a profit of Rs 25,000 on revaluation of assets and liabilities of the partnership firm of Mohit, Kanti and John. As a result of change in profit-sharing ratio, Mohit sacrifices his 3/10th share in favour of John. The partners decided to record the effect of revaluation without affecting the book values of the assets and liabilities by passing a single Journal entry.
- ii) On 1st April 2013 Brij and Nandan entered into partnership to construct toilets in government girls schools in the remote areas of Uttarakhand. They contributed capitals of Rs 10,00,000 and Rs 15,00,00 respectively. Their profit sharing ratio was 2:3 and interest allowed on capital as provided in the Partnership deed was 12% per annum. During the year ended 31st March, 2014 the firm earned a profit of Rs 2,00,000.
- Prepare Profit and Loss Appropriation Account of Brij and Nandan for the year ended 31st March, 2014.



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Revision Assignment - 2

Class: 12th

Subject: Accountancy

Ch. Name: Change in Profit Sharing Ratio

Chapter No.: 2

For recapitulation & solving the assignment the students should refer to their D K GOEL book of Accountancy (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 hypothetical text and answer the given questions:

A, B and C were partners sharing profits in the ratio of 2:2:1, decided to share future profits in 1:2:3. On this date firm had assets of Rs 3,80,000 including cash of Rs 20,000. The partner's capital accounts showed a balance of Rs 3,00,000 and reserves constituted the rest. Normal rate of return is 10% and goodwill of the firm is valued at Rs 75,000 at 3 year's purchase of super profits. On the basis of the above information, answer the following:

Q.1. Normal profit of the firm is

- | | |
|--------------|--------------|
| a) Rs 30,000 | b) Rs 38,000 |
| c) Rs 36,000 | d) Rs 40,000 |

Q.2. Super profit will be:

- | | |
|----------------|--------------|
| a) Rs 2,25,000 | b) Rs 13,000 |
| c) Rs 25,000 | d) Rs 75,000 |

Q.3. Average profit will be

- | | |
|--------------|--------------|
| a) Rs 13,000 | b) Rs 38,000 |
| c) Rs 25,000 | d) Rs 63,000 |

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- i) Goodwill
- ii) Average Profit
- iii) Number of Years Purchased

Q.5. Application based question:-

- i) X, Y and Z are partners sharing profits in the ratio of 4:3:2. From April 1, 2022, they decided to share the profits equally. On that date their books showed the following items:

Rs.

Profit and Loss Account (Cr.)	1,20,000
General Reserve	45,000
Workmen Compensation Reserve	60,000
Advertisement Suspense Account (Dr.)	90,000

Record the necessary Journal Entries.

- ii) L, M and N are partners sharing profit and losses in the ratio of 4:3:2. They decided to share future profits and losses in the ratio of 2:3:4 with effect from 1st April, 2017. An extract of their Balance sheet as at 31st March, 2017 is:

Liabilities	Rs	Assets	Rs
Investments Fluctuations Reserves	9,000	Investments (At cost)	1,00,000

Show the accounting treatment under the following alternative cases:

Case (i) If there is no other information.

Case (ii) If the market value of investments is Rs 1,00,000.

Case (iii) If the market value of investment is Rs 95,000.

Case (iv) If the market value of investment is Rs 1,09,000.

Case (v) If the market value of investment is Rs 73,000.

Part-3

Numerical Questions

Q.6. Solve the following questions:-

From the following information, calculate the value of goodwill of the firm of Chander and Gupta:

- (a) At 3 years purchase of average profits.
 - (b) At 3 years of super profits.
 - (c) On the basis of capitalization of super profits.
 - (d) On the basis of capitalization of average profits.
- (i) Average capital employed in the business Rs 7,00,000
 - (ii) Net trading results of the firm for the past years = Profit 2014 – Rs 1,47,600; Loss 2015 – Rs 1,48,000; Profit 2016 – Rs 4,48,700.
 - (iii) Rate of interest expected from capital having regard to the risk involved 18%.
 - (iv) Remuneration to each partner for his service Rs 500 per month.



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Revision Assignment - 3

Class: 12th

Ch. Name: Admission of Partner

Subject: Accountancy

Chapter No.: 3

For recapitulation & solving the assignment the students should refer to their D K GOEL book of Accountancy (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

Read the following hypothetical text and answer the given questions:

Sterling enterprises is a partnership business with Ryan, Williams and Sania as partners engaged in production and sales of electrical items and equipment. Their capital contributions were Rs.50,00,000, Rs.50,00,000 and Rs.80,00,000 respectively with the profit the sharing ratio of 5:5:8. As they are now looking forward to expanding their business, it was decided that they would bring in sufficient cash to double their respective capitals. This was duly followed by Ryan and Williams but due to unavoidable reasons Sania could not do so and ultimately it was agreed that to bridge the shortfall in the required capital a new partner should be admitted who would bring in the amount that Sania could not bring and that the new partner would get share of profits equal to half of Sania's share which would be sacrificed by Sania only. Consequent to this agreement Ejaz was admitted and he brought in the required capital and Rs.30,00,000 as premium for goodwill.

