FINANCIAL MARKETS MANAGEMENT

UNIT-2

Primary and Secondary Markets

JOURNAL

BY: MOHD. ANAS

JOURAL

- Journal is a book of primary or original entry in which transactions are first recorded in a chronological order.(Date-wise)

JOURNAL

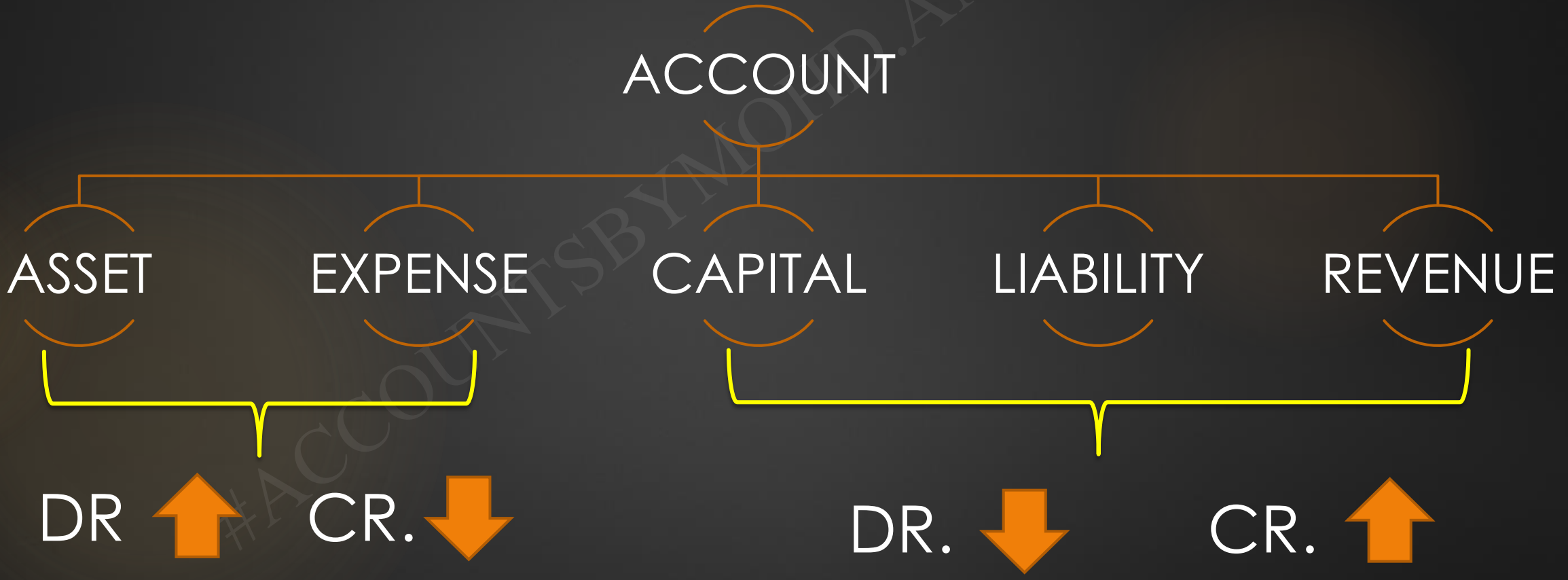
DATE	PARTICULARS	L.F	Dr. (Rs.)	Cr. (Rs.)
Date of the transaction	Name of the Accounts	Led ger Folio	Amount of transaction	Date of the transaction

CLASSIFICATION OF ACCOUNT

MODERN CLASSIFICAION

TRADITIONAL CLASSIFICATION

MODERN CLASSIFICATION OF ACCOUNT



ASSET	EXPENSES (LOSSES)	LIABILITY	CAPITAL	REVENUE (INCOME & GAINS)
Cash Stock Land & Building Plant Machinery Furniture Vehicle Bill Receivable Goodwill Prepaid Expense Accrued income	Rent Wages Salaries Electricity Insurance Premium Carriage/Freight Loss by fire Interest on capital Interest paid Commission paid **Purchases (goods)**	Loan Bank overdraft Creditors Bill payable Outstanding Exp Advance income	Capital Drawings	Commission received Interest received Insurance claim received **Sale (goods)**

QUESTION 1:

	Transactions
1	Anuj started business with cash Rs. 1,00,000
2	Deposited cash into bank Rs. 50,000 for opening a bank account
3	Purchased goods for cash Rs. 10,000
4	Purchased goods from Shyam Rs. 5,000
5	Purchased furniture Rs. 20,000
6	Sold goods for Rs. 3,000
7	Sold goods to Suresh for Rs. 4,000.
8	Sold furniture for Rs. 10,000
9	Paid rent by cheque Rs. 6,000
10.	Paid salary to staff Rs. 15,000.

SOLUTION: ANUJ'S JOURNAL

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
1	Cash A/c	Dr.		1,00,000	
	To capital A/c				1,00,000
	(Started business with cash)				
2	Bank A/c	Dr.		50,000	
	To Cash A/c				50,000
	(Deposited cash into bank)				
3	Purchases A/c	Dr.		10,000	
	To Cash A/c				10,000
	(Goods purchased for cash)				
4	Purchases A/c	Dr.		5,000	
	To Shyam				5,000
	(Goods purchased from Shyam)				

QUESTION 1:

	Transactions
1	Anuj started business with cash Rs. 1,00,000
2	Deposited cash into bank Rs. 50,000 for opening a bank account
3	Purchased goods for cash Rs. 10,000
4	Purchased goods from Shyam Rs. 5,000
5	Purchased furniture Rs. 20,000
6	Sold goods for Rs. 3,000
7	Sold goods to Suresh for Rs. 4,000.
8	Sold furniture for Rs. 10,000
9	Paid rent by cheque Rs. 6,000
10.	Paid salary to staff Rs. 15,000.

SOLUTION:

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
5	Furniture A/c	Dr.		20,000	
	To Cash A/c				20,000
	(Furniture purchased for cash)				
6	Cash A/c	Dr.		3,000	
	To Sales A/c				3,000
	(Sold goods for cash)				
7	Suresh	Dr.		4,000	
	To Sales A/c				4,000
	(Sold goods to Suresh)				
8	Cash A/c	Dr.		10,000	
	To Furniture A/c				10,000
	(Sold furniture)				

QUESTION 1:

	Transactions
1	Anuj started business with cash Rs. 1,00,000
2	Deposited cash into bank Rs. 50,000 for opening a bank account
3	Purchased goods for cash Rs. 10,000
4	Purchased goods from Shyam Rs. 5,000
5	Purchased furniture Rs. 20,000
6	Sold goods for Rs. 3,000
7	Sold goods to Suresh for Rs. 4,000.
8	Sold furniture for Rs. 10,000
9	Paid rent by cheque Rs. 6,000
10.	Paid salary to staff Rs. 15,000.

SOLUTION:

DATE	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
9	Rent A/c	Dr.		6,000	
	To Bank A/c				6,000
	(Rent paid)				
10	Salary A/c	Dr.		15,000	
	To Cash A/c				15,000
	(Salary paid)				

QUESTION 2:

	Transactions
1	Wages paid Rs. 10,000
2	Received commission Rs. 5,000
3	Received interest Rs. 10,000
4	Cartage paid Rs. 4,000
5	Wages paid for the installation of a machine Rs. 10,000
6	Withdrawn cash for personal use Rs. 15,000
7	Withdrawn cash from bank for office use Rs. 20,000
8.	Paid rent for residential building Rs. 15,000
9.	Paid wages of Rs. 5,000 for installation of air conditioner at proprietor's residence

SOLUTION:

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
1	Wages A/c	Dr.		10,000	
	To Cash A/c				10,000
	(Wages paid)				
2	Cash A/c	Dr.		5,000	
	To Commission A/c				5,000
	(Received commission)				
3	Cash A/c	Dr.		10,000	
	To Interest A/c				10,000
	(Received interest)				
4	Cartage A/c	Dr.		4,000	
	To Cash A/c				4,000
	(Cartage paid)				

QUESTION:

	Transactions
1	Wages paid Rs. 10,000
2	Received commission Rs. 5,000
3	Received interest Rs. 10,000
4	Cartage paid Rs. 4,000
5	Wages paid for the installation of a machine Rs. 10,000
6	Withdrawn cash for personal use Rs. 15,000
7	Withdrawn cash for office use Rs. 20,000
8.	Paid rent for residential building Rs. 15,000
9.	Paid wages of Rs. 5,000 for installation of air conditioner at proprietor's residence

SOLUTION:

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
5	Machine A/c	Dr.		10,000	
	To Cash A/c				10,000
	(Wages paid for the installation of machine)				
6	Drawings A/c	Dr.		5,000	
	To Cash A/c				5,000
	(Cash withdrawn for personal use)				
7	Cash A/c	Dr.		20,000	
	To Bank A/c				20,000
	(Withdrawn cash from bank for office use)				

QUESTION:

	Transactions
1	Wages paid Rs. 10,000
2	Received commission Rs. 5,000
3	Received interest Rs. 10,000
4	Cartage paid Rs. 4,000
5	Wages paid for the installation of a machine Rs. 10,000
6	Withdrawn cash for personal use Rs. 15,000
7	Withdrawn cash for office use Rs. 20,000
8.	Paid rent for residential building Rs. 15,000
9.	Paid wages of Rs. 5,000 for installation of air conditioner at proprietor's residence

SOLUTION:

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
8	Drawings A/c	Dr.		15,000	
	To Cash A/c				15,000
	(Rent paid for residential building)				
9	Drawings A/c	Dr.		5,000	
	To Cash A/c				5,000
	(Paid wages for installation of air conditioner at proprietor's residence)				

TRADE DISCOUNT

- It is a discount allowed for purchasing goods in large quantity.
- It is allowed as deduction from sale value (list price)
- It is not recorded in books.

CASH DISCOUNT

- It is a discount allowed for timely payment.
- This discount is allowed by seller to the purchaser when the purchaser makes payment either promptly or before due date.
- It is recorded in books.
- It is generally allowed as percent of the amount received.
- If both cash and trade discount are allowed, first trade discount is allowed, thereafter cash discount is allowed.

QUESTION 3:

	Transactions
Apr 1	Purchased goods of Rs. 5,000 @ 10% trade discount.
2	Purchased goods of Rs. 10,000 @ 10% cash discount.
3	Purchased goods of Rs. 20,000 at 10% discount.
4	Purchased goods list price Rs. 10,000 @ 10% trade discount and 5% cash discount.
5	Purchased goods from Vijay of Rs. 40,000 @ 10% trade discount and 5% cash discount. Half of the amount is paid at the time of purchase
6	Purchased goods from Anil for Rs. 20,000, @ 10% trade discount and 10% cash discount. Paid half the amount by cheque within specified time.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 1	Purchases A/c	Dr.		4,500	
	To Cash A/c				4,500
	(Purchased goods @ 10% trade discount)				
Apr 2	Purchases A/c	Dr.		10,000	
	To Cash A/c				9,000
	To Discount Received A/c				1,000
	(Purchased goods @ 10% cash discount.)				
Apr 3	Purchases A/c	Dr.		20,000	
	To Cash A/c				18,000
	To Discount Received A/c				2,000
	(Purchased goods @ 10% cash discount.)				

QUESTION 3:

	Transactions
Apr 1	Purchased goods of Rs. 5,000 @ 10% trade discount.
2	Purchased goods of Rs. 10,000 @ 10% cash discount.
3	Purchased goods of Rs. 20,000 at 10% discount.
4	Purchased goods list price Rs. 10,000 @ 10% trade discount and 5% cash discount.
5	Purchased goods from Vijay of Rs. 40,000 @ 10% trade discount and 5% cash discount. Half of the amount is paid at the time of purchase
6	Purchased goods from Anil for Rs. 50,000, @ 10% trade discount and 5% cash discount. Paid half the amount by cheque within specified time.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 4	Purchases A/c	Dr.		9,000	
	To Cash A/c				8,550
	To Discount Received A/c				450
	(Purchased goods @ 10% trade discount & 5% cash discount)				
Apr 5	Purchases A/c	Dr.		36,000	
	To Vijay				18,000
	To Cash A/c				17,100
	To Discount Received A/c				900
	(Purchased goods @ 10% cash discount.)				
Apr 6	Purchases A/c	Dr.		45,000	
	To Anil				22,500
	To Bank A/c				21,375
	To Discount Received A/c				1,125
	(Purchased goods @ 10% cash discount.)				

QUESTION 4:

	Transactions
Apr 1	Sold goods of Rs. 10,000 @ 10% trade discount.
2	Sold goods of Rs. 20,000 @ 10% cash discount.
3	Sold goods list price Rs. 10,000 @ 10% trade discount and 5% cash discount.
4	Sold goods costing Rs. 50,000 @ 20% profit, 10% trade discount and 10% cash discount. Amount received at the time of sale.
5	Sold goods to Ajay of Rs. 80,000 @ 10% trade discount and 5% cash discount. Half of the amount is received at the time of sale.
6	Sold goods to Sunil for Rs. 1,00,000, @ 10% trade discount and 5% cash discount. Received half the amount by cheque within specified time.

SOLUTION: JOURNAL

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 1	Cash A/c	Dr.		9,000	
	To Sales A/c				9,000
	(Sold goods @ 10% trade discount)				
Apr 2	Cash A/c	Dr.		8,000	
	Discount Allowed A/c	Dr.		2,000	
	To Sales A/c				20,000
	(Sold goods @ 10% cash discount.)				
Apr 3	Cash A/c	Dr.		8,550	
	Discount Allowed A/c	Dr.		450	
	To Sales A/c				9,000
	(Sold goods list price Rs. 10,000 @ 10% trade discount and 5% cash discount.)				

QUESTION 4:

	Transactions
Apr 1	Sold goods of Rs. 10,000 @ 10% trade discount.
2	Sold goods of Rs. 20,000 @ 10% cash discount.
3	Sold goods list price Rs. 10,000 @ 10% trade discount and 5% cash discount.
4	Sold goods costing Rs. 50,000 @ 20% profit, 10% trade discount and 10% cash discount. Amount received at the time of sale.
5	Sold goods to Ajay of Rs. 80,000 @ 10% trade discount and 5% cash discount. Half of the amount is received at the time of sale.
6	Sold goods to Sunil for Rs. 1,00,000, @ 10% trade discount and 5% cash discount. Received half the amount by cheque within specified time.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 4	Cash A/c	Dr.		48,600	
	Discount Allowed A/c	Dr.		5,400	
	To Sales A/c				54,000
	(Sold goods costing Rs. 50,000 @ 20% profit, 10% trade discount and 10% cash discount)				
Apr 5	Ajay	Dr.		36,000	
	Cash A/c	Dr.		34,200	
	Discount Allowed A/c	Dr.		1,800	
	To Sales A/c				72,000
	(Sold goods to Ajay of Rs. 80,000 @ 10% trade discount and 5% cash discount)				
Apr 6	Sunil	Dr.		45,000	
	Bank A/c			42,750	
	Discount Allowed A/c			2,250	
	To Sales A/c				90,000
	(Sold goods to Sunil for Rs. 1,00,000,				

QUESTION 5:

	Transactions
Apr 1	Purchased goods of Rs. 50,000 from Suraj.
2	Goods of Rs. 20,000 returned to Suraj.
3	Paid Rs. 25,000 to Suraj in full settlement.
4	Sold goods of Rs. 10,000 to Shyam
5	Goods of Rs. 3,000 returned by Shyam
6	Received from Shyam in full settlement and allowed him discount of Rs. 1,000.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 1	Purchases A/c	Dr.		50,000	
	To Suraj				50,000
	(Goods purchased from Suraj)				
Apr 2	Suraj	Dr.		20,000	
	To Purchases Return A/c				20,000
	(Goods returned by Suraj)				
Apr 3	Suraj	Dr.		30,000	
	To Cash A/c				25,000
	To Discount Received A/c				5,000
	(Paid Rs. 25,000 to Suraj in full settlement)				

QUESTION 5:

	Transactions
Apr 1	Purchased goods of Rs. 50,000 from Suraj.
2	Goods of Rs. 20,000 returned by Suraj.
3	Paid Rs. 25,000 to Suraj in full settlement.
4	Sold goods of Rs. 10,000 to Shyam
5	Goods of Rs. 3,000 returned to Shyam
6	Received from Shyam in full settlement and allowed him discount of Rs. 1,000.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 4	Shyam	Dr.		10,000	
	To Sales A/c				10,000
	(Goods sold to Shyam)				
Apr 5	Sales Return A/c	Dr.		3,000	
	To Shyam				3,000
	(Goods returned to Shyam)				
Apr 6	Cash A/c	Dr.		6,000	
	Discount Allowed A/c	Dr.		1,000	
	To Shyam				7,000
	(Received from Shyam in full settlement)				

QUESTION 6:

	Transactions
Apr 1	Salary paid Rs. 50,000
2	Salary due but not paid Rs. 10,000
3	Wages paid Rs. 5,000 and outstanding wages Rs. 1,000
4	Paid Rent Rs. 20,000, out of which 1/4th is prepaid.
5	Prepaid Insurance premium Rs. 2,000.
6	Received commission Rs. 15,000
7	Accrued commission Rs. 5,000
8	Received interest Rs. 12,000, out of which 1/3rd is advance.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 1	Salaries A/c	Dr.		50,000	
	To cash A/c				50,000
	(Salary paid)				
Apr 2	Salaries A/c	Dr.		10,000	
	To Outstanding Salaries A/c				10,000
	(Salary due but not paid)				
Apr 3	Wages A/c	Dr.		6,000	
	To Cash A/c				5,000
	To Outstanding Wages A/c				1,000
	(Wages paid Rs. 5,000 and outstanding wages Rs. 1,000)				
Apr 4	Rent A/c	Dr.		15,000	
	Prepaid Rent A/c	Dr.		5,000	
	To Cash A/c				20,000
	(Paid Rent Rs. 20,000, out of which 1/4th is prepaid.)				

