

Class 12

Ch-15 Business Correspondence

Q1: What is business correspondence?

Q2: What is the need of business correspondence?

Q3: What are the different types of business correspondence?

Q4: What is a memorandum?

Q5: What is business letter?

Class12 (History) Class: Tuesday(12/5/20)

Nkrumah the 1st PM of Ghana introduced industrialisation rapidly & for that he borrowed money from outside. Sudden fall of price of coco in world market left the country with a huge balance of payment deficits. Nkrumah with the passage of time showed his support for one party system & slowly it became authoritarian. He made the Trade Union Act & also Preventive Detention Act to suppress his opponents. The prisoners were often held without trial. He amended the Constitution which made the CPP party the only legal party. Even J. B. Danquah was arrested & he died in prison. Nkrumah acquired aircraft & ships. Moreover he introduced conscription too. When he went to China for official purpose then a coup happened & his rule was overthrown. He lived the rest of his life in exile at Guinea. He died in 1972.

Questions:

- a) What changes occurred due to the amendment of the Constitution?
- b) What had been the purpose of the Trade Union Act?
- c) Why did Nkrumah's opponents not question his policies?

Economic class 12

Ch-3 Elasticity of Demand

- Q1: What is income elasticity of demand?
- Q2: What is positive income elasticity of demand?
- Q3: What is the negative income elasticity of demand?
- Q4: What is zero elasticity of demand?
- Q5: What is cross elasticity of demand?
- Q6: What is positive cross elasticity of demand?
- Q7: What is negative elasticity of demand?
- Q8: What is zero cross elasticity of demand?

Sociology

Date – 12.05.2020

Class – XII

Political Organization

Panchayati Raj

The Three Tier system of Panchayat Raj Institution

- The structure is like Pyramid. At the base stands the unit of Democracy or Gram Sabha. This is a common forum of general discussion. All the people at the village level may participate in open discussion.
- The 73rd amendment provided a three tier system of Panchayati Raj for all states having population of over 20 lakhs.
- It became mandatory that election to be held every five years.
- It provides reservation of seats for the SC's, ST's and thirty percent seat for women.
- It constitutes District Planning Committee to prepare drafts and plans for development.

Functions of Panchayat Raj –

1. Agricultural development and irrigation facilities.
2. Land reforms
3. Eradication of Poverty.
4. Dairy farming, poultry, piggery and fish rearing.
5. Rural housing.
6. Safe drinking water.
7. Social forestry, fodder and fuel
8. Primary education, adult education and informal training
9. Roads and Buildings
10. Markets and fairs.
11. Child and women development
12. Welfare of weaker sections, scheduled Castes and Scheduled tribes

Some special provisions :-

- ❖ Enforcement of prohibition
- ❖ Protection of land

- ❖ Minor forest produce
Water resource
- ❖
- ❖ Village markets
- ❖ Development

Three tier system of Panchayati Raj

Gram Panchayat - Gram Panchayat is a local self government institution at the village or small town level in India and has a sarpanch as its elected head. A Gram Panchayat consists of 7 to 17 members, elected from the ward of the village, and they are called 'panch', with one – third of seats reserved for female candidates. To establish a Gram Panchayat in a village the population of the village should be atleast 500 people of voting age.

The main source of income of the Gram Panchayat is the property tax levied on buildings and open spaces within the village. Other sources of income include professional tax, taxes on pilgrimage, animal trade, grant received from the State Government in proportion of land revenue and the grants received from the District Councils of India (Zila Parishad). The gram sevak/gram vikas officer is the communicator in government and village Panchayats and works for the sarpanch.

Functions of Gram Panchayat

- (1) The **Gram Panchayat** shall be deemed to be the Executive Committee of the **Gram Sabha**.
- (2) The **Gram Panchayat** shall function under the general superintendence, control and direction of the **Gram Sabha**.
- (3) The Secretary of the **Gram Panchayat** will be deemed to be the Secretary of the **Gram Sabha**

Panchayat Samiti-

The second or middle tier of the Panchayati Raj is Panchayat Samiti, which provides a link between Gram Panchayat and a Zila Parishad.

The strength of a Panchayat Samiti also depends on the population in a Samiti area. In Panchayat Samiti, some members are directly elected. Sarpanchs of Gram Panchayats

Sarpanchs of Gram Panchayats are ex-officio members of Panchayat Samitis. However, all the Sarpanchs of Gram Panchayats are not members of Panchayat Samitis at the same time.

The number varies from State to State and is rotated annually. It means that only chairpersons of some Gram Panchayats in a Samiti area are members of Panchayat Samiti at a time.

In some panchayats, members of Legislative Assemblies and Legislative Councils, as well as members of Parliament who belong to the Samiti area, are co-opted as its members. **Chairpersons of Panchayat Samitis are, elected indirectly- by and from amongst the elected members thereof.**

Functions of Panchayat Samiti -

- Panchayat Samitis are at the **hub of developmental activities.**
- They are **headed by Block Development Officers (B.D.Os).**
- Some functions are entrusted to them like agriculture, land improvement, watershed development, social and farm forestry, technical and vocational education, etc.
- The second type of functions relates to the implementation of some specific plans, schemes or programmes to which funds are earmarked. It means that a Panchayat Samiti has to spend money only on that specific project. The choice of location or beneficiaries is, however, available to the Panchayat Samiti.

Zila Parishad -

- Zila Parishad or district Panchayat is the uppermost tier of the Panchayati Raj system.
- This institution has some directly elected members whose number differs from State to State as it is also based on population. Chairpersons of Panchayat Samitis are ex-officio members of Zila Parishads.