Based on the above information you are required to answer the following questions.

1. What will be the new profit-sharing ratio of Ryan, Williams, Sania and Ejaz?
(a) 1:1:1:1 (b) 5:5:8:8
(c) 5:5:4:4 (d) None of the above
2. What is the amount of capital brought in by the new partner Ejaz?
(a) Rs.50,00,000 (b) Rs.80,00,000
(c) Rs.40,00,000 (d) Rs.30,00,000
3. What is the value of the goodwill of the firm?
(a) Rs.1,35,00,000 (b) Rs.30,00,000
(c) Rs.1,50,00,000 (d) Cannot be determined from the given data.

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4. Define the following terms:-
- i) Goodwill treatment on Admission of Partner
 - ii) Revaluation
 - iii) Adjustment of Capital
- Q.5. Application based question:-

1. Mamta and Seema are partners in a firm, sharing profits in the ratio of 3:2. They admit Rakhi as a partner with 1/4th share in the profits of the firm. Rakhi brings Rs 8,00,000 as her share of capital. The value of the total assets of the firm was Rs 16,00,000 and outside liabilities were valued at Rs 2,00,000 on that date.

Give the necessary journal entry to record goodwill at the time of Rakhi's admission. Also show your working.

2. Verma and Sharman are partners in a firm sharing profits and losses in the ratio of 5:3. They admitted Ghosh as a new partner for one-fifth share of profits. Ghosh is to bring in Rs 20,000 as capital and Rs 4,000 as his share of goodwill premium. Give the necessary journal entries:

- When the amount of goodwill is retained in the business
- When the amount of goodwill is fully withdrawn.
- When 50% of the amount of goodwill is withdrawn.
- When goodwill is paid privately.

Part-3

Numerical Questions

Q.6. Solve the following questions:-

- A and B are partners in a firm sharing profits in the ratio of 3:1. They admitted C as a new partner. The new profit-sharing ratio A, B and C will be 2:1:1. C brought Rs 2,50,000 for his capital but could not bring his share of goodwill (premium) Rs 10,000 in cash. Pass necessary journal entries in the books of the firm for the amount of capital brought in by C and for the treatment of goodwill.
- Mohan and Sohan were partners in a firm sharing profits in the ratio of 3:2. On 1st April, 2013 they admitted Nusrat as partner in the firm. The Balance Sheet of Mohan and Mahesh on that date was as under:

Balance Sheet of Mohan and Mahesh			
<i>as at 1st April, 2013</i>			
Liabilities	(₹)	Assets	(₹)
Creditors	2,10,000	Cash in hand	1,40,000
Workmen's Compensation Reserve	2,50,000	Debtors	1,60,000
General Reserve	1,60,000	Stock	1,20,000
Capitals:		Machinery	1,00,000
Mohan	1,00,000	Building	2,80,000
Mahesh	80,000		
	1,80,000		
	8,00,000		8,00,000

It was agreed that:

- The value of Building and Stock be appreciated to ₹3,80,000 and ₹1,60,000 respectively.
- The liabilities of workmen's compensation reserve was determined at ₹2,30,000.
- Nusrat brought in her share of goodwill ₹1,00,000 in cash.
- Nusrat was to bring further cash as would make her capital equal to 20% of the combined capital of Mohan and Mahesh after above revaluation and adjustments are carried out.
- The future profit sharing ratio will be for Mohan $\frac{2}{5}$ th, Mahesh $\frac{2}{5}$ th, Nusrat $\frac{1}{5}$ th.

Prepare Revaluation Account, Partners' capital accounts and Balance Sheet of the new firm. Also show clearly the calculation of capital brought by Nusrat.



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Revision Assignment - 4

Class: 12th

Ch. Name: Retirement of a Partner

Subject: Accountancy

Chapter No.: 4

For recapitulation & solving the assignment the students should refer to their D K GOEL book of Accountancy (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

Read the following hypothetical text and answer the given questions:

Dev, Gautam and Kamal were three partners sharing profits and losses in the ratio of 2:1:2. On 1st April, 2020, their capital account balances stood at Rs 90,000, Rs 80,000 and Rs 20,000 (Dr.) respectively.

On this date they admitted Naveen the partnership with a capital of Rs 50,000.

Naveen is to have 1/4th share of the profits with a guaranteed minimum share of distributable profit of Rs 40,000.

The new profit-sharing ratio among the partners being Dev: Gautam : Kamal : Naveen = 6:2:7:5.