QUESTION 6:

	Transactions
Apr 1	Salary paid Rs. 50,000
2	Salary due but not paid Rs. 10,000
3	Wages paid Rs. 5,000 and outstanding wages Rs. 1,000
4	Paid Rent Rs. 20,000, out of which 1/4th is prepaid.
5	Received commission Rs. 15,000
6	Accrued commission Rs. 5,000
7	Received interest Rs. 12,000, out of which 1/3rd is advance.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 5	Cash A/c	Dr.		15,000	
	To Commission A/c				15,000
	(Received commission)				
Apr 6	Accrued Commission A/c	Dr.		5,000	
	To Commission A/c				5,000
	(Commission Accrued)				
Apr 7	Cash A/c	Dr.		12,000	
	To Interest A/c				8,000
	To Interest Received in Advance A/c				4,000
	(Received interest Rs. 12,000, out of which 1/3rd is advance.)				

QUESTION 7:

	Transactions
Apr 1	Received Rs. 5,000 from Ramesh on account.
2	Received a cheque of Rs. 10,000 from Suresh and deposited in bank on the same day.
3	Received a cheque of Rs. 20,000 from Sahil
4	Received from Rahil Rs. 4,000 in full settlement of his account of Rs. 5,000.
5	Suresh's cheque returned dishonoured.
6	Suresh became insolvent and only 60 paise in the rupee could be recovered from his official estate.
7	Sahil's cheque deposited into bank.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 1	Cash A/c	Dr.		5,000	
	To Ramesh				5,000
	(Received cash from Ramesh)				
Apr 2	Bank A/c	Dr.		10,000	
	To Suresh				10,000
	(Received a cheque of Rs. 10,000 from Suresh and deposited in bank)				
Apr 3	Cheque in hand A/c	Dr.		20,000	
	To Sahil				20,000
	(Received a cheque from Sahil)				
Apr 4	Cash A/c	Dr.		4,000	
	Discount Allowed A/c	Dr.		1,000	
	To Rahil				5,000
	(Received from Rahil Rs. 4,000 in full settlement of his account of Rs. 5,000.)				

QUESTION 7:

	Transactions
Apr 1	Received Rs. 5,000 from Ramesh on account.
2	Received a cheque of Rs. 10,000 from Suresh and deposited in bank on the same day.
3	Received a cheque of Rs. 20,000 from Sahil
4	Received from Rahil Rs. 4,000 in full settlement of his account of Rs. 5,000.
5	Suresh's cheque returned dishonoured.
6	Suresh became insolvent and only 60 paise in the rupee could be recovered from his official estate.
7	Sahil's cheque deposited into bank.

SOLUTION:

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
Apr 5	Suresh	Dr.		10,000	
	To Bank A/c				10,000
	(Suresh's cheque returned dishonoured)				
Apr 6	Cash A/c	Dr.		6,000	
	Bad Debts A/c	Dr.		4,000	
	To Suresh				10,000
	(Suresh became insolvent and only 60 paise in the rupee could be recovered)				
Apr 7	Sahil	Dr.		20,000	
	To Cheque in hand A/c				20,000
	(Sahil's cheque deposited into bank)				

QUESTION 8:

S.no	Transactions
1	Rs. 8,000 due from Ramesh is not recoverable
2	Mohan is declared insolvent. Received first and final dividend from his official receiver 60 paise in a rupee against a debt of Rs. 5,000.
3	Shyam who owed Rs. 15,000 became insolvent and 50% is received from his estate.
4	Received Rs. 10,000 in cash from Sohan for bad debts written off last year.
5	Bad debts recovered Rs. 8,000.
6	Bad debts written off Rs. 5,000.
7	Rahul, from whom Rs. 20,000 were receivable, became insolvent and nothing could be received from him.

SOLUTION:

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
1	Bad debts A/c	Dr.		8,000	
	To Ramesh				8,000
	(Rs. 8,000 due from Ramesh is not recoverable)				
2	Cash A/c	Dr.		3,000	
	Bad Debts A/c	Dr.		2,000	
	To Mohan				5,000
	(Received from Mohan 60 p in the rupee on his insolvency)				
3	Cash A/c	Dr.		7,500	
	Bad Debts A/c	Dr.		2,500	
	To Shyam				10,000
	(Received from Mohan 60 p in the rupee on his insolvency)				

QUESTION 8:

S.no	Transactions
1	Rs. 8,000 due from Ramesh is not recoverable
2	Mohan is declared insolvent. Received first and final dividend from his official receiver 60 paise in a rupee against a debt of Rs. 5,000.
3	Shyam who owed Rs. 15,000 became insolvent and 50% is received from his estate.
4	Received Rs. 10,000 in cash from Sohan for bad debts written off last year.
5	Bad debts recovered Rs. 8,000.
6	Rahul, from whom Rs. 20,000 were receivable, became insolvent and nothing could be received from him.

SOLUTION:

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
4	Cash A/c	Dr.		10,000	
	To Bad debts Recovered A/c				10,000
	(Bad debts written off last year, now recovered)				
5	Cash A/c	Dr.		8,000	
	To Bad debts Recovered A/c				8,000
	(Bad debts which were written off, now recovered)				
6	Bad Debts A/c	Dr.		20,000	
	To Rahul				20,000
	(Rahul became insolvent and nothing could be recovered from him.)				

QUESTION 9:

S.no	Transactions
1	Cash withdrawn by owner for personal use Rs. 1,000
2	Goods withdrawn by owner for personal use Rs. 5,000
3	Goods distributed as free samples Rs. 500
4	Goods given as charity Rs. 1,000
5	Timber (goods) used for making office furniture Rs. 5,000
6	Goods destroyed by fire Rs. 3,000. Goods were uninsured
7	Goods lost by fire Rs. 5,000. Goods were insured and claim lodged with insurance co.
8.	Goods lost by fire Rs. 10,000. Insurance company accepted the claim for Rs. 8,000

SOLUTION: JOURNAL

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
1	Drawings A/c	Dr.		1,000	
	To Cash A/c				1,000
	(Cash withdrawn by owner for personal use)				
2	Drawings A/c	Dr.		5,000	
	To Purchases A/c				5,000
	(Goods withdrawn by owner for personal use)				
3	Free Samples A/c	Dr.		500	
	To Purchases A/c				
	(Goods distributed as free samples)				

QUESTION 9:

S.no	Transactions
1	Cash withdrawn by owner for personal use Rs. 1,000
2	Goods withdrawn by owner for personal use Rs. 5,000
3	Goods distributed as free samples Rs. 500
4	Goods given as charity Rs. 1,000
5	Timber (goods) used for making office furniture Rs. 5,000
6	Goods destroyed by fire Rs. 3,000. Goods were uninsured
7	Goods lost by Theft Rs. 5,000. Goods were insured and claim lodged with insurance co.
8.	Goods lost by fire Rs. 10,000. Insurance company accepted the claim for Rs. 8,000

SOLUTION: JOURNAL

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
4	Charity A/c	Dr.		1,000	
	To Purchases A/c				1,000
	(Goods given as charity)				
5	Furniture A/c	Dr.		5,000	
	To Purchases A/c				5,000
	(Goods used to make office furniture)				
6	Loss by Fire A/c	Dr.		3,000	
	To Purchases A/c				3,000
	(Being goods destroyed by fire)				

QUESTION 9:

S.no	Transactions
1	Cash withdrawn by owner for personal use Rs. 1,000
2	Goods withdrawn by owner for personal use Rs. 5,000
3	Goods distributed as free samples Rs. 500
4	Goods given as charity Rs. 1,000
5	Timber (goods) used for making office furniture Rs. 5,000
6	Goods destroyed by fire Rs. 3,000. Goods were uninsured
7	Goods lost by Theft Rs. 5,000. Goods were insured and claim lodged with insurance co.
8.	Goods lost by fire Rs. 10,000. Insurance company accepted the claim for Rs. 8,000

SOLUTION: JOURNAL

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
7	Loss by Theft A/c	Dr.		5,000	
	To Purchases A/c				5,000
	(Goods lost by theft)				
	Insurance co. A/c	Dr.		5,000	
	To Loss by theft A/c				5,000
	(Insurance claim lodged)				

QUESTION 9:

S.no	Transactions
1	Cash withdrawn by owner for personal use Rs. 1,000
2	Goods withdrawn by owner for personal use Rs. 5,000
3	Goods distributed as free samples Rs. 500
4	Goods given as charity Rs. 1,000
5	Timber (goods) used for making office furniture Rs. 5,000
6	Goods destroyed by fire Rs. 3,000. Goods were uninsured
7	Goods lost by Theft Rs. 5,000. Goods were insured and claim lodged with insurance co.
8.	Goods lost by fire Rs. 10,000. Insurance company accepted the claim for Rs. 8,000

SOLUTION: JOURNAL

S.no	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
8	Loss by Theft A/c	Dr.		10,000	
	To Purchases A/c				10,000
	(Goods lost by theft)				
	Insurance co. A/c	Dr.		10,000	
	To Loss by theft A/c				10,000
	(Insurance claim lodged)				
	Bank A/c	Dr.		8,000	
	Loss by theft A/c	Dr.		2,000	
	To Insurance Co. A/c				10,000
	(Insurance claim received Rs. 8,000)				

OPENING ENTRY: The first entry in Journal is passed to record the closing balances of the previous year. This entry is called Opening Entry.

Q11.

On 1st April, 2020 the position of Bhargava Bros.. Delhi was as follows:

Cash in hand Rs. 6,000; Cash at Bank Rs. 25,600; Stock of goods Rs. 9,000; Machinery Rs. 45,000; Furniture Rs. 18,000; Abdul Rs. 20,500(Debtor); Neeraj Rs. 26,000 (Debtor); loan Rs.50,000; Amit Rs. 6,700 (Creditor)

Date	PARTICULARS		L.F.	Dr. (Rs)	Cr. (Rs.)
2020					
Apr 1	Cash in hand A/c	Dr.		6,000	
	Cash at Bank A/c	Dr.		25,600	
	Stock A/c	Dr.		9,000	
	Machinery A/c	Dr.		45,000	
	Furniture A/c	Dr.		18,000	
	Abdul	Dr.		20,500	
	Neeraj	Dr.		26,000	
	To Loan A/c				50,000
	To Amit				6,700
	To Capital A/c				93,400
	(opening entry passed)				

East Point School

Study Notes

SUBJECT : ECONOMICS

Class: - XII (2021-22)

Date: 12/08/2021

Statistics for Economics

Introduction

Economics is the study of how people and society choose to employ scarce resources that could have alternative uses in order to produce various commodities that satisfy their wants.

Types of activities: Economic activities and Non-economic activities

Economic activities refer to those activities which are undertaken to earn a living or for monetary gain. There are three main economic activities:

- **Consumption**: It is an economic activity that deals with the use of goods and services for the satisfaction of human wants.
- **Production**: It refers to all activities which are undertaken to produce goods and services for the market or for generation of income.
- **Distribution**: It is that economic activity which studies how national income is distributed among the factors of production namely land, labour, capital and entrepreneurship.

Non-economic activities are those activities which are not concerned with the creation of money or wealth.

Important Terms:

- **Consumer**: is one who avails or consumes goods and services for the satisfaction of his wants.
- **Producer**: is one who produces goods and services for the generation of income.
- **Service holder**: is a person who works for some other person and gets paid in return in the form of wages or salary. For example: a teacher employed in a school.
- **Service Provider**: is a person who provides some kind of service to the other for a payment. For example: Lawyer, Doctor etc.

Meaning of Statistics: Statistics can be defined in two ways:

A. Statistics in Singular Sense (methods of statistical enquiry)

In the singular sense, statistics refers to the collection, organization, presentation, analysis and interpretation of numerical data. (COPAI)

i. **Collection of data :** It is the first step in a statistical enquiry. The technique of collection of data depends on the purpose of study. Data can be collected using primary or secondary data collection methods.

ii. **Organization of data:** After collection of raw data, the data is organized or classified in a proper manner on the basis of construction such as discrete, individual or continuous series or on the basis of characteristics like time series.

iii. **Presentation of data:** Data, once organized, is presented in some suitable manner such as tabular, graphical, diagrammatic or textual form.

iv. **Analysis of data:** Analysis is done with the help of mathematical techniques such as measures of central tendency, dispersion, correlation etc.

v. **Interpretation of data:** It is the last step in statistical methodology. It involves interpretation of the final statistical results from analysis and drawing conclusions from the enquiry.

B. *Statistics in the Plural Sense (features of statistical data)*

In the plural sense, statistics refers to aggregates of facts affected to a marked extent by multiplicity of causes, numerically expressed, collected in a systematic manner for a pre-determined purpose, estimated according to reasonable standards of accuracy and placed in relation to each other.

i. **Aggregate of facts:** Data to be called statistics must consist of aggregate of certain facts. A single and isolated fact or figure like, 'Ram is 15 years old.' is not statistics. For a data to be counted as statistics it must be in the form of a set or aggregate of certain facts such as a series relating to ages of 30 students in a class.

ii. **Affected by multiplicity of causes:** Statistical data is affected to a marked extent by a multiplicity of causes. There are a variety of forces or factors operating on the facts and figures in an aggregate. The influence of any particular factor cannot be isolated easily.

For example: Statistics of production of a crop like rice is affected by extent of rainfall, fertilizer, seeds etc. It is not possible to study the effect of each of these factors separately on the production of rice.

iii. **Numerically expressed:** Any fact to be called statistics has to be expressed numerically or quantitatively. Qualitative attributes such as honesty, truth, loyalty etc. cannot be called statistics unless assigned a numerical value as a quantitative measure of assessment.

For e.g: 'Ram is shorter than Shyam' cannot be called statistics but if the same is expressed quantitatively in numbers like 'Ram is 155 cm, Shyam is 160 cm and Anusha is 153 cm tall', we can call it statistics.

iv. **Collected with a reasonable standard of accuracy:** The standard of estimation and of accuracy differs from enquiry to enquiry or from purpose to purpose. There cannot be one standard of uniformity for all types of enquiries and for all purposes. The process of generalization can be achieved only with a reasonable standard of accuracy.