- **Members of Parliament, Legislative Assemblies and Councils belonging to the districts are also nominated members of Zila Parishads.**
- The chairperson of a Zila Parishad, called Adhyaksha or President is elected indirectly- by and from amongst the elected members thereof. The vice-chairperson is also elected similarly. Zila Parishad meetings are conducted once a month. Special meetings can also be convened to discuss special matters. Subject committees are also formed.
- Zila Parishad **meetings** are conducted **once a month**. Special meetings can also be convened to discuss special matters. Subject committees are also formed.

Functions of Zila Parishad -

- Zila Parishad **links Panchayat Samitis within the district.**
- It coordinates their activities and supervises their functioning.
- It prepares district plans and integrates Samiti plans into district plans for submission to the State Government.
- Zila Parishad looks after development works in the entire district.
- It undertakes schemes to improve agricultural production, exploit ground water resources, extend rural electrification and distribution and initiate employment generating activities, construct roads and other public works.
- It also performs welfare functions like relief during natural calamities and scarcity, the establishment of orphanages and poor homes, night shelters, the welfare of women and children, etc.
- In addition, Zila Parishads perform functions entrusted to them under the Central and State Government sponsored programmes. For example, Jawahar Rozgar Yojna is a big centrally sponsored scheme for which money is directly given to the districts to undertake employment-generating activities.

Home Work –

1. Write a short note on Zila Parishad.
2. Write a short note on Panchayat Samiti
3. What is the three tier system of Panchayat
4. Explain Gram Sabha.

Accountancy Class XII

Partnership Fundamental ; Revision (Part – 3)

Illustration 6 (Calculation of Opening Capital).

A and B are partners in a business and their capitals at the end of the year were ₹ 7,00,000 and ₹ 6,00,000 respectively. Calculate their opening capitals considering the following information:

- Drawings of A and B for the year were ₹ 75,000 and ₹ 50,000 respectively.
- B introduced capital of ₹ 1,00,000 during the year.
- Interest on drawings debited to the Capital Accounts of A and B were ₹ 7,500 and ₹ 5,000 respectively.
- Share of loss debited to each Partner's Capital Account was ₹ 20,000.

Solution:

CALCULATION OF OPENING CAPITAL

Particulars	A ₹	B ₹
Capitals at the end	7,00,000	6,00,000
Add: Drawings during the year	75,000	50,000
Interest on Drawings	7,500	5,000
Share of Loss for the year	20,000	20,000
	8,02,500	6,75,000
Less: Capital Introduced during the year	...	1,00,000
Opening Capitals or Capitals in the beginning	8,02,500	5,75,000

Alternatively, Capital Account of each partner may be prepared to determine Opening Capitals as follows:

Dr.		PARTNERS' CAPITAL ACCOUNTS				Cr.
Particulars	A ₹	B ₹	Particulars	A ₹	B ₹	
To Drawings A/c	75,000	50,000	By Balance b/d	8,02,500	5,75,000	
To Interest on Drawings A/c	7,500	5,000	(Balancing Figure)			
To Profit and Loss A/c (Share of Loss)	20,000	20,000	By Cash/Bank A/c (Add. Capital Introduced)	...	1,00,000	
To Balance c/d (Given)	7,00,000	6,00,000				
	8,02,500	6,75,000		8,02,500	6,75,000	

Illustration 7.

Akhil and Bhuvi are partners sharing profits and losses in the ratio of 3 : 1. On 1st April, 2018, their capitals were: A ₹ 5,00,000 and B ₹ 3,00,000. During the year ended 31st March, 2019, they earned net profit of ₹ 5,00,000. The terms of partnership are:

- (i) Interest on capitals is to be allowed @ 6% p.a.
- (ii) Akhil will get commission @ 2% on net sales.
- (iii) Bhuvi will get a salary of ₹ 5,000 per month.
- (iv) Bhuvi will get commission of 5% on profit after deduction of interest, salary and commission (including his own commission).

Partners' drawings during the year were: Akhil ₹ 80,000 and Bhuvi ₹ 60,000. Net sales for the year were ₹ 30,00,000. After considering the above factors, you are required to prepare Profit and Loss Appropriation Account and Capital Accounts of the Partners.

Solution:**PROFIT AND LOSS APPROPRIATION ACCOUNT**

Dr.		for the year ended 31st March, 2019		Cr.	
Particulars	₹	Particulars	₹		₹
To Interest on Capital A/cs:		By Profit and Loss A/c (Net Profit)			5,00,000
Akhil (₹ 5,00,000 × 6/100)	30,000				
Bhuvi (₹ 3,00,000 × 6/100)	18,000		48,000		
To Bhuvi's Salary A/c (₹ 5,000 × 12)			60,000		
To Commission A/c:					
Akhil (WN 1)	60,000				
Bhuvi (WN 2)	15,810		75,810		
To Profit transferred to Partners' Capital A/cs:					
Akhil (3/4)	2,37,142				
Bhuvi (1/4)	79,048		3,16,190		
			5,00,000		5,00,000

Dr.		PARTNERS' CAPITAL ACCOUNTS				Cr.	
Date	Particulars	Akhil ₹	Bhuvi ₹	Date	Particulars	Akhil ₹	Bhuvi ₹
2019				2018			
March 31	To Drawings A/c	80,000	60,000	April 1	By Balance b/d	5,00,000	3,00,000
March 31	To Balance c/d	7,47,142	4,12,858	2019			
				March 31	By Interest on Capital A/c	30,000	18,000
				March 31	By Profit and Loss Appropriation A/c (Salary)	—	60,000
				March 31	By Commission A/c	60,000	15,810
				March 31	By Profit and Loss Appropriation A/c (Profit)	2,37,142	79,048
		8,27,142	4,72,858			8,27,142	4,72,858

Working Notes:

1. Akhil's Commission = $\frac{2}{100} \times ₹ 30,00,000 = ₹ 60,000$.
2. **Bhuvi's Commission:**
 Net profit after charging interest, salary and Akhil's Commission but before charging Bhuvi's commission
 = ₹ (5,00,000 – 48,000 – 60,000 – 60,000) = ₹ 3,32,000
 Bhuvi's Commission after charging his own Commission = $\frac{5}{105} \times ₹ 3,32,000 = ₹ 15,810$.