The profit of the firm for the year 2020-21 was Rs 1,60,000 before the following adjustments were made:

- Interest on Capital @ 10% per annum to be allowed to the partners.
- Interest on Drawings : Dev: Rs 3,000; Kamal: Rs 6,000
- Salary to Partners :Gautam Rs 7,000; Naveen : Rs 10,000

Q.1. The sacrificing ratio of Dev, Gautam and Kamal will be:

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

Q.2. The total interest on capital allowed by the firm to the partners will be:

- (a) Rs. 22,000 (b) Rs. 23,000
(c) Rs.21,400 (d) Rs 23,100

Q.3. Deficiency in Naveen's Profit will be:

- (a)Rs 8,000 (b) Rs 7,500
(c) Rs 12,500 (d) Rs 12,000

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- Hidden Goodwill
- Goodwill treatment on retirement of a Partner
- P&L Suspense Account

Q.5. Application based question:-

1. A, B and C were partners sharing profits in the ratio of 6:4:5. Their capital were A – Rs 1,00,000, B – Rs 80,000 and C – Rs 60,000. On 1st April, 2017, B retired from the firm and the new profit-sharing ratio between A and C was decided as 11:4. On B's retirement the goodwill of the new firm was valued at Rs 1,80,000. Showing your calculation clearly, pass necessary journal entry for the treatment of goodwill on B's retirement.
2. Arjun, Bhim and Nakul are partners sharing profits and losses in the ratio of 14:5:6 respectively. Bhim retires and surrenders his 5/25th shares in favour of Arjun. The goodwill of the firm is valued at 2 years' purchase of super profits based on average profits of last 3 years. The profits for the last 3 years are Rs 50,000, Rs 55,000 and Rs 60,000 respectively. The normal profits for

the similar firm are Rs 30,000. Goodwill already appears in the books of the firm are Rs 75,000. The profit for the first year after Bhim's retirement was Rs 1,00,000. Give the necessary Journal Entries to adjust Goodwill and distribute profits showing your workings.

Part-3

Numerical Questions

Q.6. Solve the following questions:-

1. Arun, Varun and Karan Were Partners in a Firm Sharing Profits in the Ratio of 4:3:3. on 31-3-2014, Their Balance Sheet Was as Follows :

Liabilities		Amount (Rs)	Assets		Amount (Rs)
Creditors		17,000	Cash	8,000	
Bills payable		12,000	Debtors	13,000	
Karan's loan		28,000	Bills Receivables	9,000	
Capitals:			Furniture	27,000	
Arun	70,000		Machinery	1,25,000	
Varun	68,000	1,38,000	Karan's Capital	13,000	
		1,95,000		1,95,000	

On 30.9.2014, Karan Died. The Partnership Deed Provided for the Following to the Executors of the Deceased Partner:

- His share in the goodwill of the firm calculated on the basis of three years purchase of the average profits of the last four years. The profits of the last four years were Rs 1,90,000; Rs 1,70,000; Rs 1,80,000 and Rs 1,60,000 respectively.
- His share in the profits of the firm till the date of his death calculated on the basis of the average profits of the last four years.
- Interest @ 8% p.a. on the credit balance, if any, in his capital account.
- Interest on his loan @ 12% p.a.

Prepare Karan's Capital Account to Be Presented to His Executors, Assuming that His Loan and Interest on a Loan Was Transferred to His Capital Account.

2. Anita, Babita and Chanderkala are partners in a firm. Anita retires and the Balance Sheet of this firm on that date is as under:

Liabilities		(₹)	Assets		(₹)
Creditors		4,000	Cash at Bank	6,000	
Reserve		4,500	Debtors	16,000	
Workmen's Compensation Fund		5,000	Furniture	15,000	
Profit and Loss Account		2,500	Plant	20,000	
Capitals:			Patents	4,000	
Anita	20,000				
Babita	15,000				
Chanderkala	10,000	45,000			
		61,000		61,000	

On retirement it was found that patents were valueless, furniture is to be brought down Rs 12,000 and plant is reduced by Rs 5,000 and there was a liability on account of workmen's compensation found Rs 3,000. Record necessary entries at the time of retirement.



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Revision Assignment - 5

Class: 12th

Ch. Name: Dissolution of Partnership Firm

Subject: Accountancy

Chapter No.: 5

For recapitulation & solving the assignment the students should refer to their D K GOEL book of Accountancy (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

Read the following hypothetical text and answer the given questions:

P, Q and R are partners running a departmental store and sharing profits equally. R started a new business of his own and since R was unable to devote any time to the existing business, they decided that R will get $1/5^{\text{th}}$ in future profits. They also decided to make adjustment for goodwill on the basis of 3 years purchases of super profits of last 5 years. Capital investment of the firm is Rs 15,00,000 and a fair return on capital is 12%. Profits of the last 5 years were as follows:

Year	Profit (Rs.)
Profit for the year ended 31 st march 2016	: 1,60,000
Profit for the year ended 31 st March, 2017	: 3,00,000
Profit for the year ended 31 st March, 2018	: 4,60,000 (including an abnormal gain of Rs 60,000)
Profit for the year ended 31 st March, 2019	: 4,00,000 (after charging an abnormal loss of Rs 40,000)
Profit for the year ended 31 st March, 2020	: 3,00,000

On the basis of above information, answer the following:

- Q.1. Average maintainable profits will be:
- (a) Rs 10,00,000 (b) Rs 3,20,000
(c) Rs 2,00,000 (d) Rs 2,08,000
- Q.2. Normal profit of the firm is:
- (a) Rs 1,20,000 (b) Rs 3,00,000
(c) Rs 3,20,000 (d) Rs 1,80,000
- Q.3. Value of goodwill of the firm will be:
- (a) Rs 60,000 (b) Rs 84,000
(c) Rs 80,000 (d) Rs 20,000