For example: A single student cannot be ignored when we say that there were 50 students present in a class. But while reporting the number of people in a rally, the reporters merely find an estimate of the number of people.

v. **Collected for a pre-determined purpose:** Statistics should be collected for a pre-determined goal or objective in mind. Without any objective, data collected will be useless. Data collected without complete awareness of the purpose will be confusing and cannot be used for deriving valid conclusions. Thus, the purpose of collecting data must be decided in advance.

vi. **Collected in a systematic manner:** For reliability or accuracy of data, the figures must be collected in a very systematic manner. Any rough and haphazard method of collection will not be desirable for that may lead to wrong conclusions and the reliability of such data could deteriorate.

vii. **Statistics should be placed in relation to each other:** Collection of data is done for purpose of comparison of data. If the figures collected are not comparable, then they lose a large part of their significance. Also, data must be homogenous to make meaningful comparisons.

Functions of Statistics

i. **To simplify complex facts:** Statistical methods try to present huge complex numerical data into simple and understandable form. For example: Statistical techniques like mean, median, correlation etc. help condense huge data into a simple and easily understandable form.

ii. **To present facts in a definite form:** Quantitative facts are easier to believe in comparison to qualitative facts. Statistics summarizes the generalized facts and presents them in a definite form. For example: Statement like 'the annual rate of inflation is 6%' is more convincing and explanatory than a general statement like 'Prices are rising'.

iii. **To make comparisons**: Comparison between different sets of observation is an important function of statistics. Various statistical methods are used to compare data like averages, percentages, ratios etc.

iv. **To facilitate planning and policy formulation:** On the basis of numerical data and their analysis, planners and businessmen can plan future activities and shape their policies.

v. **To help in forecasting:** Statistical tools like time series analysis and 'what if' analysis help in making projections for future. This helps businessmen make contingency plans for their future to reduce uncertainties arising out of the business cycles.

vi. **Formulating and testing hypothesis**: Statistical methods can be extremely useful in formulating policies and testing hypothesis such as whether a rise in railway fares will reduce the passenger traffic or not.

Importance of Statistics

- **In Business**

(TO BE COMPLETED FROM THE TEXTBOOK)

Importance of Statistics in Business

Statistics is important in the business due to following reasons:

1. For Establishing a Business Unit: Before starting a business, it is necessary to know its feasibility. It involves detailed information about location, size of output, availability of inputs, taxes, size of market share, turnover, etc. Statistics provide guidelines, which may prove to be helpful in making key decisions.
2. For Estimating the demand of product: After launching of the business, the next step is to estimate the present as well as the future demand of the product. Statistical methods are extremely helpful in preparing trend lines leading to reliable forecasting.
3. For Production Planning: The businessman has to plan its production so that he is able to meet the demand of its product and incurs minimum losses on account of over or under production. Careful production planning is essential for maintaining a balance between demand and supply.
4. For Making Quality Control: Statistical techniques (like preparation of control charts) can also be used to control the quality of the product manufactured by a firm.
5. For Making Marketing Strategy: Before a product is launched, market research team makes use of various statistical techniques (like pilot survey), to analyse data on population, purchasing power, habits of the consumers, competitors, pricing, etc. Such studies reveal the possible market potential for the product.
6. Accounts writing and auditing: Every business firm keeps accounts of its revenue and expenditure.
   - For taking certain decisions in a business, these accounts are required to be summarized in a statistical way.

- **In Economic Planning/Government**

Using statistics, it is possible to assess the amounts of various resources available in the economy and accordingly determine whether the specified rate of growth is sustainable or not.

Statistical analysis of data regarding an economy may reveal certain crucial areas such as increasing rate of inflation which may need immediate attention.

Index numbers, time series analysis are extensively used for minimum wage legislations and other policy formulations.

- **In Economics**

(TO BE COMPLETED FROM THE TEXTBOOK)

Importance of Statistics in Economics

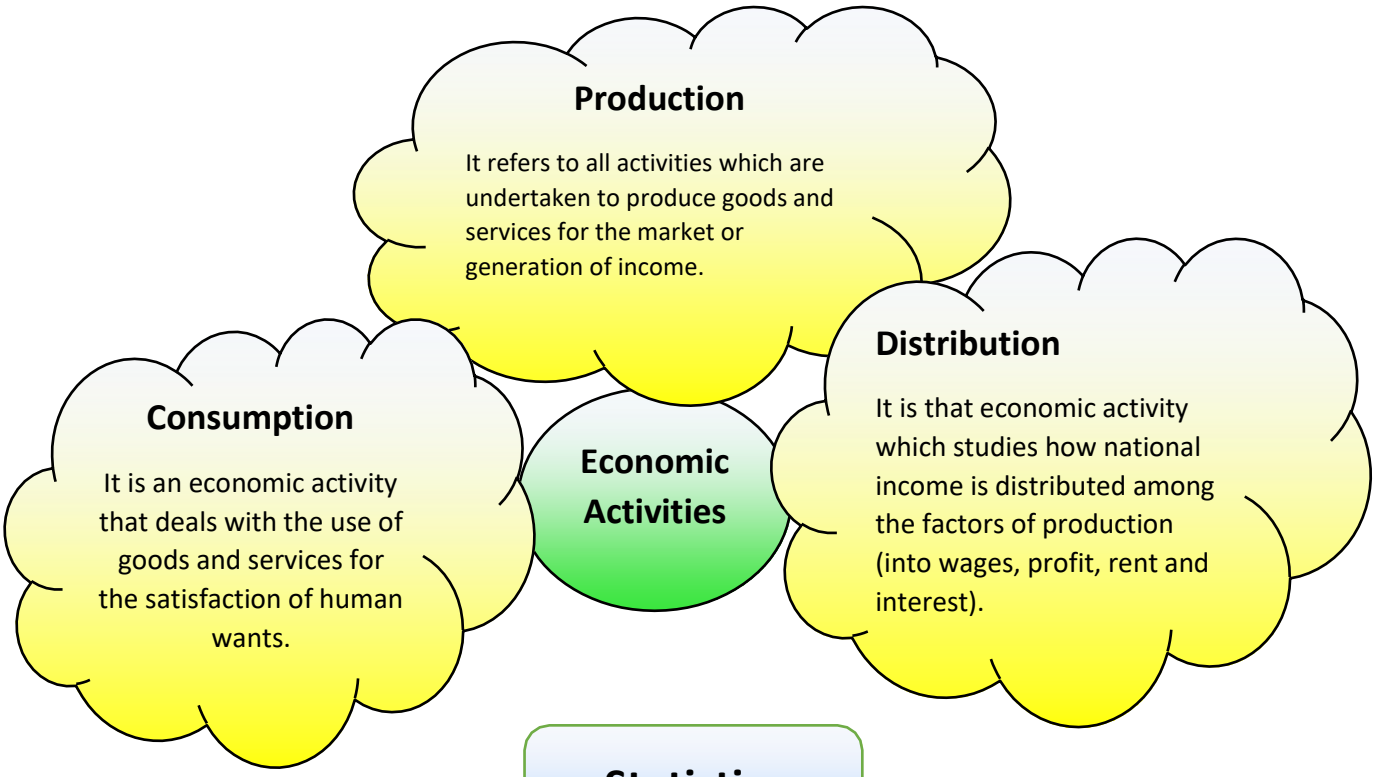
Statistics is an indispensable tool for a proper understanding of various economic problems.

- Every branch of economics takes support from statistics in order to prove various economic theories in it.
- Statistics provides important guidelines for the formulation of various economic policies.
- Most of the economic problems are capable of being expressed in numerical figures. *For example*, output of agriculture, volume of exports, prices of commodities, etc. In each case, the data is affected by a multiplicity of factors. Further, it can be shown that the other conditions prescribed for statistical data are also satisfied.

Thus, we can say that the study of various economic problems is essentially the one of a statistical nature. *Some of the uses of statistics in economics are as follows:*

1. **Formulation of Economic Laws:** The famous 'Law of Demand' and the concept of 'Elasticity of Demand' have been developed by the Inductive method of generalisation, which is also based on statistical principles.
2. **Helps in understanding and solving an economic problem:** Statistical data and statistical methods play a vital role in understanding and solving economic problems such as poverty, unemployment, disparities in the distribution of income and wealth, etc.
3. **Study of market structures:** Study of perfect competition, oligopoly, monopoly, etc. requires statistical comparison of market prices, cost and profits of individual firms.
4. **Helps in establishing mathematical relation:** Statistical methods can also be used to estimate mathematical relation between various economic variables. *For example,* data on prices and corresponding quantities demanded of a commodity, can be used to estimate mathematical form of demand relationship between the two variables.
5. **Useful to study behaviour of different economic concepts:** Trend-series analysis is used to study the behaviour of prices, production and consumption of commodities, money in circulation, and bank deposits and clearings.
6. **Price Analysis:** Statistical surveys of prices helps in studying the theories of prices, pricing policy and price trends as well as their relationship to the general problem of inflation.

Statistics for Economics



Statistics

Statistics in <u>singular sense</u>
(methods of statistical analysis)

- Collection of data
- Organisation of data
- Presentation of data
- Analysis of data
- Interpretation of data using statistical tools.

Statistics in <u>plural sense</u>
(features of statistical data)

- Aggregate of facts
- Numerically expressed
- Affected by multiplicity of causes
- Collected for a pre-determined purpose
- Collected systematically
- Collected with a reasonable amount of accuracy.
- Placed in relation to each other.

<u>Functions of Statistics</u>

- To simplify complex facts.
- To present facts in a definite form.
- To make comparisons.
- To facilitate planning and policy formulation.
- To help in forecasting.
- Formulating and testing hypothesis.

<u>Summary</u>

- *Purchase of goods by consumers to satisfy their various needs is Consumption.*
- *Manufacture of goods by producers for the market or generation of income is Production.*
- *Division of the national income into wages, profit, rent and interest is Distribution.*

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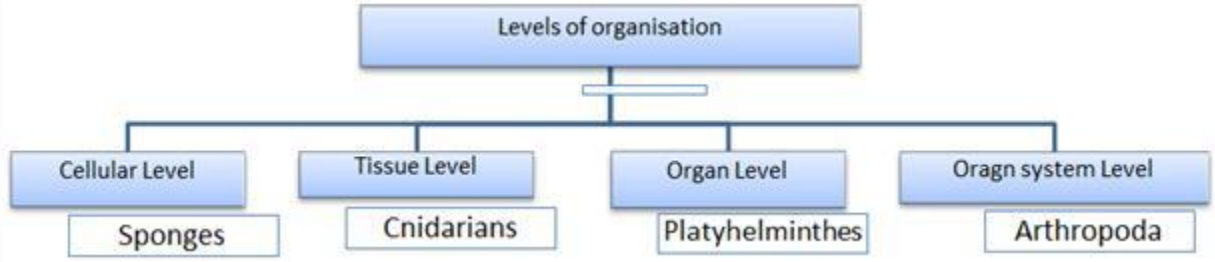
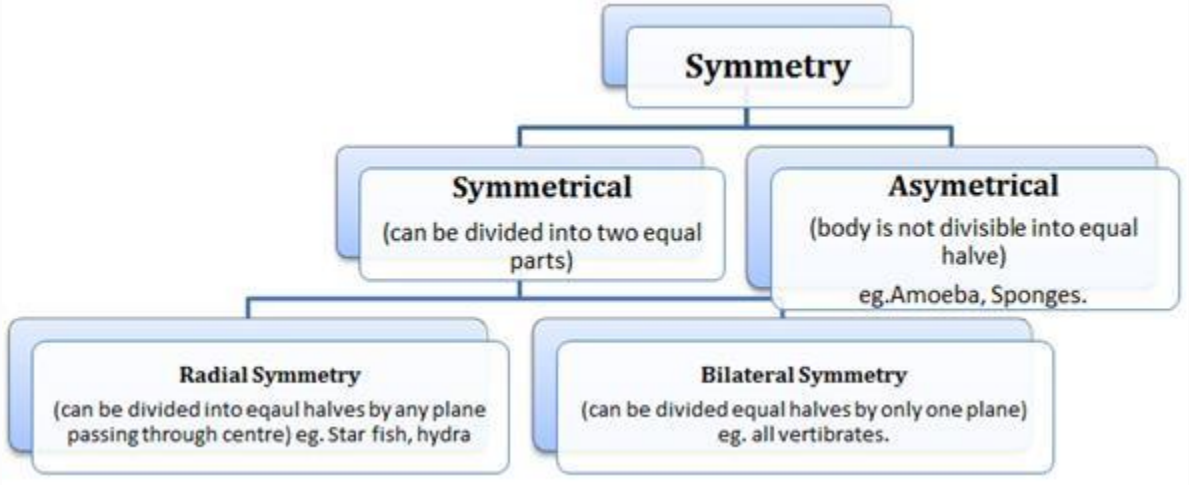
EAST POINT SCHOOL
STUDY MATERIAL
Class-11 Biology
Date- 13/8/2021

CHAPTER-04
Animal Kingdom

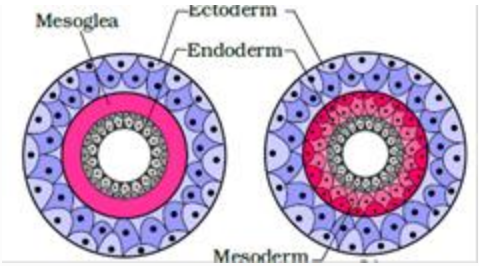
- Millions of species of animals have been described and it becomes more necessary to classify them to assign a systematic position.
- Animals are classified on the basis of arrangement of cells, body symmetry, nature of coelom, pattern of digestive, circulatory and reproductive system.



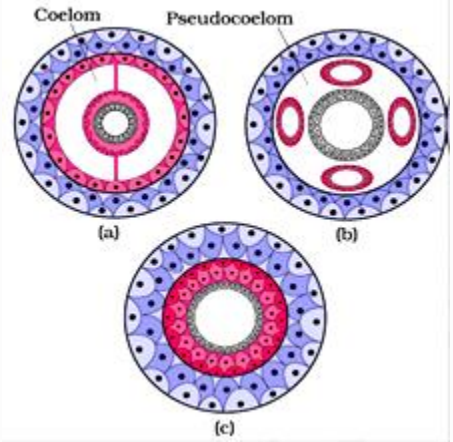
- Incomplete digestive system has one opening but complete digestive system has two opening- mouth and anus.
- Open circulatory system- blood is pumped out of heart and cells and tissue are directly bathed in it.
- Closed circulatory system- blood is circulated through arteries, veins and capillaries.



- The animals in which cells are arranged in two embryonic layer, external ectoderm and internal endoderm are called **diploblastic**. Eg. Porifera and Cnidaria.



- The animals in which developing embryo has a third germinal layer, mesoderm besides ectoderm and endoderm are called triploblastic. Eg. Platyhelminthes, Chordates.
- The body cavity which is lined by mesoderm is called coelom. Animals possessing coelom are called **coelomate** (Annelida, Chordates, Mollusca). In some animals cavity is not lined by mesoderm but scattered as pouches in between ectoderm and endoderm, are called **pseudo-coelomates** (Aschelminthes). The animals in which body cavity is absent are called **acoelomate** (Platyhelminthes).



- In some animals, body is externally and internally divided into segments with serial repetition as in earthworm, called metameric segmentation.

CLASSIFICATION OF ANIMALS

Phylum Porifera-

- Members of this phylum are commonly known as sponges. Mostly marine, asymmetrical and have cellular level of organization.
- They have water transport or canal system. Water enters through minute pores, **Ostia** into central cavity **Spongocoel**, from where it goes out through **Osculum**.
- Nutrition, respiration and excretion is performed by pathway of water transport system.
- Skeleton made up of spicules or spongin fibres.
- Egg and sperms are produced by same organism (hermaphrodite). Asexual reproduction by fragmentation and sexual reproduction by gametes formation.
- Fertilisation internal and development is indirect.
- Example– *Sycon, Spongilla.*

Phylum Cnidaria (Coelenterate)-

- They are aquatic, mostly marine, sessile, free swimming, radially symmetrical animals.