Illustration 8.

On 1st April, 2019, Precious, Noble and Perfect entered into partnership with capitals of ₹ 60,000; ₹ 50,000 and ₹ 30,000 respectively.

Perfect advanced ₹ 10,000 as loan to the partnership on 1st October, 2019. The Partnership Deed contained the following clauses:

- (i) Interest on capitals @ 6% p.a.
- (ii) Interest on drawings @ 6% p.a. Each drew ₹ 4,000 at the end of each quarter commencing from 30th June, 2019.
- (iii) Working partners Precious and Noble to get salaries of ₹ 200 and ₹ 300 per month.
- (iv) Interest on loan was given to Perfect @ 6% p.a.
- (v) Profits and losses are to be shared in the ratio of 4 : 2 : 1 up to ₹ 70,000 and above ₹ 70,000 equally.

Net profit of the firm for the year ended 31st March, 2020 (before above adjustments) was ₹ 1,11,000.

Prepare Profit and Loss Appropriation Account and Personal Accounts of the Partners assuming capitals to be fixed. (ISC 1996, Modified)

Solution:**PROFIT AND LOSS APPROPRIATION ACCOUNT**

Dr.		for the year ended 31st March, 2020		Cr.	
Particulars	₹	Particulars	₹		
To Interest on Capital A/cs:		By Profit and Loss A/c	1,10,700		
Precious	3,600	(₹ 1,11,000 – ₹ 300			
Noble	3,000	being Interest on Loan by Perfect)			
Perfect	1,800	By Interest on Drawings A/cs (Note 1):			
To Partners' Salary A/cs:		Precious	360		
Precious	2,400	Noble	360		
Noble	3,600	Perfect	360	1,080	
To Balance c/d	97,380				
	<u>1,11,780</u>				<u>1,11,780</u>
To Profit trfd. to Current A/cs:		By Balance b/d	97,380		
First ₹ 70,000:					
Precious (4/7)	40,000				
Noble (2/7)	20,000				
Perfect (1/7)	10,000				
Next ₹ 27,380 (i.e., ₹ 97,380 – ₹ 70,000):					
Precious (1/3)	9,127				
Noble (1/3)	9,127				
Perfect (1/3)	9,126				
	<u>97,380</u>				<u>97,380</u>

PARTNERS' CAPITAL ACCOUNTS

Dr.		PARTNERS' CAPITAL ACCOUNTS						Cr.	
Particulars	Precious ₹	Noble ₹	Perfect ₹	Particulars	Precious ₹	Noble ₹	Perfect ₹		
To Balance c/d	60,000	50,000	30,000	By Bank A/c	60,000	50,000	30,000		

Dr.		PARTNERS' CURRENT ACCOUNTS						Cr.	
Particulars	Precious ₹	Noble ₹	Perfect ₹	Particulars	Precious ₹	Noble ₹	Perfect ₹		
To Drawings A/c	16,000	16,000	16,000	By Interest on Capital A/c	3,600	3,000	1,800		
To Interest on Drawings A/c	360	360	360	By Partners' Salary A/cs	2,400	3,600	—		
To Balance c/d	38,767	19,367	4,566	By P and L App. A/c (Profit)	49,127	29,127	19,126		
	55,127	35,727	20,926		55,127	35,727	20,926		

- Notes:** 1. Interest on Drawings of each Partner: On ₹ 4,000 for 9 months: ₹ 180 + on ₹ 4,000 for 6 months: ₹ 120 + on ₹ 4,000 for 3 months: ₹ 60.
Total Interest on Drawings = ₹ 180 + ₹ 120 + ₹ 60 = ₹ 360.
No Interest will be charged on last drawings since it is at the end of the accounting year.
2. Interest on Loan by Perfect ₹ 300 should be credited to Loan by Perfect Account.

Illustration 9.

A, B and C are partners in a firm. Their terms of agreement are:

Particulars	A	B	C
Interest on Capital	@ 6% p.a.	@ 6% p.a.	@ 6% p.a.
Interest on drawings (except salary) is to be charged	@ 6% p.a.	@ 6% p.a.	@ 6% p.a.
Salary	@ ₹ 500 p.m.	—	—
C is entitled to receive commission on the profits after charging such commission and making above adjustments	—	—	5%

On 1st April, 2019, A, B and C had capitals of ₹ 15,000; ₹ 20,000 and ₹ 12,000 respectively. B withdrew ₹ 2,000 on 31st December, 2019 and C introduced ₹ 2,000 on 1st March, 2020. A had no drawings except salary of ₹ 500 per month. B's drawings were ₹ 500 on 1st August and ₹ 700 on 30th November, 2019. C regularly drew at the rate of ₹ 200 at the end of each month. The profit before making above adjustments for the financial year ended 31st March, 2020 was ₹ 22,245. Prepare Profit and Loss Appropriation Account. (ISC, Modified)

Solution: PROFIT AND LOSS APPROPRIATION ACCOUNT for the year ended 31st March, 2020