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4. Define the following terms:-
- i)
ii)
iii)
- Q.5. Application based question:-
1. Pass the necessary journal entries for the following transactions on the dissolution of the firm of P and Q after the various assets (other than cash) and outside liabilities have been transferred to Realisation account:
- (i) Bank loan Rs 12,000 was paid.
(ii) Stock worth Rs 16,000 was taken over by Partner Q.
(iii) Partner P paid a creditor Rs 4,000.
(iv) An asset not appearing in the books of account realized Rs 1,200.

- (v) Expenses of realisation Rs 2,000 were paid by partner Q.
- (vi) Profit on realisation Rs 36,000 was distributed between P and Q in 5:4 ratio.
2. Pass the necessary journal entries for the following transaction on the dissolution of the firm of Sudha and Shiva after the various assets (other than cash) and outside liabilities have been transferred to Realisation Account:
- (i) Sudha agreed to pay off her husband's loan Rs 19,000.
- (ii) A debtor whose debt of Rs 9,000 was written off in the books paid Rs 7,500 in full settlement.
- (iii) Shiva took over all investments at Rs 13,300.
- (iv) Sundry Creditors Rs 10,000 were paid at 9% discount.
- (v) Realisation expenses Rs 3,400 were paid by Sudha for which she was allowed Rs 3,000.
- (vi) Loss on realisation Rs 9,400 was divided between Sudha and Shiva in 3:2 ratio.

Part-3
Numerical Questions

Q.6. Solve the following questions:-

1. Pass necessary journal entries on the dissolution of a partnership firm in the following cases:
- i) Expenses of dissolution were Rs 4,500.
- ii) Expenses of dissolution Rs 5,000 were paid by a partner, Sudhir.
- iii) Sudha, a partner, agreed to do the dissolution work for a commission of Rs 7,300. She also agreed to bear the dissolution expenses. Actual dissolution expenses paid by Sudha were Rs 7,500.
- iv) Somesh, a partner, agreed to do the dissolution work for a commission of Rs 5,000. He also agreed to bear the dissolution expenses. Actual dissolution expenses Rs 4,750 were paid from the firm's bank account.
- v) Sheetal, a partner, was appointed to look after the dissolution work for a remuneration of Rs 8,000. She also agreed to bear the dissolution expenses. Actual dissolution expenses Rs 7,500 were paid by Smita, another partner, on behalf of Sheetal.
- vi) Somaya, a partner, was appointed to look after the dissolution process for a remuneration of Rs 11,000. Somaya agreed to bear the dissolution expenses. Somaya took over stock of the same value as her remuneration. The stock had already been transferred to realisation account.
2. Shanti and Satya were partners in a firm sharing profits in the ratio of 4:1. On 31st March, 2013 their Balance Sheet was as follows:

Balance Sheet of Shanti and Satya			
<i>as at 31st March, 2013</i>			
Liabilities	(₹)	Assets	(₹)
Creditors	45,000	Bank	55,000
Workmen Compensation Fund	40,000	Debtors	60,000
Satya's Current Account	65,000	Stock	85,000
Capitals:		Furniture	1,00,000
Shanti	2,00,000	Machinery	1,30,000
Satya	1,00,000	Shanti's Current Account	20,000
	4,50,000		4,50,000

On the above date the firm was dissolved:

- (1) Shanti took over 40% of the stock at 10% less than its book value and the remaining stock was sold for Rs 40,000. Furniture realised Rs 80,000.
- (2) An unrecorded investment was sold for Rs 20,000. Machinery was sold at a loss of Rs 60,000.
- (3) Debtors realised 55,000.
- (4) There was an outstanding bill for repairs for which Rs 19,000 were paid.

Prepare Realisation Account.



R.E.D. Group of Schools

Summer Holidays Homework

SESSION: 2023-24

CLASS – 11th to 12th

Subject: Business Studies

Text Book: Poonam Gandhi

1. Syllabus Covered up to MAY END

Chapter No. 1, Chapter Name - Nature and Significance of Management

Chapter No. 2, Chapter Name - Principles of Management

Chapter No. 3, Chapter Name - Business Environment

Chapter No. 4, Chapter Name - Planning

Chapter No. 5, Chapter Name - Organising

Chapter No. 6, Chapter Name - Staffing

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

- Concept of Management
- Concept of Coordination
- Principles of Management - Fayol's Principles and Taylor's Scientific Principles
- Concept of Business Environment and its types
- Concept of Planning
- Concept of Organising
- Concept of Staffing

3. Formative Assessment based Homework:

Section-A - Working model

Section-B - Case Studies

Section-C - Chart Work

Section-D - Enquiry based activity

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
- Resources as per activity

6. Instruction/Guidelines for Formative Assessment based Homework:

- Section-A (Working model)