- They exhibit tissue level of organization, diploblastic, coelomate with single opening.
- They show two types of body called polyp and medusa.
- Polyp is sessile, fixed, and cylindrical, without gonads. Example: *Hydra, Adamsia.* Medusa is free swimming, umbrella like having gonads like *Aurelia* and *Jelly fish.*
- Some cnidarians exhibits both forms (*Obelia*). Polyp produce medusa asexually and medusa produce polyp sexually.

Phylum Ctenophora-

- Commonly known as the Comb Jellies or Sea Walnuts.
- Exclusively marine, diploblastic, radially symmetrical, with tissue level of organization.
- Body bears eight ciliated comb plates which help in locomotion.
- Bioluminescence (to emit light) is present in Ctenophores.
- Are Hermaphrodite, fertilisation is external, development indirect.
- Example- *Ctenoplana, Pleurobranchia*.

Phylum Platyhelminthes (The Flat worms)

- Dorso-ventrally flattened body, bilaterally symmetrical, triploblastic, acoelomate with organs levels of organization.
- Hooks and sucker are present in parasitic forms. **Flame cells** help in osmoregulation and excretion.
- Fertilisation is internal, development is indirect. They are hermaphrodite.
- Example- *Taenia, Planaria, Fasciola.*

Phylum Aschelminthes (The Round Worm)

- They may be free-living, aquatic, terrestrial or parasitic in plants or animals.
- Bilaterally symmetrical, triploblastic, pseudo coelomate.
- Alimentary canal is complete with well-developed muscular pharynx.
- They are Dioecious. Females are longer than male.
- Example- *Ascaris* (round worm), *Wucheriria*(filarial worm), *Ancyclostoma*.

Phylum Annelida

- Aquatic or terrestrial, bilaterally symmetrical, segmented with organ system level of organization.
- Aquatic Annelids like *Nereis* possesses lateral appendages parapodia, for swimming. **Nephridia** help in osmoregulation and excretion.
- Neural system consists of paired ganglia connected by lateral nerves to a double ventral nerve cord.
- Dioecious (Nereis) or monocious (earthworm, leech)
- Example- Pheretima (earthworm), Hirunidaria (Blood sucking leech).

Phylum Arthropoda

- Largest phylum of animals which includes insects. They have organ system of organization. They are triploblastic, coelomate, bilaterally symmetrical with chitinous exoskeleton.
- Body consists of head, thorax and abdomen, jointed appendages (jointed feet). Respiratory organs are gills, book lungs or tracheal system with open circulatory system.
- Excretion through malpighian tubules, sense organs antenna or eyes. Fertilisation internal, mostly oviparous.
- Example-

Economically important – *Apis* (honey bee), *Bombyx* (silk worm).
Vectors – Anopheles, Ades, Culex (mosquito).
Living fossils – Limulus (king crab)

Phylum Mollusca

- Terrestrial or aquatic, organ level of organization, bilaterally symmetrical, triploblastic and coelomate.
- Body divided into head, muscular foot and visceral hump. Unsegmented and covered with calcareous shell.
- Feather like gills are present between hump and mantle.
- Mouth contains file like rasping organ for feeding called **radula.**
- Example- *Pila, Octopus*.

Phylum Echinodermata (The Spiny Skinned Animals)

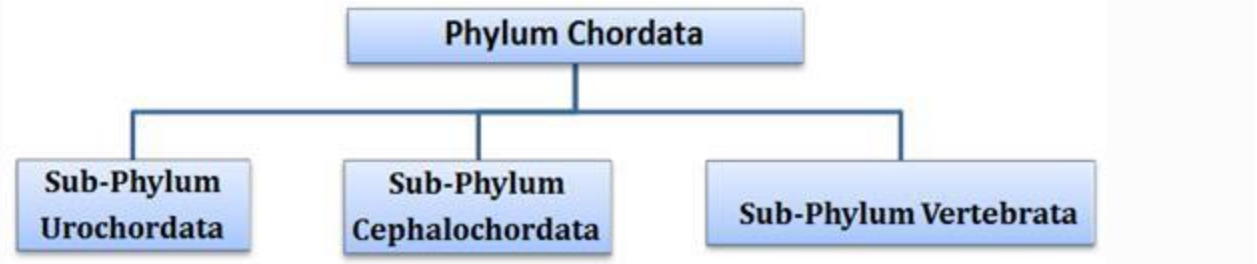
- Endoskeleton of calcareous ossicles, marine with organ system of organization.
- Triploblastic, coelomate, presence of **water vascular system** help in locomotion, capture of food and respiration.
- Sexes are separate, fertilisation is external and development is indirect.
- Example- Asterias (Star fish), Cucumaria (Sea cucumber), Antedon (Sea lily).

Phylum Hemichordata

- **Worm-like** marine animals with organ system of organization, bilaterally symmetrical, triploblastic and coelomate animals.
- Body is cylindrical, composed of anterior **proboscis**, a **collar** and a long **trunk**.
- Open circulatory system, respiration by gills, excretory organ is proboscis glands.
- Sexes are separate, fertilisation external, indirect development.
- Example- *Balanoglossus, Saccoglossus*.

Phylum Chordates

- Presence of notochord, have dorsal hollow nerve chord and paired pharyngeal gill slits.
- Bilaterally symmetrical, triploblastic, coelomate with organs system levels of organization.
- Closed circulatory system, ventral heart, post-anal tail is present.



- In **Urochordata**, notochord is present only in larval tail. In **Cephalochordate** it extends from head to tail and persists throughout the life.
- **Vertebrata** possesses notochord in embryonic period which is replaced by vertebral column in the adults.
- **Sub-phylum Vertebrata** is further divided into two division **Agnatha(** lacks jaw) and **Gnathostomata** (bears jaw).
- **Gnathostomata** is further divided into two super class- **Pisces(** bears fins) and **Tetrapoda** (bears limbs).

CLASS 11
STUDY NOTES
PHYSICS

Motion In A Straight Line

Differentiation

Differentiation is the process of obtaining the derived function $f'(x)$ from the function $f(x)$, where $f'(x)$ is the derivative of f at x.

The derivatives of certain common functions are given in the Table of derivatives,

Table of derivatives :

$f(x)$	$f'(x)$
x^n	nx^{n--1}
$\sin x$	$\cos x$
$\cos x$	$--\sin x$
$\tan x$	$\sec^2 x$
$\cot x$	$--\text{cosec}^2 x$
$\sec x$	$\sec x \tan x$
$\text{cosec } x$	$--(\text{cosec } x)(\cot x)$
$\ln x$	1x1x
e^x	e^x

Many other functions can be differentiated using the following rules of differentiation:

(i) If $h(x) = k f(x)$ for all x, where k is a constant, then $h'(x) = k f'(x)$.

(ii) If $h(x) = f(x) + g(x)$ for all x, then $h'(x) = f'(x) + g'(x)$.

(iii) The product rule: If $h(x) = f(x)g(x)$ for all x, then $h'(x) = f(x)g'(x) + f'(x)+g'(x)$.

(iv) The reciprocal rule: If $h(x) = 1/f(x)$ and $f(x) \neq 0$ for all x, then$h'(x) = -f'(x)(f(x))2h'(x) = -f'(x)(f(x))2$

(v) The quotient rule: If $h(x) = f(x)/g(x)$ and $g(x) \neq 0$ for all x, then
$h'(x) = g(x)f'(x)-f(x)g'(x)(g(x))2h'(x) = g(x)f'(x)-f(x)g'(x)(g(x))2$

(vi) The chain rule: If $h(x) = (f \circ g)(x) = f(g(x))$ for all x, then $h'(x) = f'(g(x))g'(x)$.

Integration

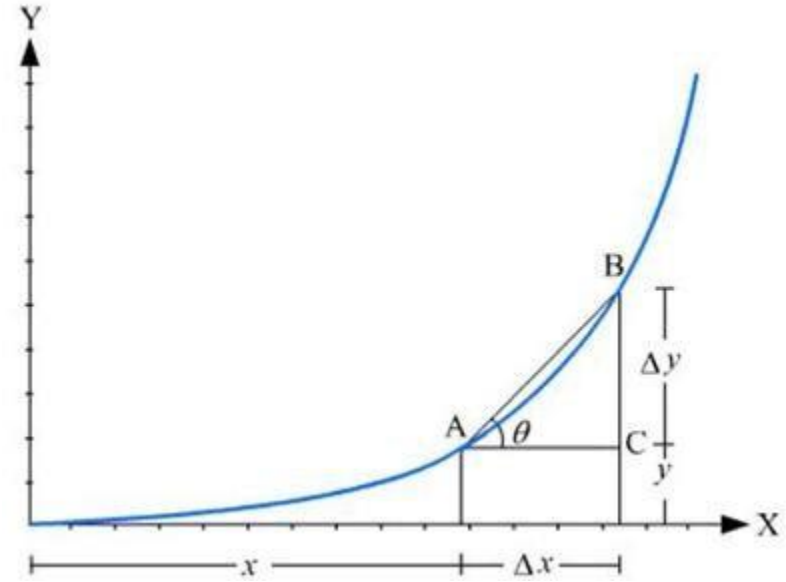
Integration is the process of finding an anti-derivative of a given function f. 'Integrate f' means 'find an anti-derivative of f'. Such an anti-derivative may be called an indefinite integral of f and be denoted by $\int f(x)dx\int f(x)dx$.

The term 'integration' is also used for any method of evaluating a definite integral. ∫baf(x)dx∫abf(x)dx

The definite integral can be evaluated if an anti-derivative Φ of *f* can be found, because then its value is Φ(*b*) − Φ(*a*). (This is provided that *a* and *b* both belong to an interval in which *f* is continuous.)

However, for many functions *f*, there is no anti-derivative expressible in terms of elementary functions, and other methods for evaluating the definite integral have to be sought, one such being so-called numerical integration.

Differential calculus



Let *x* and *y* be two quantities interrelated in such a way that for each value of *x* there is one and only one value of *y*.

The graph represents the *y* versus *x* curve. Any point in the graph gives an unique values of *x* and *y*. Let us consider the point A on the graph. We shall increase *x* by a small amount Δ*x*, and the corresponding change in *y* be Δ*y*.

Thus, when *x* change by Δ*x*, *y* change by Δ*y* and the rate of change of *y* with respect to *x* is equal to $\frac{\Delta y}{\Delta x}$

In the triangle ABC, coordinate of A is (x, y); coordinate of B is (*x* + Δ*x*, *y* + Δ*y*)

The rate $\frac{\Delta y}{\Delta x}$ can be written as,

$$\frac{\Delta y}{\Delta x}=\frac{BC}{AC}=\tan\theta=\text{slope of the line AB}$$

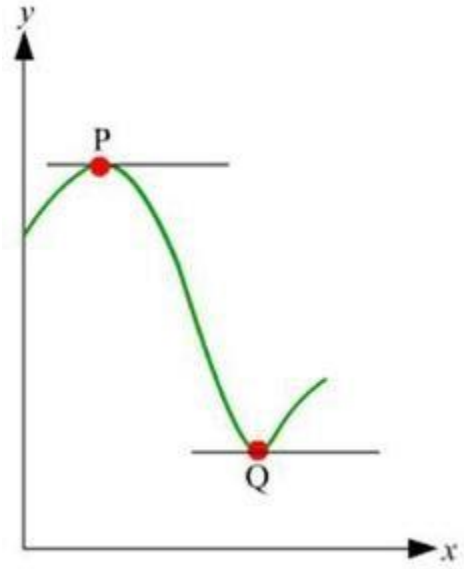
But this cannot be the precise definition of the rate because the rate also varies between the point A and B. So, we must take very small change in x. That is Δx is nearly equal to zero. As we make Δx smaller and smaller the slope $\tan\theta$ of the line AB approaches the slope of the tangent at A. This slope of the tangent at A gives the rate of change of y with respect to x at A.

This rate is denoted by $\frac{dy}{dx}$ and,

$$\frac{dy}{dx}=\lim_{\Delta x\to 0}\frac{\Delta y}{\Delta x}$$

Maxima and Minima

Let x and y be two quantities interrelated in manner as shown in the graph below:



At the points P and Q the tangents to the curve is parallel to the x-axis.

Hence, its slope $\tan\theta = 0$.

But we know that the slope of the curve at any point equals the rate of change $\frac{dy}{dx}$ at the point.

Thus, at maximum (at P) or at minimum (at Q),

$$\frac{dy}{dx}=0$$

Just before the maximum the slope is positive, at the maximum it is zero and just after the maximum it is negative. This implies, $\frac{dy}{dx}$ decrease at a maximum.

$$\therefore \frac{d}{dx}\left(\frac{dy}{dx}\right) < 0 \text{ at maximum}$$

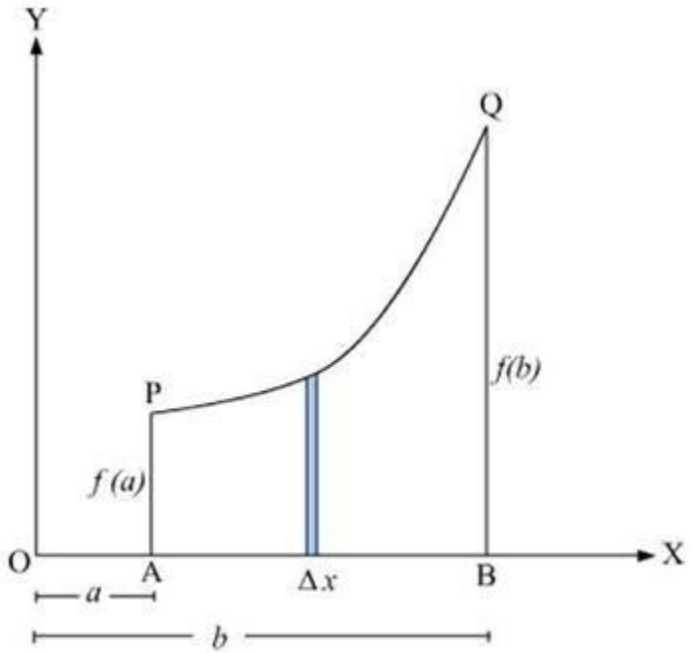
$$\text{Or, } \frac{d^2y}{dx^2} < 0 \text{ at maximum}$$

Similarly, at the minimum:

$$\frac{d^2y}{dx^2} < 0 \text{ at maximum}$$

Integral calculus

In the graph we have a curve PQ representing the relation between *x* and *y*. The equation of the curve is, $y = f(x)$



We shall find out the area under this curve. That is we need the area of APQB. To find this we shall first consider a very thin rectangle touching the curve and standing on the x-axis. The width of the rectangle is so that both the edges of the side near the curve actually touch the curve almost at the same point which means that Δx is so small that it tends to zero.