Dr.				Cr.	
Particulars	₹	Particulars	₹		₹
To Interest on Capital A/cs (WN 1):		By Profit and Loss A/c (Net Profit)			22,245
A	900	By Interest on Drawings A/cs:			
B	1,170	B (₹ 500 × 8/12 × 6/100)	20		
C	730	(₹ 700 × 4/12 × 6/100)	14	34	
To Salary A/c (A)	6,000	C (₹ 2,400 × 5.5/12 × 6/100) (WN 2)	66		100
To Commission A/c (C) (₹ 13,545 × 5/105)	645				
To Profit trfd. to Capital A/cs:					
A	4,300				
B	4,300				
C	4,300				
	22,345				22,345

Working Notes:

- Calculation of Interest on Capitals:

Interest on A's Capital for 1 year @ 6% p.a.		₹ 900
Interest on B's Capital of ₹ 20,000 for 9 months @ 6% p.a.		900
Interest on B's Capital of ₹ 18,000 for 3 months @ 6% p.a.		270
Interest on C's Capital of ₹ 12,000 for 11 months @ 6% p.a.		660
Interest on C's Capital of ₹ 14,000 for 1 month @ 6% p.a.		70
		1,770
- Interest on C's drawings is calculated for 5.5 months on total drawings because he regularly drew at the rate of ₹ 200 at the end of each month.

Illustration 10.

Rahul, Shyam and Tarun are partners sharing profits and losses in proportion to their capitals in the beginning of the year. They are entitled to draw annually ₹ 3,000; ₹ 2,500 and ₹ 2,000 respectively against their anticipated share of profit. Any drawings in excess of these amounts are to be regarded as advances taken from the firm and are to be subject to interest @ 18% p.a. The capitals in the beginning of the year is to be allowed interest @ 15% p.a.

The capitals of the partners in the beginning of the year were Rahul ₹ 40,000; Shyam ₹ 30,000 and Tarun ₹ 20,000. The credit balances of their Current Accounts were Rahul ₹ 1,152; Shyam ₹ 1,864 and Tarun ₹ 576. Their drawings during the year were Rahul ₹ 7,000; Shyam ₹ 9,500 and Tarun ₹ 3,000. Net profit for the year ended 31st March, 2019 was ₹ 30,420.

Prepare Profit and Loss Appropriation Account, Capital and Current Accounts of the partners for the year ended 31st March, 2019.

Solution:**PROFIT AND LOSS APPROPRIATION ACCOUNT**

Dr.		for the year ended 31st March, 2019		Cr.	
Particulars	₹	Particulars	₹		
To Interest on Capital A/cs:		By Profit and Loss A/c (Net Profit)	30,420		
Rahul	6,000	By Interest on Drawings A/cs (Note):			
Shyam	4,500	Rahul on ₹ 4,000	360		
Tarun	3,000	(₹ 7,000 – ₹ 3,000)			
To Profit trfd. to Current A/cs:		Shyam on ₹ 7,000	630		
Rahul (4/9)	8,000	(₹ 9,500 – ₹ 2,500)			
Shyam (3/9)	6,000	Tarun on ₹ 1,000	90	1,080	
Tarun (2/9)	4,000	(₹ 3,000 – ₹ 2,000)			
	18,000				
	31,500				31,500

Dr.		PARTNERS' CAPITAL ACCOUNTS						Cr.		
Date	Particulars	Rahul ₹	Shyam ₹	Tarun ₹	Date	Particulars	Rahul ₹	Shyam ₹	Tarun ₹	
2019					2018					
Mar. 31	To Balance c/d	40,000	30,000	20,000	Apr. 1	By Balance b/d	40,000	30,000	20,000	
		40,000	30,000	20,000			40,000	30,000	20,000	

Dr.		PARTNERS' CURRENT ACCOUNTS						Cr.		
Date	Particulars	Rahul ₹	Shyam ₹	Tarun ₹	Date	Particulars	Rahul ₹	Shyam ₹	Tarun ₹	
2019					2018					
Mar. 31	To Drawings A/c	7,000	9,500	3,000	Apr. 1	By Balance b/d	1,152	1,864	576	
Mar. 31	To Interest on Drawings A/c	360	630	90	2019					
Mar. 31	To Balance c/d	7,792	2,234	4,486	Mar. 31	By Interest on Capital A/c	6,000	4,500	3,000	
					Mar. 31	By Profit and Loss Appropriation A/c	8,000	6,000	4,000	
		15,152	12,364	7,576			15,152	12,364	7,576	

Note: In the absence of actual dates of drawings, interest thereon has been calculated for the average period, i.e., 6 months.

Unsolved Questions

1. Anita, Lalita and Manju are partners in a firm sharing profits and losses equally with fixed capital of ₹ 2,50,000 each. On 1st January, 2020, Anita and Lalita gave loans of ₹ 1,50,000 each to the firm whereas Manju took a loan of ₹ 1,00,000 from the firm on the same date. It was agreed among the partners that Manju will pay interest @ 6% p.a. Interest on loan from partners was paid on 30th April, 2020. The firm closes its books on 31st March each year. Pass the Journal entries in the books of the firm for the year ended 31st March, 2020.
2. Akhil and Supreet entered into partnership on 1st April, 2018. They agreed that out of profits:
 - (i) Akhil will receive a salary of ₹ 500 per month;
 - (ii) Interest on capitals will be allowed @ 6% p.a.; and
 - (iii) Remaining profits will be divided equally.Akhil contributed a capital of ₹ 50,000 on 1st April, 2018 but Supreet brought in his capital of ₹ 1,00,000 on 1st July, 2018. During the year ended 31st March, 2019, the drawings were: Akhil ₹ 15,000 and Supreet ₹ 20,000. Profit before salary and interest was ₹ 50,000. Prepare Profit and Loss Appropriation Account and the Capital Accounts of the partners.
3. Satish and Parkash are partners in a business with fixed capitals of ₹ 50,000 and ₹ 30,000 respectively. They are entitled to interest on the fixed capitals @ 5% p.a. but not on Current Account. Satish is entitled to a salary of ₹ 100 per month which is not yet drawn. Drawings are permitted interest free to the extent of opening credit balance in the Current Account. Drawings in excess of the limit are subject to interest at a flat rate of 8% irrespective of the date of withdrawal. The opening balances in the current accounts are Satish ₹ 1,500 and Parkash ₹ 2,000 respectively. Drawings of each partner are ₹ 3,000.
Net profit for the year ended 31st March, 2019 was ₹ 15,000. Divisible profits are to be shared—Satish 60% and Parkash 40% up to first ₹ 4,000. Balance is shared equally.
Prepare Profit and Loss Appropriation Account and Partners' Capital and Current Accounts.