<i>Topic</i>	<i>Roll No.</i>
Process of Staffing	1 to 10
Functions of Management	11 to 20
Delegation and Decentralisation	21 to 30

- **Materials required as per project.**
- **Steps to prepare:**
 - Read the chapter from book.
 - Search from Internet.
 - Prepare the model.
- **Section-B (Case Studies)** (2)

Do given case Studies

 1. Yash Ltd. is facing a lot of problems these days. It manufactures electronic goods like washing machines, microwave ovens, refrigeration and air-conditioners. The company's margins are under pressure and the profits and market marketing department blames production department for producing goods, which are not of good quality to meet customers' expectations. The finance department blames both production and marketing departments for declining return on investment and bad marketing.
 - (a) What quality of management do you think the company is lacking? Justify your answer.
 - (b) State the importance of the concept identified in (a)
 2. Aman, Ahmad and Ally are partners in a firm engaged in the distribution of dairy products in Maharashtra state. Aman is a holder of Senior Secondary School Certificate from Central Board of Secondary Education with Business Studies as one of his elective subjects. Ahmad had done his post graduation in History and Ally in dairy farming. One day there was a serious discussion between Ahmad and Ally regarding the nature of management. Ahmad argued that management was a profession whereas Ally argued against it saying that the legal and medical professions are the only professions because they fulfill all the conditions of profession. Aman on the basis of his knowledge of business studies explained the nature of management as a profession to Ahmad and Ally. Explain how Aman would have satisfied both Ahmad and Ally.
- **Section-C (Chart Work)**
 - **Make chart on given topic.**
Process of Planning
OR
Functional Structure and Divisional Structure
- **Section-D (Enquiry based activity)**
 - **Materials Required:** Notebook, Stationary
 - **Steps to prepare:**
 - Visit a nearby general store.
 - Observe the working of that store.
 - List down their management process.
- **Section-E (Learning and Pre-reading homework)**
 - **Learning Homework:** Learn Ch. No. 5 and 6 of Poonam Gandhi Book.
 - **Pre-Reading Homework:** Read Ch. No. 8 of Poonam Gandhi Book.
- **Section-F (Revision assignment)**



R.E.D. Group of Schools

Revision Assignment - 1

Class: 12th

Ch. Name: Nature and Significance of Management

Subject: Business Studies

Chapter No.: 1

For recapitulation & solving the assignment the students should refer to their Poonam Gandhi 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

Josh Enterprises decides to have a meeting of all the key employees of different departments in the organisation. The main motive is to tell the employees to keep the target of 20% increase in sales as the main objective when they work throughout the year. The meeting is full of ideas regarding the employees and processes involved. Various plans are made to harness the potential of the employees and streamline the processes. However with the passage of a few days the external business environment checks the capability of the organisation to adapt to the situations. The company successfully comes out at the end of the year with flying colours.

- Q.1 What are the various characteristics of management you can find highlighted here?
- Q.2 Identify the lines in which these characteristics have been highlighted.
- Q.3 Explain those characteristics.

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4. Define the following terms:-
- Coordination
 - Efficiency
 - Effectiveness
- Q.5. Application based question:-
- “Management is regarded as an Art by some, as Science or as an inexact Science by other. The truth seems to be somewhere in between.” In the light of this statement explain the true nature of management.
 - A petrol pump needs to be managed as much as a hospital or a school. What managers do in India, the USA, Germany or Japan is the same. How they do it may be quite different. This difference is due to the differences in culture, tradition and history. Identify and explain characteristics of management that has been mentioned here.

Part-3

Short Questions

- Q.6. Answer the following questions:-
- Explain the functions of Management.
 - Explain Coordination as an essence of management.



R.E.D. Group of Schools

Revision Assignment - 2

Class: 12th

Ch. Name: Principles of Management

Subject: Business Studies

Chapter No.: 2

For recapitulation & solving the assignment the students should refer to their Poonam Gandhi 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

The plant superintendent of a company is very sad. When he was on leave he was expecting his subordinates to take the remaining work to the finish. However he finds a new way of dealing with this problem. He develops a system of suggestion building from the side of workers. For this a suggestion/complain box is to be kept where the workers can drop their advice and hence take steps from their side.

- Q.1 Which principle of management has been implemented here off late by the plant superintendent?
Q.2 Explain the principle identified in part-1.
Q.3 Who has given this principle?

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4. Define the following terms:-
i) Stability of tenure of personnel
ii) Differential piece wage system
iii) Cooperation, not individualism
- Q.5. Application based question:-
1. The plant superintendent of a company is very sad. When he was on leave he was expecting his subordinates to take the remaining work to the finish. However he finds a new way of dealing with this problem. He develops a system of suggestion building from the side of workers. For this a suggestion/complain box is to be kept where the workers can drop their advice and hence take steps from their side.
(a) Which principle of management has been implemented here off late by the plant superintendent?
2. Every year a meeting is organized in the lawns of the owner of a company. In this meeting the owner of the company grants some funds for the benefit of the families of the employees. The employees on the other hand never resist any change or put excessive demands. The general environment in the company is very supportive to the employees. The employee turnover ratio is very low.
(b) Which concept of management is discussed here? Which principle of management will be easily followed here?