Area of this thin rectangle is = $f(x)\,\Delta x$

We shall take *n* such rectangles and fill the area. The area of APQB in the sum of the area of the rectangles. This may be written as

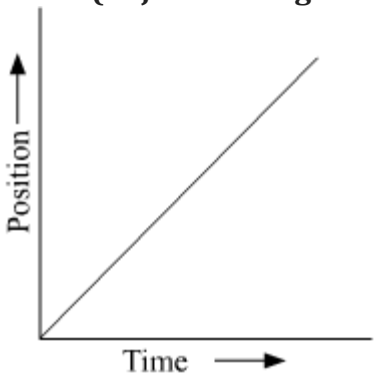
$$S = \lim_{\Delta x \to 0} \sum_{i=1}^{n} f(x_i)\Delta x$$

This quantity is also denoted as,

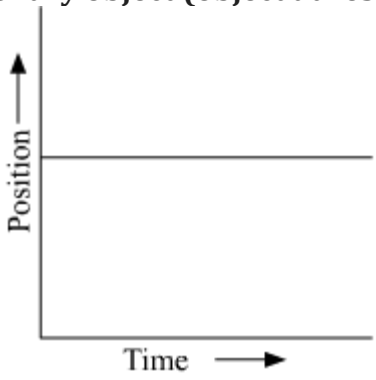
$$S = \int_a^b f(x)\,dx$$

- An object is at rest when the position of the object does not change with time and with respect to its surroundings.
- An object is in motion when the position of the object changes with time and with respect to its surroundings.
- Rest and motion are relative.
- If the distance covered by an object is much greater than its size during its motion, then the object is considered as point mass object.
- Distance or path length — Total length of the path covered by a body (scalar quantity)
- Displacement — Shortest distance between initial and final positions measured along a particular direction

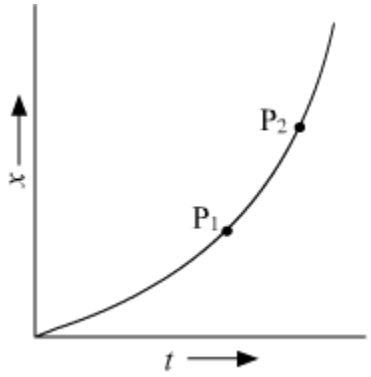
- **Uniform motion (object moving with a constant velocity):**



- **Stationary object (object at rest)**:



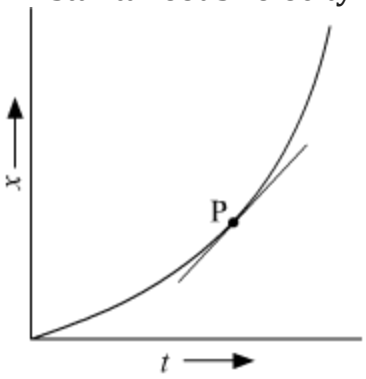
- **Average velocity (slope of the *x*-*t* graph)**



∴ Average velocity = slope of $\overline{P_1P_2}$

- **Average speed** = Total path lengthTotal time intervalTotal path lengthTotal time interval [No direction is considered]

- **Instantaneous velocity:**

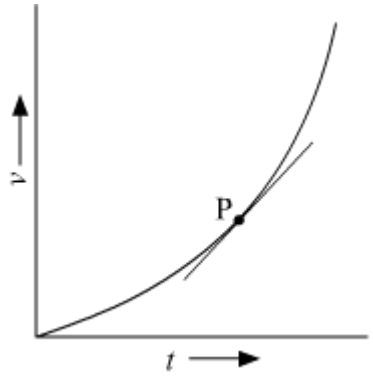


= slope of the tangent at point P

- **Average acceleration:**

a=v2−v1t2−t1=ΔvΔta=v2-v1t2-t1=ΔvΔt

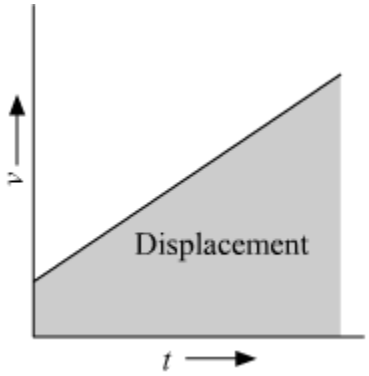
- **Instantaneous acceleration**:



a=limΔt→0ΔvΔt=dvdta=limΔt→0ΔvΔt=dvdt = slope of the tangent at point P

- Velocity-time graph showing constant acceleration, increasing acceleration and decreasing acceleration:

- **Area under the *v*-*t* curve is equal to the displacement of the body.**



- **Equation of motion**

  1st equation $v = u + at$

  2nd equation
  $s = ut + \frac{1}{2}at^2$

  3rd equation $2as = v^2 - u^2$

Equations of motions (Kinematic equations) [When acceleration is uniform]

Velocity-time relation
v=u+atv=u+at
Disatnce-time relation
s=ut + 12at2s=ut + 12at2
Velocity-displacent relation

v2−u2=2asv2-u2=2as

- Distance travelled in n^{th}second of uniformly accelerated motion is given by the relation,

$$D_n = u + \frac{a}{2}(2n-1)$$

Galileo's law of odd number

- The ratios of the distance covered by a body falling from the rest increase by odd numbers from one second to the next.That means, distances covered by each will increase by factors of 1, 3, 5, 7, …

Relative Velocity

- The relative velocity of a body **A** with respect to another body **B** (v_{AB}) is the time rate at which **A** changes its position with respect to **B**.
  - **Case 1: Both bodies move in the same direction**: If **A** and **B** are moving in the same direction, then the resultant relative velocity is $v_{AB} = v_A - v_B$
  - **Case 2: The bodies move in opposite directions**: If **A** and **B** are moving in the opposite directions, then the resultant relative velocity is $v_{AB} = v_A + v_B$

East Point School
Study Notes
Class: - XI (2021-22)
SOCIAL SCIENCE – HISTORY
Study Notes
Date: 19/07/2021

CHAPTER- 4
THE CENTRAL ISLAMIC LAND

As the time went on, Muhammad decided to consolidate this new religion of Islam through two ways-

1. First is through refinement of social rituals.
2. Second is when religion has attained a political character.

It is this second way of consolidating this new religion which has laid the foundation for the emergence of Islamic state in following ways :

- Following this strategy of attaining a political character, we observe that Muhammad had created a political order in Medina to provide protection to his followers by emphasizing upon their military strength.
- Soon we get to witness Muslim people organizing expeditionary raids over Meccan caravans with the help of their military unit.
- And soon after a series of battles, Mecca was conquered by Muhammad where his image as a religious preacher and political leader was established.
- After the establishment of Islamic political authority over Mecca, a lot of conversion began to take place.
- Kaba which was the central shrine of Meccans was cleansed of all the idols that were kept there.
- In a short span of time, Muhammad was able to unite a large party of Arabia under this new faith and religion of Islam.

- One important thing to note here regarding this early Islamic polity established by the Prophet is that it was more religiously oriented.
- This early Islamic polity witnessed a turning point after the death of Prophet Muhammad in 632 and with the emergence of this new political institution within Islam known as Caliphate.

The institution of Caliphate.

- After the death of Muhammad in 632, the question of succession has emerged since there was no established principle of succession.
- This has led to a lot of disputes among the Muslim community members, but apart from this has also created the scope for many innovations.
- The biggest innovation amongst this was the emergence of the institution of caliphate, in which the leader of the community became the deputy (Khalifa) of the prophet.
- The two main objective of the caliphate were to retain control over Umma and to raise resources for the state.

Administrative structure under the caliphate.

- All the new provinces which were being conquered by the caliphs, a new administrative structure came to be devised here.
- This new administrative structure was headed by a **governor (amirs)** and **tribal chieftains (ashraf).**
- The state had its own central treasury which used to obtain its revenues from the taxes paid by Muslims as well as its share of booty from the raids.
- The caliph's soldiers were mostly Bedouins who used to settle in camps cities at the edge of the dessert.
- The ruling class and soldiers received shares of the booty and monthly payment (ata).
- The non-Muslim population were allowed to hold property on their name, and enjoyed the freedom to practice their religion if and only they pay the tax called **Kharaj** and **Jiziya** to the state.
- These non-Muslim subjects like Jews and Christians who pays this tax of Jizya were declared as the **protected subject** of the state.

While discussing about this institution of caliphate, there exited two kinds of arrangements-

i. Caliphate system based within Medina
ii. Caliphate system growing out of Arabia.

Caliphate system based within Medina.

The institution of caliphate, which was based within medina, we see the rise of four pious caliph who has justified their power on the basis of close association with Prophet.

The four pious caliph who has ruled over the Islamic state were-

i. Abu Bakr
ii. Umar
iii. Uthman
iv. Ali

Abu Bakr

Abu Bakr was the first caliph, who has suppressed the external revolts against this Islamic state through a series of campaigns

Umar

- Umar was the second caliph, it was under his rule that the Islamic state has followed a strict policy of political expansion.
- After assuming the political power, Umar soon came to realize that the income derived from trade and taxes is not enough to maintain this class of Umma.
- Thus, he realized it's important to expand the political frontiers of the Islamic state by conquering territories under the Byzantine and Sassanian empire.
- Both the Byzantine and Sassanian empire ruled over a vast territory and commanded huge resource due to which the Islamic state wanted to establish a control over it.
- When Islamic state conducted its attack over these two empires both of it has declined due to their internal religious conflict and revolts by the aristocracy.

Uthman

- Further political expansion of the Islamic state was launched by the 3rd caliph Uthman
- In three successful campaigns, the Arabs brought Syria, Iraq, Iran and Egypt under the control of Medina
- Within a decade after Muhammad's death, a large part of Central Asia has come under the rule of Islam.

Ali

- Internal strife within the state began to show within the Islamic state with the accession of Ali.
- Many had opposed the political authority and accession of Ali.
- With Ali assuming the political power within the state, the Muslim community was divided into sects of Islam: Shias and Sunnis.
- Ali had established his political authority over Kufa, from where he had defeated an army lead by Aisha, wife of Prophet Muhammad, in the battle of **Carmel**.
- Ali however was not able to ensure his success over a faction which was led by Muwayia, a kinsman of Uthman and the governor of Syria.
- Ali was soon assassinated by a Kharji, in a mosque at Kufa. And after his death Muawiya declared himself as the next caliph in 661, founding the Umayyad dynasty which lasted till 750.

The Umayyads

- With the emergence of Umayyads, the institution of caliphate has moved from Medina to outside of Arabia (Damascus in Syria).
- The first Umayyad caliph was **Muawiya**, who has moved his capital to Damascus, and adopted the court ceremonies and administrative institution of Byzantine empire.
- The first major political innovation introduced by Umayyad caliph was hereditary succession, where he persuaded the Muslims to accept his son as the next heir of the state.

- This hereditary succession was even followed by those people who followed him next in line.
- The Umayyads state has attained the characteristic of an imperial authority, which was not so much depended upon the religion of Islam. The imperial authority was rather based on statecraft and the loyalty of Syrian troops.
- Thus, we observe that the nature of the Islamic state has shifted from its religious character to that of a political character.
- **Abd al-Malik** one of the well-known ruler of Umayyads dynasty had made efforts to retain their Arabic identity by establishing Arab as the official language of the state.
- And by issuing some gold coins which were known as **dinars** and silver coins which were known as **dirham**.
- Both these coins that were issued were modelled after the Byzantine and Iranian empire, where they had an Arabic inscription was written at the back side of the coins.
- They also retained their Arab identity by building the **Dome of Rock in Jerusalem.**

The Abbasid Revolution

- Umayyads were soon replaced by another ruling dynasty known as Abbasids, a well-organized movement called **dawa** has replaced the political power of Abbasids with that of Umayyads.
- This replacement of ruling dynasty has brought changes in the political and cultural realm of the Islamic state.
- Abbasids were basically the descendants of Abbas, who was the uncle of Prophet Muhammad, they legitimized their claim for the authority of political power by declaring themselves to have belong from the family of prophet.
- The Arabs were dissatisfied with the regime of Umayyads because under their ruling regime, the Syrians were enjoying a political domination and they were not provided the tax concession that were promised off, this has created a widespread dissatisfaction amongst them.
- Abbasids took advantage of this dissatisfaction, and with the help of Arabs has defeated the Umayyads in a battle at the river Zab, the Abbasid force here was lead by an Iranian slave name Abu Muslim.

- After establishing their political authority, they had shifted their capital from Damascus to Baghdad.
- The army and the bureaucracy were re-organized on a non-tribal basis under the leadership of Abbasids.
- The Abbasids also restored the religious status of the empire. The maintained a centralized imperial structure where an elaborate court culture was being adopted by them.

Landscape of the Soul

Nathalie Trouveroy

About the author:

Nathalie Trouveroy was born on February 2, 1975. Nathalie Trouveroy, wife of the Belgian Ambassador to India, is an art historian. Recently she and her friend Agnes Montanari translated William Dalrymple's masterpiece on Delhi, 'City of Djinns' in pictures.

Introduction to the Lesson

Written by Nathalie Trouveroy, the chapter is about how different the Chinese Art form is, from the European art form. The writer uses two stories to make a contrast. European art is about reproducing an actual view whereas Chinese art is about not creating a real landscape. European art is an artist's way to let viewers show exactly what he wants them to see in the landscape. Chinese art is the artist's spiritual and inner voice where you can travel from any point and it lets the viewer creates a path for their imagination.

Summary:

This chapter divided into two parts, each telling us about art and its history through various stories. In the part taken from 'Landscape of the Soul: Ethics and Spirituality in Chinese Painting', we learn about the art of painting through anecdotes. This chapter elucidates the nuances in the European and the Chinese art.

The chapter begins with a classical Chinese anecdote telling an old story about the painter, Wu Daozi, and his patron: the Chinese Tang emperor in the eighth century, Xuangzong. The emperor commissions him to paint a landscape for the palace wall which he paints. The landscape is beautifully designed with all natural aspects like high mountains, floating clouds in an immense sky, waterfalls, birds and men in hilly paths. The emperor highly admires the scenery for its material, and physical beauty but lacks to see its spiritual or inner beauty. As a result of which the painter and the painting vanish away from the palace to the conceptual or the inner space leaving the emperor in this material world. The author has juxtaposed two other European anecdotes from Flanders and Antwerp to bring out the subtle differences between the arts from two different regions. In one of the

stories, the painter fears to draw the eye of the dragon he has painted and in the other he, Qinten Metsys, paints the fly with such delicate realism that it gives illusion of the real to the spectator. These anecdotes provide the reader an accurate idea of how the European art is more inclined towards being figurative, hyper-realistic and illusionistic whereas the Chinese art is more conceptual, spiritual and intrinsic one.

The author also elaborates on the Chinese art of painting. It does not have a specific perspective (point of view) unlike the European ones. One can enter the painting through any angle or point of view and travel in it at one's personal choice instead of following the eye of the painter. How the Chinese landscape is a

conceptual space is expressed through the concept of shanshui, literally, 'mountain water' which used together represents the word landscape. It also follows the Daoist view of the universe which includes three parts: Yang(stable, warm and masculine aspect represented through mountains), Yin (receptive, smooth and feminine part represented through waters) and the Middle Void, a place of interaction between heaven and the earth marked with human presence. The human is the real mediator between heaven and the earth and thus called as "the eye of the landscape".

The chapter also includes an article, "Getting Inside 'Outsider Art'" by Brinda Suri. It talks about the brut or raw art of the post- modern world (1940s) performed by one and all irrespective of their prior technical or academic knowledge of art. The concept of the brut art assumes everyone to be an artist. One is free to use any kind of material to make one's art piece. Rock Garden at Chandigarh made by Nek Chand is the living testimony of brut art.

<u>Important Themes and Key words:</u>

- Delicate realism; illusionistic likeness; figurative.
- Spiritual and conceptual space.
- Dao; Daoist view of the universe; Shanshui; Yang; Yin; the Middle Void.
- Confucius; Zhuangzi; Wu Daozi; Tang Emperor Xuanzong.
- The chapter explains how the artistic and cultural values are embedded in the anecdotes and how it helps to understand one's roots.
- It also tells that the art works are representative of one's cultural values as the Chinese painting is a conceptual space because the Chinese stress upon the soul and spirit than on externality as done by the Europeans.

- It also brings out the importance of an artist in a society because the emperor or the representative (in a democracy) fails to understand the pulse or the soul of humanity which can only be sensed by an artist.

Short Question -Answer:

1. Discuss "The Emperor may rule over the territory he has conquered, but only the artist knows the way within."

Ans: The statement means that the Emperor rules over the territory which he has conquered and have the power but the artist knows the path and mysterious work of the universe. The artist can go beyond the materialistic appearance of objects. No matter how powerful the Emperor was, the artist's true art form can be seen the way he wants to show them.

2. Find out the correlates of Yin and Yang in other cultures.

Ans: In Indian culture, Yin which is receptive and female part and Yang which is Masculine and male part are known as 'Maya' and 'Brahma'. Nature is the Yin and God is the creator of the universe.

Likewise Yin-Yang, the two combination of Maya and Brahma creates a world.