**CLASS – 12
COMPUTER SCIENCE**

ARRAYS

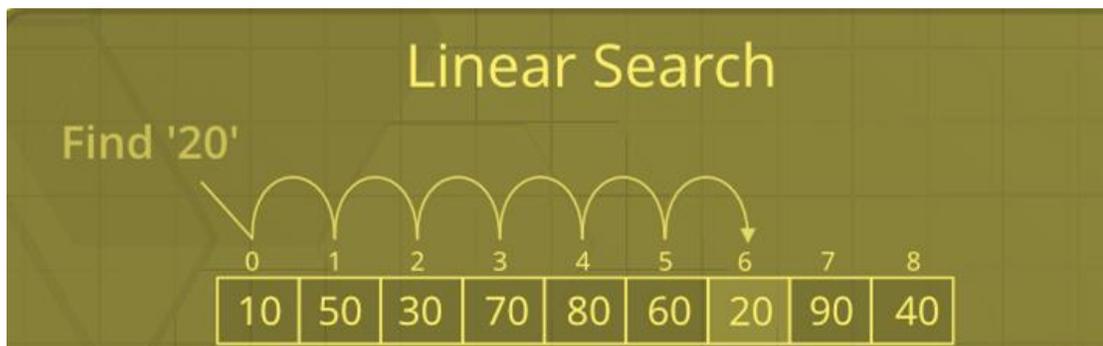
Searching Algorithms are designed to check for an element or retrieve an element from any data structure where it is stored. Searching is one of the most common actions performed in regular business applications. This involves fetching some data stored in data structures like Arrays.

Linear Search:

Linear or Sequential Search is the simplest of search algorithms. It is used to search a key element from multiple elements. It involves sequential searching for an element in the given data structure until either the element is found or the end of the data structure is reached.

Algorithm:

- Step 1: Traverse the array
- Step 2: Match the key element with array element
- Step 3: If key element is found, return the index position of the array element
- Step 4: If key element is not found, return -1



Example Program:

```
class Example
{
public static int linearSearch(int[] arr, int key){
    for(int i=0;i<arr.length;i++)
    {
        if(arr[i] == key)
        {
            return i;
        }
    }
    return -1;
}

public static void main()
{
    int[] a1= {20,30,40,70,90};
    int key = 40;
    System.out.println(key+" is found at index: "+linearSearch(a1, key));

}
}
```

Output:

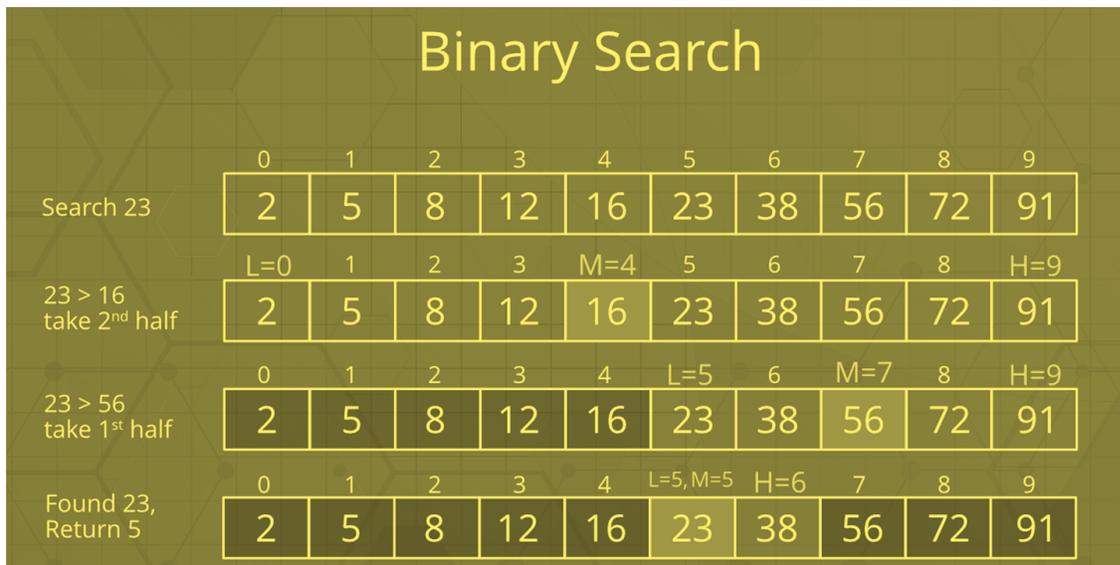
50 is found at index: 2

Binary Search:

Binary search is used to search a key element from multiple elements. It is faster than linear search. In case of binary search, search a sorted array by repeatedly dividing the search interval in half. Begin with an interval covering

the whole array. If the value of the search key is less than the item in the middle of the interval, narrow the interval to the lower half. Otherwise narrow it to the upper half. Repeatedly check until the value is found or the interval is empty.