Part-3

Short Questions

- Q.6. Answer the following questions:-
i) How the principle of F.W. Taylor and Fayol are complementary to each other?
ii) Discuss the scientific techniques of management given by FW Taylor.



R.E.D. Group of Schools

Revision Assignment - 3

Class: 12th

Ch. Name: Business Environment

Subject: Business Studies

Chapter No.: 3

For recapitulation & solving the assignment the students should refer to their Poonam Gandhi 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

India's craft heritage is surviving because of its customs and traditions. Crafts products made by craftsmen of Rajasthan, Gujarat and Assam etc are not only used in the country but are also exported to USA, Germany, UK and France and other countries of the world. The volume of exports of these products gives India an advantage in balance of payments and the much needed foreign exchange. The Prime Minister desires that the handicraft industry should be expanded by linking it with technology. Focus should be on changing the manufacturing process, ensuring durability and adapting innovations.

Q.1 Identify the four dimension of business environment.

Q.2 Quote the line.

Q.3 Explain them.

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

i) General environment ii) Specific environment iii) Demonetisation

Q.5. Application based question:-

1. The top officials of a country's Government held a meeting in order to speed up the business growth. In the meeting, it was decided that there was a need for granting several exemptions to the Business Units already established. Similarly, they felt that with a view to setting up new Business Units they young men needed to be encouraged. Also it was emphasized in the meeting that the entry of Multi-national companies needed to be simplified. Besides, priority was given to relaxing restrictions imposed on Import Business. The main reason for the Government to think like this was to speed up the economic growth.

(a) Identify and explain the likely impact of the Government's policy on business described in the paragraph given above.

2. Naman and Govind after finishing their graduation under vocational stream decided to start their own travel agency which will book Rail Tickets and Air Tickets on commission basis. They also thought of providing tickets within ten minutes through the use of internet. They discussed the idea with their Professor Mr. Mehta who liked the idea and suggested them to first analyse the business environment which consists of investors', competitors and other forces like social, political etc. that may affect their business directly or indirectly. He further told them about the technological improvements and shifts in consumer preferences that were taking place and hence they should be aware of the environmental trends and changes which may hinder their business performance. He emphasised on making plans keeping in mind the threat posed by the competitors, so that they can deal with the situation effectively. This alignment of business operations with the business environment will result in better performance.

(a) Identify and state the component of business environment highlighted in the above Para.

(b) State any two features of business environment as discussed by Professor Mehta with Naman and Govind.

Part-3

Short Questions

Q.6. Answer the following questions:-

i) Explain the 5 dimensions of business environment.

ii) Explain the concept of Demonetisation.



R.E.D. Group of Schools

Revision Assignment - 4

Class: 12th

Ch. Name: Planning

Subject: Business Studies

Chapter No.: 4

For recapitulation & solving the assignment the students should refer to their Poonam Gandhi 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

Suhasini, a home science graduate from a reputed college, has recently done a cookery course. She wished to start her own venture with a goal to provide 'health food' at reasonable prices. She discussed her idea with her teacher (mentor) who encouraged her. After analysing various options for starting her business venture, they short listed the option to sell readymade and 'ready to make' vegetable shakes and sattu milk shakes. Then, they weighed the pros and cons of both the short listed options.

- Q.1 List the points of planning process mentioned in above paragraph.
Q.2 Quote the line.
Q.3 Explain them.

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.4. Define the following terms:-
i) Objective
ii) Strategy
iii) Programme
- Q.5. Application based question:-
1. Dheeraj is a very hard working manager. After working for the implementation of his well chalked out plan he, from the start of July, decides to see in what ways and up to what accuracy has his plan been implemented.
(a) Which step of the planning process will be involved by Dheeraj from the starting of July?
2. Identify the types of plans:
(a) Ramesh is a senior middle level manager. He is busy in allocating resources to his staff, he has also finalised the objectives and decided the course of action to be followed. He is expecting energy in his staff for the whole season but he will have to be cautious.
(b) Suresh is giving a speech to the workers of his factory. He is the owner of a toy manufacturing factory and has 123 workers. He tells them that this year's target of production is 7.5 lakh toys.
(c) On the wall of 'Health is Wealth' hospital a board is hanging. On this board. It is written 'We care for the health of senior citizens as our topmost priority'. This hospital is known for treating people aged more than 60 years.

Part-3

Short Questions

- Q.6. Answer the following questions:-
i) Explain the process of planning.
ii) Explain the features of planning.



R.E.D. Group of Schools

Revision Assignment - 5

Class: 12th

Ch. Name: Organising

Subject: Business Studies

Chapter No.: 5

For recapitulation & solving the assignment the students should refer to their Poonam Gandhi 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

Alliance Ltd. is engaged in manufacturing plastic buckets. The objective of the company is to manufacture 100 buckets a day. To achieve this, the efforts of all departments are coordinated and interlinked and authority-responsibility relationship is established among various job positions. There is clarity on who is to report to whom.