3. What is the language spoken in Flanders?

Ans: French language is spoken in Flanders which is situated in Belgium.

Q4.) Explain the concept of Shanshui.

Ans) The Chinese painting being a conceptual or spiritual space is explained through the concept of shanshui that means 'mountain water' which when used together can be called landscape. The concept includes two main aspects of the origin of the world: mountain being vertical, warm and representative of the masculine energy, Water being horizontal, moist and representative of the feminine energy. The interaction of these two through the medium of humans keeps the world going.

Q.5) Why has Francois Cheng called human 'the eye of the landscape'?

Ans) According to the Daoist view of the universe, the world is made of the two complementary poles of Yang and Yin. Yang is the vertical, dry and stable mountain symbolic of masculine part whereas Yin is the horizontal, fluid and cool water symbolic of feminine energy. In a Chinese landscape, these two poles interact with each other through the medium of humans in the blank space in the scenery. In real sense, humans create the whole of the universe with its presence. Thus, he is called 'the eye of the landscape'.

Q6.) How did Qinten Metsys impress the painter and achieve his goals?

Ans.) Qinten Metsys, a master blacksmith, fell in love with a painter's daughter. But his suit was rejected on grounds of his low vocation. One day he entered the studio of the painter secretly and painted a fly on the latest panel. The painter took it for real and tried to swat it away but soon realized the artistic genius of the blacksmith. He took him as his apprentice as he was highly impressed.

Q7.) What is the unique feature of the horizontal scroll?

Ans.) The horizontal scroll is a set of continuous paintings in which each section represents a different action and a different time zone. This is representative of the Chinese painting as one can view it following one's own perspective and needs both physical and mental involvement.

Q8.) Which story from Flanders, Europe, is most representative of Western paintings?

Ans.) The story of Flanders is about a famous painter who would not draw the eye of the dragon he had painted. He had a fear that the dragon would come alive with eyes to see. This represents how figurative and illusionistic the European paintings are, laying emphasis on the external values.

Long Question- Answer:

Q9.) Contrast the Chinese view of art with the European view with example?

Ans.) A painter in the Chinese painting does not guide the spectator in a particular view. He lets you travel up and down moving freely in a leisurely manner as there is no single viewpoint whereas a European painter borrows one his eyes to look at a landscape from a specific angle. The Chinese painter focuses more on concept and spirit unlike Europeans who stress more upon realistic output. The Chinese

anecdote about Wu Daozi and his patron says that there is spirit or soul like quality in the Chinese painting which an artist is only able to create and see. Similarly the Belgian stories of a blacksmith, Quentin Metsys: one who draws a hyper-realistic fly, and a painter from Flanders: one who fears to draw the eye of the dragon for the fear of it would come alive show that the Europeans have realistic, illusionistic and figurative qualities.

Q10.) Who was the 'untutored genius who created a paradise' and what is the nature of his contribution to art?

Ans.) The Indian born and altogether untrained artist Nek Chand created a paradise using waste material at Chandigarh. He cut and cleared the rocky place and created his dream. This drew the attention of the world. He is an untrained visionary. His art work falls under raw art. It is said to be the art of those who have 'no right' to be called artists because they have no formal training. But sometimes such artists show remarkable talent and insight. Nek Chand's creation is known as the 'Rock Garden'.

The Swiss Commission organized a European exhibition in 2005 on Nek Chand's work of art. It was shown in various other European countries. Thus Nek Chand by virtue of his untutored talent won international recognition.

Q11.) How do you think an artist is the soul of the society?

(Attempt it yourself)

East Point School

Study Notes
Class: - XI (2021-22)
Political Science

RIGHTS

- Rights are primarily those claims which are necessary for leading a life of respect and dignity. Rights are the favorable conditions and guarantees to be provided by a state to its citizens to live up a dignified life.
- These rights can be categorized as Social Rights, Political Rights and Fundamental Rights to procure equality, liberty and social justice into society.
- Political rights give to the citizens the right to equality and to participate in political processes.
- Economic rights gives the right to enjoy the opportunities to earn one's own livelihood to fulfill their basic needs
- Fundamental Rights are specially protected to ensure that they are not violated even by the government. Because these are protected by the constitution of the country.
- There are 6 Fundamental Rights guaranteed by Indian Constitution to its citizens:
    - Right to Equality
    - Right to Freedom
    - Right to Freedom of Religion
    - Right against Exploitation
    - Cultural and Educational Rights
    - Right to Constitutional Remedies
- Fundamental Rights except the Right to Life and personal liberty may be suspended only during the emergencies like foreign attacks or internal disturbances.
- Duty is an obligation by which, we are bound to do something which can be classified as fundamental duties, legal duties and moral duties.
- A bill of rights is enshrined in the constitution to be given a primary importance, known as fundamental rights..
- But rights can be enjoyed only, if a person is committed towards the duties also.
- Moral duties include duties towards self, family, society, neighbors, humanity, etc.

- Legal duties include obedience of law, payment of taxes, to participate in military services if required as well as to cooperate with government employees.
- On 10th of December 1948, the General Assembly of the UN adopted and proclaimed the universal declaration of Human Rights as a common standard of achievement for all peoples and all nations.
- South African Constitution grants most extensive range of rights to its citizens including even right to dignity, privacy, fair labour practices, healthy environment, adequate housing, information, etc.
- Indian Constitution contains Directive Principles of State Policy also to establish a welfare state along with the Fundamental Rights.
- The judiciary has the power to enforce the Fundamental Rights but the Directive Principles of State are not enforceable by law.
- By the 42nd amendment, in 1976, the Fundamental Duties have also been inserted which are ten in numbers to defend our country, promote harmony and protect the environment.
- The inclusion of fundamental duties has not changed the status of our fundamental rights.

Important terms:

- Rights: These are guarantees to citizens to live up a social life in a dignified manner.
- Duties: A performance towards others or society to enjoy rights.
- Constitutional Remedies: Protective arrangements to citizens by the Constitution against any exploitation.
- Exploitation: The act of doing injustice with others in any manner.
- Begar: A forced labour without payment.
- Minorities: These are the groups having common language or religion and in a particular part of the country or in a country as a whole, these are out-numbered by some other social sections.
- Marginalized Communities: Communities left ignored like Dalits, OBCs, Weaker sections,, etc.

ASSIGNMENT

Q1 What are rights and why are they important? What are the bases on which claims to rights can be made?

Q2 On what grounds are some rights considered to be universal in nature? Identify three rights which you consider universal. Give reasons.

Q3 Discuss briefly some of the new rights claims which are being put forward in our country today—for example the rights of tribal people to protect their habitat and way of life, or the rights of children against bonded labour.

Q4 Differentiate between political, economic and cultural rights. Give examples of each kind of right.

Q5 Rights limits authority of state.Explain.

PASSAGE BASED QUESTION

Rights are primarily those claims that I along with others regard to be necessary for leading a life of respect and dignity. In fact, one of the grounds on which rights have been claimed is that they represent conditions that we collectively see as a source of self respect and dignity. For example, the right to livelihood may be considered necessary for leading a life of dignity. Being gainfully employed gives a person economic independence and thus is central for his/her dignity. Having our basic needs met gives us freedom to pursue our talents and interests. Or, take the right to express ourselves freely. This right gives us the opportunity to be creative and original, whether it be in writing, or dance, or music, or any other creative activity. But freedom of expression is also important for democratic government since it allows for the free expression of beliefs and opinions. Rights such as the right to a livelihood, or freedom of expression, would be important for all human beings who live in society and they are described as universal in nature.

Questions:
1. Why is the freedom of expression important?
2. How can we express ourselves?

East Point School

Study Notes

Class: - XI (2021-22)

PSYCHOLOGY

Study Notes

Growth	Development	Maturation	Evolution
refers to an increase in the size of body parts of the organisms as a whole it can be measured quantified	is a process by which an individual growth changes throughout the life cycle the term development applied to the changes that have a direction and whole definite relationship with development what precede and internal determine what will come after	refers to the changes that follow in orderly sequence and a largely dictated by genetic blueprints which produce commonalities and a growth and development	refers to specific species changes natural selection as a Revolutionary process that favours individuals or a species that are best adapted to survive and reproduce these changes are passed from one generation to the next within a species ,they are very slow
for example growth in height weight etc	a temporary change caused by brief illness will not be considered a part of development not be considered part of development	E,g children are able to sit without support by 7th month stand by 8th walk by 1 year	e.g emergence of human beings from apes took 14 million years

GROWTH	DEVELOPMENT
Growth refers to increase in physical aspects of the organisation,	1. Development refers to overall changes in the whole of the organism.
2. Growth is structural.	2. Development is functional.
3. Growth is quantitative	3. Development is qualitative.
4. Growth is cellular.	4. Development is organizational
5. Growth stops when the organisation reaches the stage of maturity.	5. Development is a life long process.
6. Growth involves body change	6. Development involves changes from origin to maturity.
7. Growth influences the process of development, but not always.	7. Development occurs without growth

FACTORS INFLUENCING DEVELOPMENT

• **Genotype: it is** actual genetic material or a person's genetic heritage

• The genetic code which predisposes a child to develop in a particular way. Genes provide a distinct blueprint and timetable for the development of an individual.

• **Phenotype** is the way an individual's genotype is expressed in observable and measurable characteristics. Phenotypes include physical traits, such as height, weight, eye and skin colour, and many of the psychological characteristics such as intelligence, creativity, and personality. These observable characteristics of an individual are the result of the interaction between the person's inherited traits and the environment.

Environmental influence (Environment plays a major role in development of child)

• if parents are good readers, they will provide the same environment to the child

• a child's own genotype impacts development of the child like being cooperative, and attentive

• Parents send children to school to develop their personality.

• besides this the child themselves choose their environment based on their preferences

Developmental tasks

A task which arises at

or

about a certain period of life of the individual's

leading to successful achievements of which lead to happiness and success.

Some tasks arise mainly as a result of **physical** maturation such as learning to walk. Others develop primarily from the **cultural** pressure of society such as learning to read: and still others grow out of personal values to read. Still others grow out of **personal** values and aspirations of the individual suggest using and preparing for a vacation

Purpose of developmental task

They serve three very useful purposes

1.They are guidelines that enable the individuals to know what Society expects of them are given ages. Parents for example can be guided in teaching the young children different skills by the knowledge that society expected children to master the skills that certain ages and that their adjustments will be greatly influenced by how successful they do so.

2. Developmental task to motivate individuals to do what social groups expects them to do at certain ages during their lives

3. Finally developmental task show individuals what lies ahead and what they will be expected to do when they reach their next stage of development.

Socio cultural factors and their impact on the development

Environmental factors are those which act upon the organism from outside and influence its structure and behaviour.

After birth the Infant is exposed to a complex external environment with variety of physical and chemical energy is as well as the social forces which arise from contact with other human beings .

The environment differs and also so the effect on different individuals within the same environment also differ .They developed different interests, attitudes and they identify themselves to different groups religious political and recreational Man's genotypes serve as potential source for the development of his behaviour. Realisation of these potentialities however depends upon the interaction of genotypes with environmental factors.

Even a child with the average potential intelligence but a fertile co- environment would do better in life if the environment is congenial, the development is positive while it takes a negative turn if the environment is unpleasant .

Role of Environment in the development of a child

Environment of the child plays a major role in the development of the child because it includes the surroundings in which the child develops various cognitive and motor skills. It also influences the physical development of the child according to the limit set by the genetic characteristics.

socio economic and cultural environment has a major role in development of child progress example a child who is sent to school is able to develop characteristics of confidence and self-Reliance more easily than a child who does not receive education does environment plays a vital role in the child development.

Business studies notes
Class XI
Topic : Public, Private and Global enterprises

PRIVATE SECTOR ENTERPRISES

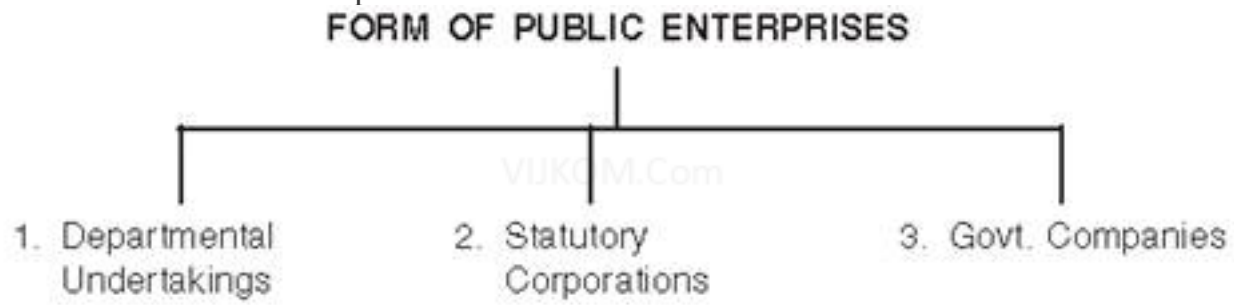
The private sector consists of business owned by individuals or a group of individuals. The varios forms of organisation are- sole proprietorship, partnership, joint hindu family, cooperative and company.

PUBLIC SECTOR ENTERPRISES

Meaning: The public sector consists of various organizations owned and managed by central or State or by both governments. The govt. participates in economic activity of the country through these enterprises.

FEATURES:

1. Capital is contributed by central or state or both govts.
2. Public welfare or Service is the main objective.
3. Management & control are in the hands of govt.
4. It is accountable to the public.



I. DEPARTMENT UNDERTAKING

These are established as departments of the ministry and are financed, managed and controlled by either central govt. or state govt.

Examples: Indian Railways, Post & Telegraph departments.

FEATURES

1. No Separate Entity: It has no Separate legal entity.

2. Finance: It is financed by annual budget allocation of the govt. and all its earnings go to govt. treasury.

3. Accounting &Audit: The govt. rules relating to audit & accounting are applicable to it.

4. Staffing: Its employees are govt. employees & are recruited & appointed as per govt. rules.

5. Accountability: These are accountable to the concerned ministry.

MERITS

1. It is more effective in achieving the objective laid down by govt. as it is under the direct control of govt.
2. It is a source of govt. income as its revenue goes to govt. treasury.

3. It is accountable to parliament for all its actions which ensures proper utilization of funds.
4. It is suitable for activities where secrecy and strict control is required like defence production.

DEMERITS

1. It suffers from interference from minister and top officials in their working.
2. It lacks flexibility which is essential for smooth operation of business.
3. It suffers from red tapism in day to day Work.
4. These organizations are usually insensitive to consumer needs and do not provide goods and adequate service to them.
5. Such organization are managed by civil servants and govt. officials who may not have the necessary expertise and experience in management.

SUITABILITY:

(i) Where full Govt. control is needed.
(ii) where secrecy is very important such as defence.

STATUTORY CORPORATIONS

It is established under a special Act passed in parliament or state legislative assembly. Its objectives, powers and functions are clearly defined in the special Act.

Examples: Unit Trust of India, Life Insurance Corporation.

FEATURES

1. It is established under a special act which defines its objects, powers and functions.
2. It has a separate legal entity.
3. Its management is vested in a Board of directors appointed or nominated by government.
4. It has its own staff, recruited and appointed as per the provisions of act.
5. This type of enterprise is usually independently financed. It obtains funds by borrowing from govt. or from public or through earnings.
6. It is not subject to same accounting & audit rules which are applicable to govt. department.

MERITS

1. **Internal Autonomy**: It enjoys a good deal of autonomy in its day to day operations and is free from political interference.
2. **Quick decisions**: It can take prompt decisions and quick actions as it is tree from the prohibitory rules of govt.
3. **Parliamentary control**: Their performance is subject to discussion in parliament which ensures proper use of public money.
4. **Efficient Management**: Their directors and top executives are professionals and experts of different fields.

DEMERITS

1. In reality, there is not much operational flexibility. It suffers from lot of political interference.
2. Usually they enjoy monopoly in their field and do not have profit motive due to

which their working turns out to be inefficient.
3. Where there is dealing with public, rampant corruption exists. Thus public corporation is suitable for undertaking requiring monopoly powers e.g. public utilities.