Example:



We basically ignore half of the elements just after one comparison.

1. Compare x with the middle element.
2. If x matches with middle element, we return the mid index.
3. Else If x is greater than the mid element, then x can only lie in right half subarray after the mid element. So we check for right half.
4. Else (x is smaller) keep checking for the left half.

Example Program:

```
class Example2
{
public static void binarySearch(int arr[], int first, int last, int key)
{
```

```
int mid = (first + last)/2;
while( first <= last )
{
    if ( arr[mid] < key )
    {
        first = mid + 1;
    }
    else if ( arr[mid] == key )
    {
        System.out.println("Element is found at index: " + mid);
        break;
    }
    else
    {
        last = mid - 1;
    }
    mid = (first + last)/2;
}
if ( first > last )
{
    System.out.println("Element is not found!");
}
}
public static void main(String args[])
{
    int arr[] = {10,20,30,40,50};
    int key = 30;
```

```
int last=arr.length-1;
    binarySearch(arr,0,last,key);
}
}
```

Output:

Element is found at index: 2

ASSIGNMENT VI (PART – 2)

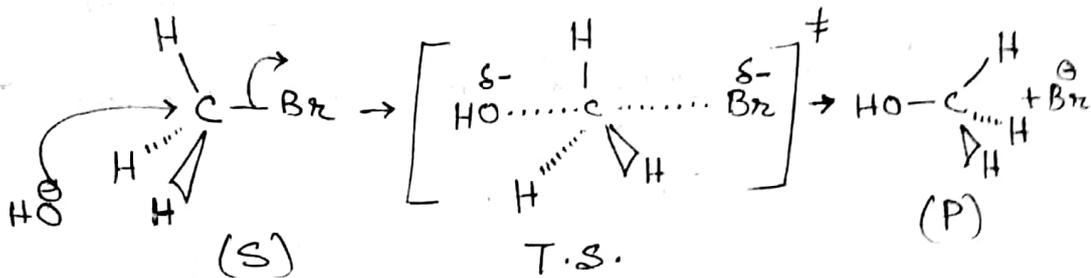
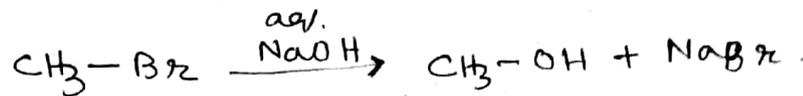
4. Explain binary search.
5. Write the linear search algorithm.

Aashish ka ek din

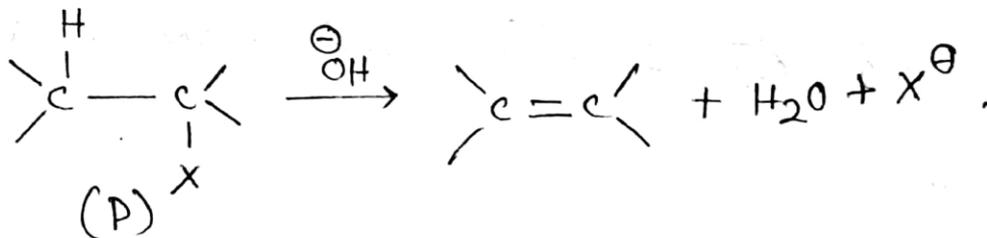
Q) 'विलोम' शब्द का अर्थ बताते हुए स्पष्ट कीजिए कि उसकी इस नाटक में क्या भूमिका है ?

उत्तर - विलोम शब्द का अर्थ है विपरीत या उल्टा अर्थ वाला। आषाढ़ का एक दिन नाटक में विलोम एक ऐसा पात्र है जैसा कि उसके नाम से ही प्रतीत होता है, वह जीवन में निषेधात्मक पहलू का प्रतीक है। विलोम इस नाटक का खलनायक पात्र है, किन्तु वह परम्परागत खलनायक अपना भिन्न व्यक्तित्व रखता है मल्लिका विलोम और कालिदास के बीच के केंद्र बिंदु है यह पात्र इस नाटक में कालिदास से भी अधिक प्रभावी पात्र है। विलोम नामक इस पात्र के बिना यह नाटक केवल भावुक और कमजोर बनकर रह जाता। कालिदास और विलोम एक दूसरे के विपरीत हैं। मल्लिका के सामने ही दोनों एक दूसरे से टकराते हैं, एक दूसरे पर व्यंग्य बाण छोड़ते हैं लेकिन खलनायक होते हुए भी विलोम की भूमिका नाटक को कोई मोड़ नहीं देती। विलोम धूर्त नहीं बल्कि स्पष्ट वक्ता है किंतु उसकी स्पष्ट वादीता में कालिदास के प्रति द्वेष झलकता है किंतु फिर भी विलोम का द्वेष भाव कालिदास के प्रति प्रतिशोध में नहीं बदला। जो कालिदास हमेशा विलोम की उपेक्षा और अनादर की दृष्टि से देखता था उसके स्वयं ने पराजित हो जाने पर भी विलोम उसका अनादर नहीं करता उल्टे कालिदास उसे उसके ही घर से चले जाने को कहता है।