Q.1 Name the function of management discussed above.

Q.2 Explain the meaning of authority.

Q.3 Explain the meaning of responsibility.

Part-2

Subject Specific conceptual definitions & Application based Questions

Q.4. Define the following terms:-

- i) Divisional structure
- ii) Formal organisation
- iii) Functional structure

Q.5. Application based question:-

1. Due to proper organizing and division of work, a company goes for systematic assignment of jobs among the employees, which importance of organizing is highlighted here? Give three more importance of organizing?
2. A school principle believes in proper organizing. He time and again tells his staff to be organized as he believes that through proper organising they can move away from present norms and accept new challenges with success. They will be able to add more activities and projects in their yearly plan.
 - (a) Which importance of organizing has been indicated in the above paragraph?
 - (b) What is Organisation Structure? Which type of organisation is 'School'?

Part-3

Short Questions

Q.6. Answer the following questions:-

- i) Explain the process of delegation.
- ii) Differentiate between Functional structure and Divisional structure.



R.E.D. Group of Schools

Revision Assignment - 6

Class: 12th

Ch. Name: Staffing

Subject: Business Studies

Chapter No.: 6

For recapitulation & solving the assignment the students should refer to their Poonam Gandhi 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

Ganesh was concerned about the sedentary lifestyle people are leading nowadays. Their dependency on outside food is also increasing because corporate work culture demands working till late night at offices. So, he decided to start a restaurant, 'Healthy Eating Point' to provide healthy food options to customers. After completing planning and organising functions, he identified the various job positions that are required to be filled i.e. a General Manager, an Accountant, two Chefs, two boys for serving the food in the restaurant and three boys for home delivery of food. He decided that his father, Karan, would be the General Manager of the restaurant. He would be paid Rs 50,000 per month for his services. His father requested him to appoint his friend's son, Prem, as an accountant who is well qualified for this post. Ganesh agreed to this proposal. Earlier, Prem had a business of providing unskilled workers to different organisations from remote areas of the country. Prem took permission from Ganesh to continue with the old business. Ganesh happily agreed and asked him to provide five boys for serving and delivering the food. For the appointment of the two Chefs, Ganesh approached a renowned Hotel Management Institute and was satisfied with the Chefs provided by the institute.

- Q.1 Explain the two sources of recruitment being used by Ganesh for filling up the various job positions.
Q.2 Also, give the meaning of the function of management discussed in the above case.

Part-2

Subject Specific conceptual definitions & Application based Questions

- Q.3. Define the following terms:-
i) Recruitment
ii) Training
iii) Development
- Q.4. Application based question:-
1. Human Resource Management includes many specialized activities and duties which the human resource personnel must perform. In the light of this statement, explain any four such duties performed by Human Resource Manager.
2. Managers in the marketing department are under stress as they have to handle more than two territories. The work stress has led to dissatisfaction among the employees and managers.
(a) Name and explain the step of staffing process which has not been performed properly.
(b) State the next two stages immediately following the step identified in part 'a'.

Part-3

Short Questions

- Q.5. Answer the following questions:-
i) Explain the methods of training.
ii) Explain six ways of external recruitment.



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.

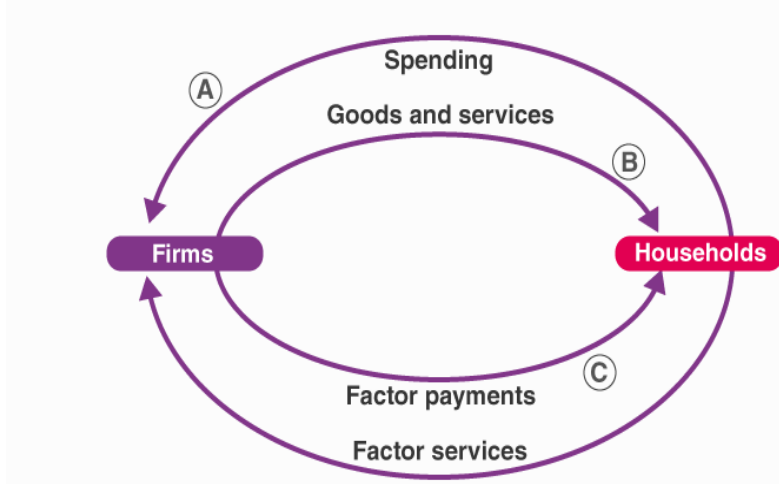
OR

- 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.

o 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



o Section-C- (Chart Work)

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

OR

- Topic Saving curve and its types.

o Section-D- Current affairs

- Collect data on the given issue in economy.
 - **Materials Required:** Economic crisis SriLanka (2019-Present)
 - **Stepstoprepare:**

Search data on type of economy in SriLanka 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.

o 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.

o 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)