SUITABILITY: It is suitable for organizing public enterprise when,
(i) The enterprise requires special power under an Act.
(ii) The enterprise requires a huge amount of capital investment.

GOVERNMENT COMPANY

A government company is a company in which not less than 51% of the paid up share capital is held by the central govt. or state govt. or jointly by both.

Examples: Hindustan Insecticides Ltd., State Trading Corp. of India, Hindustan Cables Ltd.

FEATURE

1. It is registered or Incorporated under companies Act1956.
2. It has a separate legal entity.
3. Management is regulated by the provision of companies Act.
4. Employees are recruited and appointed as per the rules and regulations contained in Memorandum and Articles of association.
5. The govt. Co. obtains it funds from govt. shareholdings and other private shareholdings. It can also raise funds from capital market.

MERITS

1. It can be easily formed as per the provision of companies Act. Only an executive decision of govt. is required.
2. It enjoys autonomy in management decisions and flexibility in day to day working.
3. These are able to control the market and curb unhealthy business practices.

LIMITATIONS

1. It suffers from interference from govt. officials, ministers and politicians.
2. It evades constitutional responsibility which a company financed by the govt. should have as it is not directly answerable to parliament.
3. The board usually consists of the politicians and civil servants who are interested more in pleasing their political bosses than in efficient operation of the company.

SUITABILITY:
(i) Where the private sector is also needed along with in govt.
(ii) Where activities related to finance are to be encouraged.

CHANGING ROLE OF PUBLIC SECTOR

Public sector in India was created to achieve two types of objective – (1) to speed up the economic growth of the country and (2) to achieve a more equitable distribution of income and wealth among people. The role and importance of public sector changed with time. Its role over a period of time can be summarized as following:

1. Development of Infrastructure: At the time of independence, India suffered

from acute shortage of heavy industries such as engineering, iron and steel, oil refineries, heavy machinery etc. Because of huge investment requirement and long gestation period, private sector was not willing to enter these areas. The duty of development of basic infrastructure was assigned to public sector which it discharged quite efficiently.

2. Regional balance: Earlier, most of the development was limited to few areas like port towns. For providing employment to the people and for accelerating the economic development of backward areas many industries were set up by public sector in those areas.

3. Economies of scale: In certain industries (like Electric power plants. natural gas, petroleum etc) huge capital and large base are required to function economically. Such areas were taken up by public sector.

4. Control of Monopoly and Restrictive trade Practices – These enterprises were also established to provide competition to pvt. Sector and to check their monopolies and restrictive trade practices.

5. Import Substitution – Public enterprises were also engaged in production of capital equipments which were earlier imported from other countries. At the same time public sector Companies like STC and MMTC have played an important role in expending exports of the country. Very important role was assigned to public sector but is performance was far from satisfactory which forced govt. to do rethinking on public enterprises.

PUBLIC SECTORY REFORMS

In the industrial policy 1991, the govt. of India introduced four major reforms in public sector.

(I) Reduction in No. of industries reserved for public sector: This no. is reduced from 17 to 8 and to 3 only in 2001. These three industries are atomic energy arms and rail transport.

(II) Memorandum of Understanding (MOU): Under this govt. lays down performance target for public sector and gives greater autonomy to hold the management but held accountable for the specified results.

(III) Disinvestment: Equity shares of public sector enterprises were sold to private sector and the public. It was expected that this would lead to improved managerial performance and better financial discipline.

(IV) Restructural and Revival: All public sector sick units were referred to Board of Industrial and Financial Re-construction (BIFR). Unite which were potentially viable were restructured and which could not be reviewed were closed down by the board.

Class 11
Study Notes 13
Subject Hindi
Topic Awara Masiha

- लेखक की अपने सभी पाँच मित्रों से मित्रता बोर्डिंग में रहते हुए हुई थी। इन दो वर्षों में उनके मध्य इतनी घनिष्ठता हो गई कि जीवन भर वे साथ रहे। वे सभी हँसमुख थे। उनके इस स्वभाव के कारण वे सभी जीवनभर साथ रहें। अरशद के चेहरे में हँसी विद्यमान रहती थी। हामिद स्वभाव से गप्पी था और अब्बास जब हँसता था, तो वह दिलकश होता था। उनके खुलेपन ने उन्हें आपस में एक कर दिया। इस बंधन से वे कभी अलग नहीं हो पाए।

- लेखक के दादा की मृत्यु ने उसे बहुत दुख पहुँचाया। यह उसके लिए बड़े सदमे से कम नहीं था। वह गुमसुम हो गया और किसी से बातचीत नहीं करता था। दादा की मृत्यु के बाद वह कई दिनों तक दादा के कमरे में ही बंद रहा। दादा की पुरानी अचकन पहनकर वह उन्हीं के बिस्तर पर लेटा रहता। इस तरह वह अपने दादा के पास ही सोने का आभास करता। इन सारी बातों से पता चलता है कि उसे दादा से विशेष लगाव था।

- लेखक जब बोर्डिंग में पढ़ने जाता है, तो चित्रकला की कक्षा में उसकी यह कला उभर कर सामने आती है। एक दिन चित्रकला की कक्षा में मास्टर बच्चों को ब्लेकबोर्ड में एक बड़ी चिड़िया का चित्र बनाकर देते हैं। वे चाहते हैं कि सभी बच्चे अपनी स्लेट में उसे बनाएँ। मात्र लेखक ही उस चिड़िया की प्रतिलिपि अपनी स्लेट पर बना पाता है। पूरी कक्षा में लेखक के अतिरिक्त ऐसा कोई नहीं था, जिसने यह चित्र बनाया हो। इसके लिए उसे दस में से दस अंक मिलते हैं।

- मकबूल दुकान पर बैठने के बाद भी ड्राइंग तथा पेंटिंग करने में अपना सारा ध्यान लगाता था। वह गल्ले का जबानी हिसाब रखता था। इसके साथ वह अपने आसपास व्याप्त जीवन को 20 स्केचों में उकेरता था। इस तरह वह अपने आसपास आने-जाने तथा उठने-बैठने वाले लोगों के स्केच को बनाता था। इसमें घूँघट ओढ़े मेहतरानी, पेंचवाली पगड़ी पहने तथा गेहूँ की बोरी उठाने वाला मज़दूर, सिज़दे के निशान व दाढ़ी से युक्त पठान तथा बकरी के बच्चे का स्केच बनाया करता था। अपनी पहली ऑयल पेंटिंग भी उसने दुकान पर रहकर ही बनायी थी। उसने एक फ़िल्म सिंहगढ़ से प्रेरित होकर अपनी किताबें बेचीं और आयल पेंटिंग करना आरंभ कर दिया। इसी फिल्म ने उसे ऑयल पेंटिंग के लिए प्रेरित किया।

- प्रचार-प्रसार के पुराने तरीकों और वर्तमान तरीकों में बहुत फ़र्क आया है। अब संचार के साधन सुलभ हो गए हैं। अतः इसके माध्यम से पहुँच बहुत सरल हो गई है। इसके अतिरिक्त मनोरंजन के साधनों में भी विकास हुआ है। टी.वी. ने तो इसे बहुत सरल बना दिया है। उस समय प्रचार-प्रसार के लिए ताँगे पर फ़िल्म के पोस्टर लगाए जाते थे तथा साथ में बैंड भी बजाया जाता था। यह समूह प्रचार करने के लिए नगर-नगर घूमा करता था। सिंहगढ़ फ़िल्म का प्रचार-प्रसार ऐसे ही किया गया था। पतंग को बनाने में प्रयोग होने वाले रंगीन कागज़ पर अभिनेता तथा अभिनेत्री की तस्वीर छापी जाती थी। यह घर-घर में बाँटा जाता था। आज टी.वी., सिनेमाघरों, समाचार-पत्र, इंटरनेट, होर्डिंग बोर्ड के माध्यम से इस प्रकार का प्रचार किया जाता है। बस इसके लिए थोड़ा पैसा अधिक लगता है लेकिन सारा कार्य समय पर हो जाता है। कार्यक्रम आयोजक इस प्रचार की ज़िम्मेदारी लेते हैं। इसके लिए घर-घर जाने की आवश्यकता नहीं पड़ती है। यह आधुनिकता की देन है।

- कला के प्रति लोगों का नज़रिया अब बहुत बदला है। अब लोग कला की कद्र अधिक करते हैं। ऐसा नहीं है कि पहले लोग कला की कद्र नहीं करते थे। लेकिन पहले यह एक वर्ग तक सीमित था। राजा-महाराजाओं व अंग्रेज़ीं अफसरों आदि की दीवारों की शोभा बढ़ाने का कार्य करता था। लेकिन समय बदला है। आज कला तथा कलाकार का सम्मान किया जाता है। अब तो शिक्षा में भी इसे अभिन्न बना दिया गया है। आज यह जीविका का मज़बूत साधन है। विभिन्न स्थानों पर कलाकार आज इसके माध्यम से पैसा तथा नाम कमा रहे हैं। आम आदमी भी इसमें

रुचि रखता है। वह बेशक प्रसिद्ध कलाकारों के चित्र नहीं लगा पाए परन्तु उनकी प्रतिलिपि उसके दीवारों की शोभा अवश्य बढ़ाते हैं। वह जानता है कि इनका क्या मूल्य है। इस आधार पर हम कह सकते हैं कि कला के प्रति लोगों का नज़रिया अब पहले जैसा नहीं है।

- इस पाठ में मकबूल के पिता के व्यक्तित्व की निम्नलिखित बातें उभरकर आई हैं-
- मकबूल के पिता ने देखा कि दादा की मृत्यु के दुख से उनका बेटा निकल नहीं पा रहा है। उन्होंने उसके साथ सख्ती से काम नहीं लिया। उन्होंने उसका दाखिला बोर्डिंग में करवा दिया। इस परिवर्तन ने लेखक को दादा के दुख को भुलाने में सहायता की। इससे पता चलता है कि वह एक समझदार और पुत्र से प्रेम करने वाले पिता थे।

- अपने बेटे की प्रतिभा को उन्होंने नष्ट नहीं होने दिया। उसको पूरा समर्थन दिया। बेटे की कला देखकर वह उसके कायल हो गए और बेन्द्रे साहब के कहने से ही उसके लिए ऑयल पेंटिंग का सामान मँगवा दिया। इससे पता चलता है कि वह कला के पारखी और योग्यता को पहचानने वाले इंसान थे।

- उन्होंने मकबूल के भविष्य का सोचकर उसे बढ़ावा दिया। इसके लिए उन्होंने अपने पारिवारिक संबंधों की परवाह नहीं की। इससे पता चलता है कि वह आगे की सोचते थे।

East Point School
Study Notes
Class XI (2021– 22)
Geography

Chapter – Minerals and Rocks

About 98 per cent of the total crust of the earth is composed of eight elements like oxygen, silicon, aluminium, iron, calcium, sodium, potassium and magnesium. Thus, a mineral is a naturally occurring organic and inorganic substance, having an orderly atomic structure and a definite chemical composition and physical properties.

The basic source of all minerals is the hot magma in the interior of the earth. When magma cools, crystals of minerals appear and a systematic series of minerals are formed in sequence to solidify so as to form rocks.

Some important minerals in terms of their nature and physical characteristics is given below:-

(i) **External crystal form** — determined by internal arrangement of the molecules.

(ii) **Cleavage** — tendency to break in given directions producing relatively plane surfaces — result of internal arrangement of the molecules.

(iii) **Fracture** — internal molecular arrangement so complex there are no planes of molecules; the crystal will break in an irregular manner, not along planes of cleavage.

(iv) **Lustre** — appearance of a material without regard to colour.

(v) **Colour** — some minerals have characteristic colour determined by their molecular structure and some minerals are coloured by impurities. For example, because of impurities quartz may be white, green, red, yellow etc.

(vi) **Streak** — colour of the ground powder of any mineral.

(vii) **Transparency** — transparent: light rays pass through so that objects can be seen plainly; translucent — light rays pass through but will get diffused so that objects cannot be seen; opaque — light will not pass at all.

There are many different kinds of rocks which are grouped under three families on the basis of their mode of formation. They are:-

► Igneous Rocks

As igneous rocks form out of magma and lava from the interior of the earth, they are known as primary rocks. The igneous rocks are formed when magma cools and solidifies. The process of cooling and solidification can happen in the earth's crust or on the surface of the earth.

Igneous rocks are classified based on texture. If molten material is cooled slowly at great depths, mineral grains may be very large. Sudden cooling (at the surface) results in small and smooth grains. Intermediate conditions of cooling would result in intermediate sizes of grains making up igneous rocks.

Granite, gabbro, basalt are some of the examples of igneous rocks.

► Sedimentary Rocks

The word 'sedimentary' is derived from the Latin word sedimentum, which means settling. Rocks of the earth's surface are exposed to denudational agents and are broken up into various sizes of fragments. Such fragments are transported by different exogenous agencies and deposited. These deposits through compaction turn into rocks. This process is called lithification.

Depending upon the mode of formation, sedimentary rocks are classified into three major groups

(i) Mechanically formed — sandstone, conglomerate, limestone, shale, loess etc.

(ii) Organically formed — geyserite, chalk, limestone, coal etc.

(iii) Chemically formed —chert, limestone, halite, potash etc.

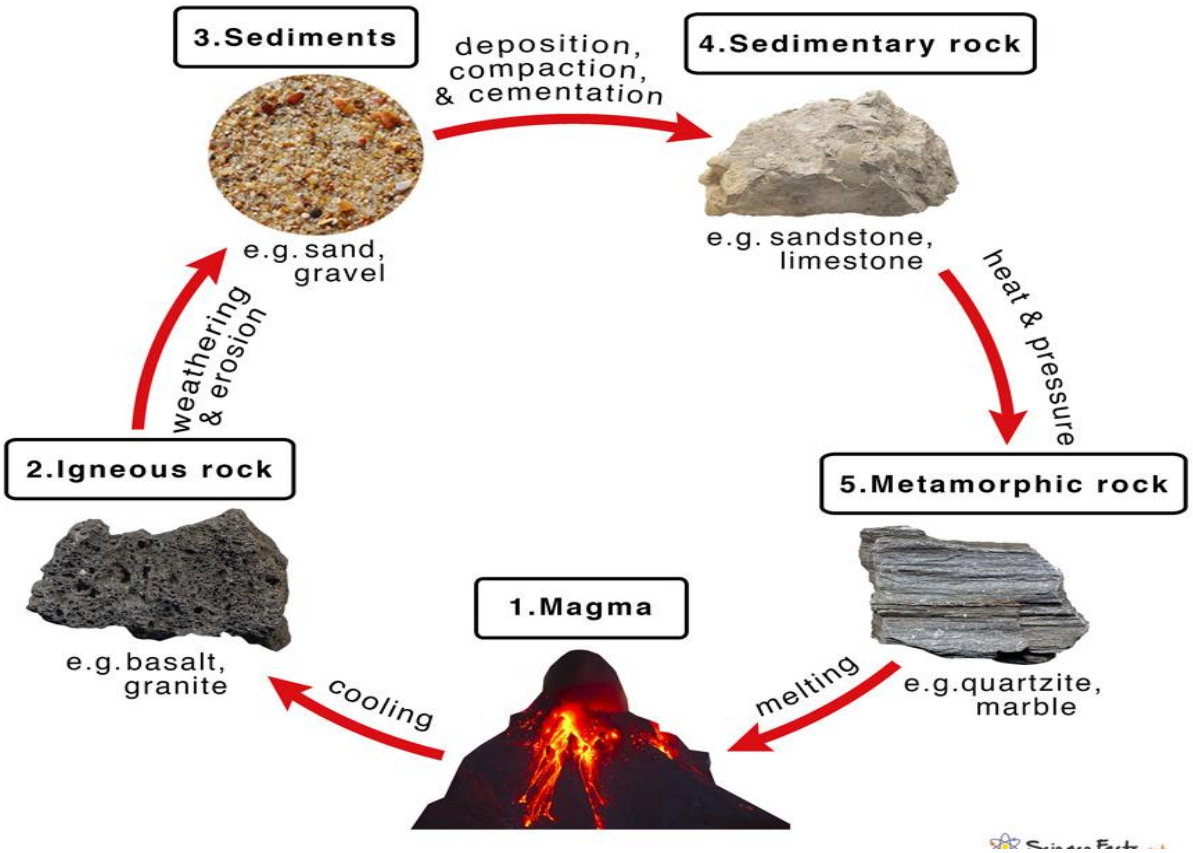
► Metamorphic Rocks

The word metamorphic means 'change of form'. These rocks form under the action of pressure, volume and temperature (PVT) changes. Metamorphism occurs when rocks are forced down to lower levels by tectonic processes or when molten magma rising through the crust comes in contact with the crustal rocks or the underlying rocks are subjected to great amounts of pressure by overlying rocks.