विलोम विभिन्न परिस्थितियों का मधुर एवं अनुभव रखता है वह जानता है कि राजधानी में जाकर सत्ता के लोभ में व्यक्ति का व्यक्तित्व बदल जाता है क्योंकि वहां के जीवन में कई तरह के आकर्षण हैं रंगशालायें, मदिरालय, विलास की वस्तुएं उज्जैनी की भूमि से परिचित था इसलिए कालिदास के उज्जैन जाने के पश्चात वह मल्लिका को बार-बार भावी विपत्ति से सावधान करता था। लेकिन विलोम की बातों पर ध्यान ना देकर मल्लिका विपत्तियों के दलदल में फंस जाती है। मल्लिका और विलोम का वैवाहिक जीवन भी सफल नहीं हो पाता है। दैहिक स्तर पर तो वह मल्लिका को प्राप्त करने में सफल हो जाता है लेकिन मन से कभी भी मल्लिका उसे प्राप्त नहीं हो पाती। वह मल्लिका के साथ घर जरूर बसा लेता है, पर जब देखो दरवाजा बंद। मल्लिका विलोम की बच्ची की मां बन जाती है किंतु मल्लिका के भाव कोष्ठ में सदैव कालिदास विद्यमान रहता है। विलोम इसी विडंबनापूर्ण स्थिति को झेलता रहता है एक सीमा में कालिदास के जीवन में संभावनाओं के बीच शेष हैं लेकिन विलोम अपना आक्रामकता एवं यथार्थवादी दृष्टिकोण के बावजूद टूट चुका है। इस प्रकार विलोम विसंगतियों के दलदल में फसा निर्वासित सा जीवन व्यतीत करता है। उसका नाम विलोम भी जीवन के इसी निषेधात्मक पहलू का प्रतीक बन कर आया है। आधुनिक मानव की नियति को व्यक्त करने वाला सशक्त पात्र है।

CHEMISTRY - XII**Haloalkanes-Haloarenes**S_N² :-

For chiral substrate, S_N¹ reaction produces racemic mixture & in S_N² reaction, inversion of configuration is obtained.

Elimination Reaction :-

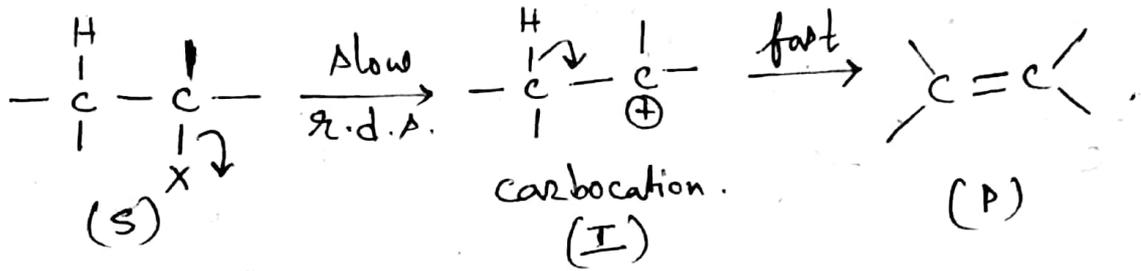
$$\text{Rate} = k[\text{P}] \rightarrow \text{Molecularity} = 1.$$

or, (E₁)

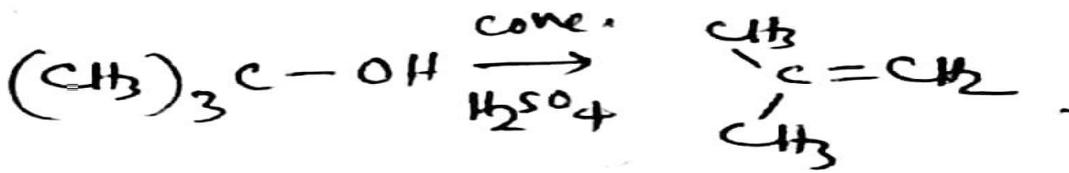
$$\text{Rate} = k[\text{P}][\text{OH}^-] \rightarrow \text{Molecularity} = 2.$$

(E₂) or (E₁cB)