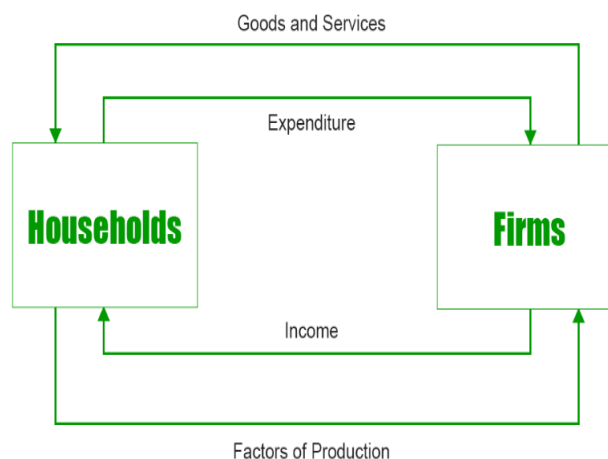
Part-1

(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) GDP_{mp} (b) NNP_{fc} (c) NDP_{mp} (d) NNP_{mp}
- 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

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



RED GROUP OF SCHOOLS

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 .

Part – III

(Application Based Questions)

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

10. Prove that $\cot^{-1}\left(\frac{1+\cos x}{\sin x}\right) = \frac{x}{2}$.

11. Prove that $\tan^{-1}\left(\frac{\sqrt{1+x}-\sqrt{1-x}}{\sqrt{1+x}+\sqrt{1-x}}\right) = \frac{\pi}{4} - \frac{1}{2}\cos^{-1}x$.

12. Prove that $\tan^{-1}\frac{1}{2} + \tan^{-1}\frac{2}{11} = \tan^{-1}\frac{3}{4}$.

Part – IV

(Reason and Numerical Based Questions)

13. Evaluate : $\cos\left[\sin^{-1}\frac{1}{4} + \sec^{-1}\frac{4}{3}\right]$.

14. Prove that $\tan\left[\frac{1}{2}\sin^{-1}\frac{2x}{1+x^2} + \frac{1}{2}\cos^{-1}\frac{1-x^2}{1+x^2}\right] = \frac{2x}{1-x^2}$.

Part – V

(Case Study Based Questions)

15. If $f(x) = \tan^{-1}x \left(\frac{2x}{1-x^2}\right)$

Based on the above information, answer the following questions

i. $f(x)$ is equal to

- (a) $\tan^{-1}x$ (b) $2\tan^{-1}x$
(c) $\cot^{-1}x$ (d) $\sin^{-1}\left(\frac{1-x^2}{1+x^2}\right)$

ii. $f(x)$ is equal to

- (a) $\pi/2 + \cot^{-1}x$ (b) $\pi/2 - \cot^{-1}x$
(c) $\pi/2 + \sin^{-1}x$ (d) none of these

iii. Derivative of $f(x)$ is equal to

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

iv. $f(x)$ is equal to

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

Part – VI

(Analysis Based Question)

Answer the following question by organizing and integrating the information.

16. (i) If $\cos^{-1}\frac{x}{a} + \cos^{-1}\frac{y}{b} = \alpha$ prove that $\frac{x^2}{a^2} - 2\frac{xy}{ab}\cos\alpha + \frac{y^2}{b^2} = \sin^2\alpha$.

(ii) $(\tan^{-1}x)^2 + (\cot^{-1}x)^2 = \frac{5\pi^2}{8}$, 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 $a = b = c$.



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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.



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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 $\frac{dy}{dx} = \frac{x-1}{2x(x+1)}$.

Part – V

(Case Study Based Questions)

15. The derivative of f at $x = c$ is defined by: $f'(x) = \lim_{h \rightarrow 0} \frac{f(c+h) - f(c)}{h}$. A function is said to be differentiable at a point c if left hand derivative at $x=c$ is equal to the right hand derivative at $x=c$. Similarly, a function is said to be differentiable in an interval (a,b) , if it is differentiable at every point of (a,b) .

Based on the above information, answer the following questions:

(i) Derivative of $f(x) = \cos(\sqrt{x})$ is:

- (a) $-\sin(\sqrt{x})$ (b) $-\sin(\sqrt{x})/2\sqrt{x}$
(c) $\sin(\sqrt{x})$ (d) $1/2\sin(\sqrt{x})$

(ii) If $y = \sin t, x = \cos t$ then dy/dx is:

- (a) $\cos t$ (b) $-\tan t$ (c) $-\cot t$ (d) $\sin t$

(iii) $f(x) = |x|$ is:

- (a) Differentiable at all points $x \in \mathbb{R}$
(b) Differentiable at all points $x \in \mathbb{R} - \{0\}$
(c) Not Differentiable at $x = 1$
(d) None of these

(iv) Derivative of function $f(x) = \sin(x^2)$ is:

- (a) $2\cos(x^2)$ (b) $2x\cos(x^2)$
(c) $2x^2\sin(x)$ (d) $2\cos(x)$

Part – VI

(Analysis Based Question)

Answer the following question by organizing and integrating the information.

16. (i) If $y = x^{\sin x} + (\sin x)^{\cos x}$, find $\frac{dy}{dx}$.

(ii) $y = x^{\cos x} + (\cos x)^{\sin x}$, find $\frac{dy}{dx}$.