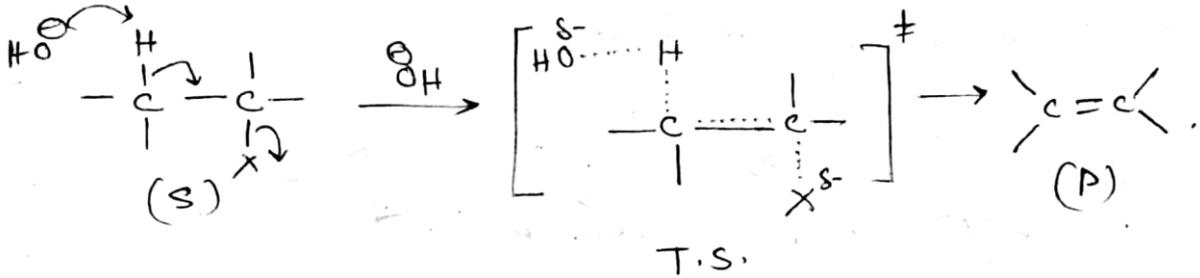
E₁ :-



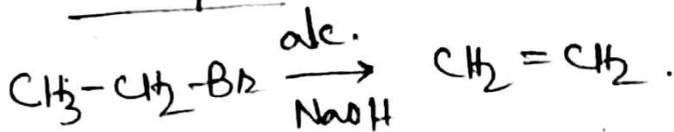
Example :-



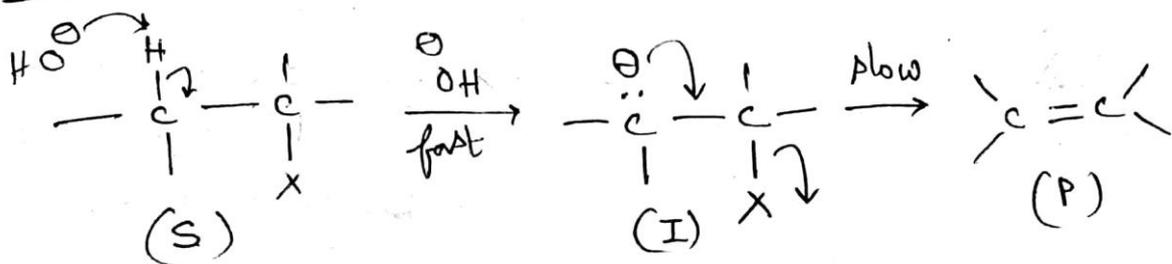
E₂ :-



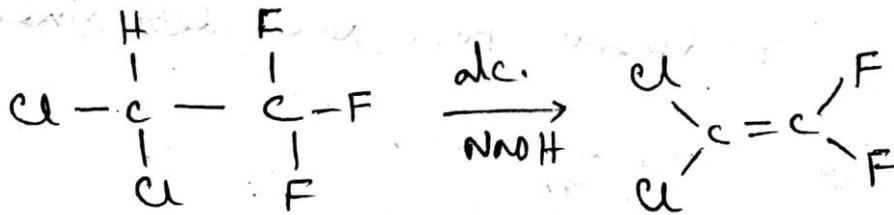
Example :-



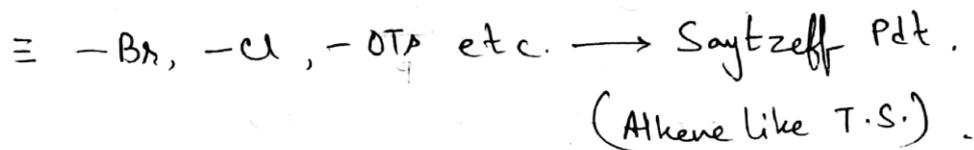
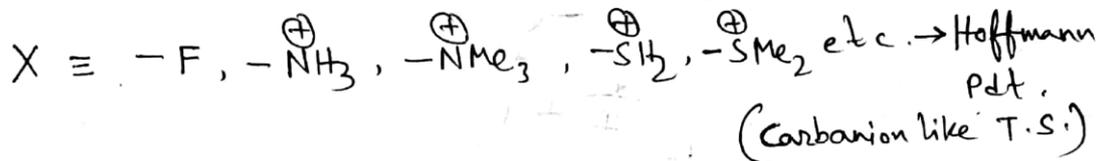
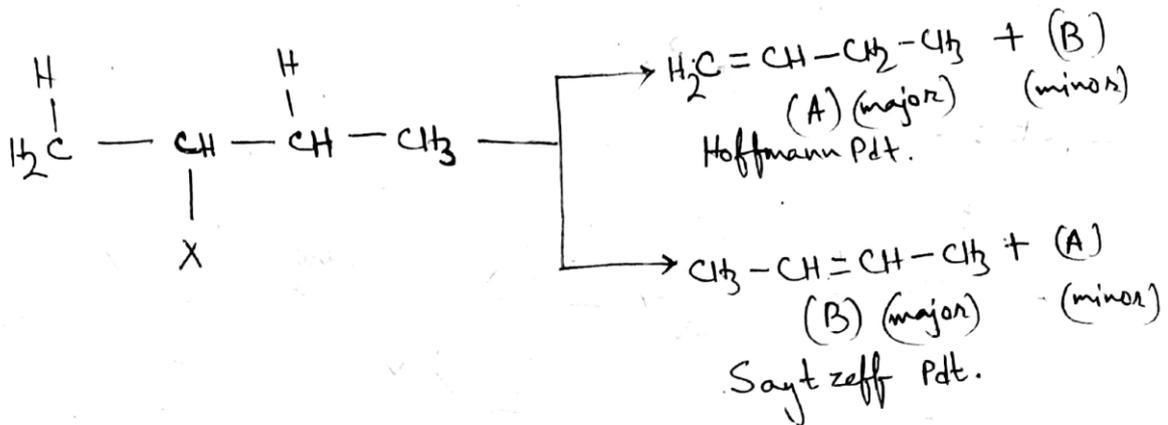
E_{1cB} :-



Example :-



For E_2 reaction antiperiplanarity is the most important condition.



DREAMLAND SCHOOL
CLASS XII
ASSIGNMENT 12
ENGLISH LANGUAGE

Date- 12th MAY 2020

Q1. As a member of the school Cultural Club, write a proposal to your Principal regarding an online presentation to celebrate Rabindra Jayanti.

Q2. Fill in each blank with a suitable word:

1. The horse broke _____ from the stable.
2. His health broke _____ last summer.
3. I want a trainer to break ____ my pony.
4. The burglars broke _____ the shop.
5. John Bright broke _____ in the middle of his speech.
6. The Nehru children were well brought _____.
7. His dishonesty brought _____ his ruin.
8. His books bring _____ but a small income.
9. Intemperance in diet brings ____ many ailments.
10. The matter was brought ____ in the Council.
11. Keats was cut _____ in the prime of life.
12. After the rains the roof fell _____.
13. For want of support his scheme fell _____.
14. He called _____ a doctor at once.
15. I cannot call ____ past events.
16. The prize distribution comes _____ next week.
17. He is drawing _____ the agreement.
18. The button of my coat has come _____.
19. I shall gladly carry _____ your instructions.
20. How much does it come _____?
21. While he was speaking, Rahul kept cutting _____.
22. Keep ____ your spirits.
23. The gun went _____ all of a sudden.
24. How long will our food supplies hold _____?
25. Lay _____ something for future use.