Metamorphism is a process by which already consolidated rocks undergo recrystallization and reorganisation of materials within original rocks.

Rock Cycle

Rock cycle is a continuous process through which old rocks are transformed into new ones. Igneous rocks are primary rocks and other rocks (sedimentary and metamorphic) form from these primary rocks. Igneous rocks can be changed into metamorphic rocks. The fragments derived out of igneous and metamorphic rocks form into sedimentary rocks. Sedimentary rocks themselves can turn into fragments and the fragments can be a source for formation of sedimentary rocks. The crustal rocks (igneous, metamorphic and sedimentary) once formed may be carried down into the mantle (interior of the earth) through subduction process and the same melt down due to increase in temperature in the interior and turn into molten magma, the original source for igneous rocks.



East Point School

AND STUDY NOTES

Class: - XI (2021-22)

Subject: ___Maths___

Study Note- 9

Date: 13/08/2021

SEQUENCE AND SERIES

Geometric Progression (GP)

A sequence in which the ratio of two consecutive terms is constant is called geometric progression. The constant ratio is called common ratio(r).

i.e. $r = a_{n+1}a_n, \forall\ n > 1$

Properties of Geometric Progression

If a is the first term and r is the common ratio, then the general term or nth term of GP is $a_n = ar^{n-1}$

nth term of a GP from the end is $a'_n = 1r_{n-1}$, l = last term

If all the terms of GP be multiplied or divided by same non-zero constant, then the resulting sequence is a GP with the same common ratio.

The reciprocal terms of a given GP form a GP.

If each term of a GP be raised to some power, the resulting sequence also forms a GP

If a, b and c are three consecutive terms of a GP then $b^2 = ac$.

Any three terms can be taken in GP as ar, a and ar and any four terms can be taken in GP as ar^3, ar, ar and ar^3.

Sum of n Terms of a G.P

Sum of n terms of a G.P is given by

$$S_n = \begin{cases} a\dfrac{(1-r^n)}{1-r}, & \text{if } |r|<1 \\ a\dfrac{(r^n-1)}{r-1}, & \text{if } |r|>1 \\ a_n, & \text{if } |r|=1 \end{cases}$$

Sum of an infinite G.P is given by

$$S_\infty = \frac{a}{1-r}, |r|<1 \Rightarrow S_\infty = \infty, |r| \geq 1$$

Geometric Mean (GM)

If a, G and b are in GR then G is called the geometric mean of a and b and is given by $G = \sqrt{(ab)}$.

If $a, G_1, G_2, G_3, \ldots. G_n, b$ are in GP then $G_1, G_2, G_3, \ldots\ldots G_n$ are in GM's between a and b, then common ratio $r = \left(\frac{b}{a}\right)_{1n+1}$

If $a_1, a_2, a_3, \ldots, a_n$ are n numbers are non-zero and non-negative, then their GM is given by $GM = (a_1 . a_2 . a_3 \ldots a_n)^{1/n}$

Product of n GM is $G_1 \times G_2 \times G_3 \times \ldots \times G_n = G_n = (ab)_{n2}$

Important Results on the Sum of Special Sequences

Sum of first n natural numbers is

$\Sigma n = 1 + 2 + 3 + \ldots + n = n(n+1)2$

Sum of squares of first n natural numbers is

$\Sigma n^2 = 1^2 + 2^2 + 3^2 + \ldots + n^2 = n(n+1)(2n+1)6$

Sum of cubes of first n natural numbers is

$\Sigma n^3 = 1^3 + 2^3 + 3^3 + .. + n^3 = \left(n(n+1)(2n+1)6\right)2$

Classification of Elements and Periodicity in Properties

Introduction

- The periodic table is a remarkable representation of chemical elements arranged in groups.
- At present, 118 elements form a large number of compounds.

Need to Classify Elements

- Elements are the basic units of all types of matter. Classification of elements was necessary to ease the difficulty of individually studying the chemistry of 118 elements.
- Classification of elements leads to a convenient way of studying elements and the compounds formed from them as a family or group with similar trends or properties.

History of Periodic Classification

- Scientists have always tried to systematise the knowledge about the elements through their observations and experiments.

1) **Döbereiner's Triads/Law of Triads**

   In each triad, the middle element had both atomic weight and properties roughly equal to the average of the other two elements of the triad.

   Limitation

   Döbereiner's law of triads seemed to work for a few elements and hence was dismissed.

2) **Newlands' Law of Octaves**

- In 1865, **John Alexander Newlands**, an English scientist, arranged the elements in the increasing order of their atomic weights and observed that every eighth element beginning from any element resembles the first element in its physical and chemical properties. This was known as **Newlands' law of octaves**.
- The relationship was just like every eighth note which resembles the first in the octaves of music.

Limitation

i) Newlands' law of octaves seemed to be true only for elements up to calcium and failed in case of elements of higher atomic weights (heavier elements).

ii) The discovery of inert/noble gases gave a large setback to the law as these gases were found to be quite different from other known elements and did not obey the law of octaves.

3) **Dmitri Ivanovich Mendeleev**

- The Russian chemist **Dmitri Ivanovich Mendeleev** arranged elements in the increasing order of their atomic masses.
- He stated that the properties of elements are periodic functions of their atomic masses (atomic weights).

Main Features of Mendeleev's Periodic Table

- Mendeleev arranged elements in horizontal rows and vertical columns of a table in order of their increasing atomic weights.
- The elements with similar properties occupied the same vertical column or group.
- Some elements did not fit in with Mendeleev's scheme of classification, so he ignored the order of atomic weights and placed the elements with similar properties together.
- Nickel with lower atomic weight (58.71) was placed after Cobalt with higher atomic weight (58.93) to fulfil the need of grouping the elements with similar properties.
- He proposed that some elements were still undiscovered.
- He left the gap under Boron, Aluminium and Silicon and called these elements as **Eka-Boron**, **Eka-Aluminium** and **Eka-Silicon**, respectively.
- The properties of Eka-Boron, Eka-Aluminium and Eka-Silicon after their discovery were found to be similar to the properties of Scandium, Gallium and Germanium, respectively.

Limitation

i) The isotopes of all elements posed a challenge to Mendeleev's periodic law.

ii) Atomic masses do not increase in a regular manner from one element to the next. So, it was not possible to predict how many elements could be discovered between two elements.

Modern Periodic Law

- In 1913, the English physicist **Henry Moseley** showed that the atomic number is a more fundamental property of an element than its atomic mass.
- The Modern Periodic Law: The physical and chemical properties of elements are periodic functions of their atomic numbers.

Present Form/Long Form of the Periodic Table

- In this periodic table, elements are arranged in their increasing order of atomic numbers.

Structural Features of the Present/Long Form of the Periodic Table

- Long form of the periodic table consists of horizontal rows and vertical columns.
- Horizontal rows are called **periods,** while vertical columns are called **groups** or **families**.

Periods

- The long form of the periodic table consists of a total of seven periods.
- The number of shells present in an atom determines its period.

Example: Elements of period one have one shell, elements of period two have two shells and elements of period three have three shells and so on.

1) The first period contains only two elements each (atomic numbers 1 and 2). It is the shortest period.
2) The second and third periods contain eight elements each (atomic numbers 3–10 in the second and atomic numbers 11–18 in the third period). These are short periods.
3) The third period elements—Na, Mg, Al, Si, P, S, Cl—summaries the properties of their respective groups and are called **typical elements**.
4) The fourth and fifth periods contain eighteen elements each (atomic numbers 19–36 in the fourth period and atomic numbers 37–54 in the fifth period). These are long periods.
5) The sixth period contains 32 elements (atomic numbers 55–86). It is the longest period.
6) The seventh period (atomic number 87 onwards) is an incomplete period and contains 23 elements.
7) In Group 3 of the sixth period, there is a set of elements with atomic numbers 57–71 (La–Lu) beginning with lanthanum (La-57). They are known as **lanthanides** (rare earth elements).
8) In Group 3 of the seventh period, there is a set of elements with atomic numbers 89–103 (Ac–Lr) beginning with actinium (Ac-89). They are known as **actinides** (radioactive elements).

Groups

- The modern periodic table has 18 vertical columns.
- They are shown as groups arranged from left to right in the order: IA, IIA, IIIB, IVB, VB, VIB, VIIB, VIII (three columns), IB, IIB, IIIA, IVA, VA, VIA, VIIA and zero.
- A **group** is determined by the number of electrons present in the outermost shell.

Group 1: **Alkali metals:** They form strong alkalis with water.
Group 2: **Alkaline earth metals:** They form weaker alkalis as compared to Group 1.
Group 13: **Boron family:** Boron is the first member of the group.
Group 14: **Carbon family:** Carbon is the first member of the group.
Group 15: **Nitrogen family**
Group 16: Oxygen family: Also known as **chalcogens** (ore-forming).
Group 17: **Halogen family:** The elements of this group form salts.
Group 18: (Zero group): Elements of this group are called **noble gases or inert gases.** These elements have their outermost orbit complete. Because of a stable electronic configuration, they hardly react with other elements.

Nomenclature of Elements with Atomic Numbers (Z) > 100

Digits present in atomic number	Numerical root	Abbreviation
0	nil	n
1	un	u
2	bi	b
3	tri	t
4	quad	q
5	pent	p
6	hex	h
7	sept	s
8	oct	o
9	enn	e

Examples:

1) **The systematic IUPAC names of the element with Z = 106 can be derived as follows:**
   - The atomic number Z = 106 consists of digits 1, 0 and 6.

EAST POINT SCHOOL

SESSION-2020-21

STUDY MATERIAL

SUBJECT: INFORMATICS PRACTICES(065)

CLASS-XI

- **CHAPTERS INCLUDED:**

  CHAPTER 1: GETTING STARTED WIYH PYTHON

  CHAPTER 2: PYTHON FUNDAMENTALS

Chapter 2: Getting Started With Python

Introduction:

Python is a widely used programming language. It was created by Guido van Rossum, and released in 1991.

The language is named after the BBC show "Monty Python"s Flying Circus" and has nothing to do with reptiles.
Python is a high-level, dynamically typed programming language. Python code is often said to be almost like pseudo code (similar to programming code), since it allows you to express very powerful ideas in very few lines of code while being very readable.

Features of python:

- Easy to use and Expressive language – Due to simple syntax rule less code to be written as it itself express the purpose of the code.
- Interpreted language – Code execution & interpretation line by line
- Cross-platform language – It can run on windows, Linux, Macintosh etc. equally and making it portable.
- Expressive language –Multi Paradigm programing language (Object Oriented Programming, Procedural etc.)
- Completeness – Support wide range of libraries.
- Free & Open Source – Can be downloaded freely and source code can be modified for improvement
- It is case sensitive i.e lower case and uppercase alphabets are treated differently (like „a" is different from „A"

Applications of Python:

- Python can be used on a server to create web applications.
- Python can be used for software development.
- Python can connect to database systems and access data.
- Python can be used to handle big data and perform complex mathematics.
- It is extensively used for data science and machine learning programming.

Execution of a program in various languages: As computer understands only binary signals and any program written in high level language (c,c++,Python,java,etc) is required to be translated into machine form .There are language processors that

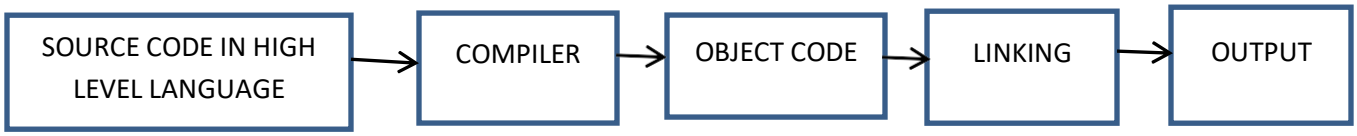
converts a source written in high level language into machine code for execution by hardware.

There are two main language processor used with different approach:

- Compiler
- interpreter

Interpreter	**Compiler**
Translates program one statement at a time.	Scans the entire program and translates it as a whole into machine code.
It takes less amount of time to analyze the source code but the overall execution time is slower.	It takes large amount of time to analyze the source code but the overall execution time is comparatively faster.
No intermediate object code is generated, hence are memory efficient.	Generates intermediate object code which further requires linking, hence requires more memory.
Continues translating the program until the first error is met, in which case it stops. Hence debugging is easy.	It generates the error message only after scanning the whole program. Hence debugging is comparatively hard.
Programming language like **Python**, Ruby use interpreters.	Programming language like C, C++ use compilers.

Case Of Interpreter



Case Of Compiler

Working with python:

We can use various software distribution(collection of packages) to use python for programming. Following are some popular software package distribution:

- Cpython distribution : It is the provided by the python software foundation.
- Anaconda distribution: It comes with preloaded packages and libraries.

You can use many more Interactive environment for rapid program development, after installing python. Following are some example of IDE"s

- IDLE: comes with default python installation.
- Spyder IDE: available with Anaconda distribution
- pyCharm IDE, Pyscripter IDE, etc.

(Integreted Development EnvironMent)IDE: Provides many user friendly interactive tools for rapid software development.

Install and use python(Cpython Distribution):

- As python is open source you can download it freely from www.python.org and install it on your system.
- It comes with following:
  - Python Interpreter
  - Python IDLE
  - Pip (package installer)

IDLE: IDLE is Python"s **I**ntegrated **D**evelopment and **L**earning **E**nvironment for writing python statement and programs using limited GUI tools.

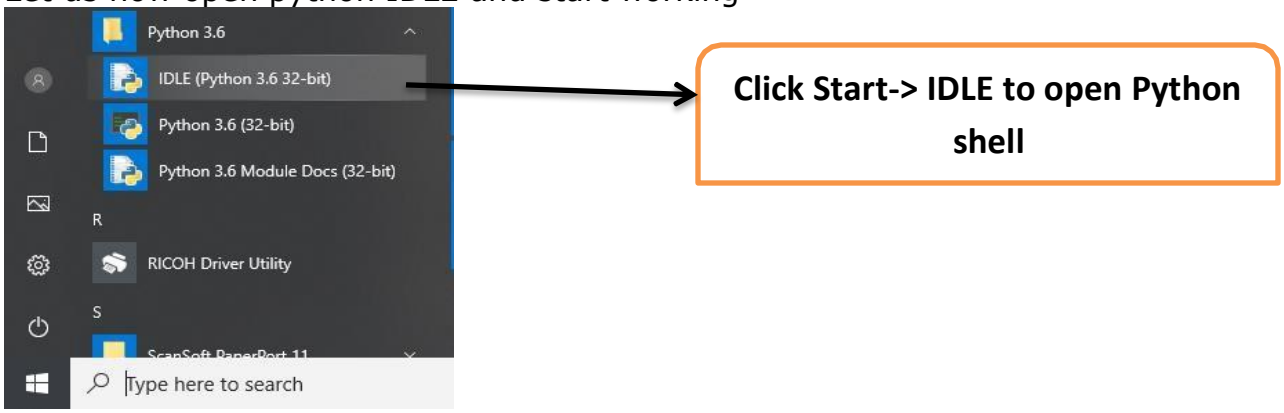
You can work in Python IDLE in two ways:

- Interactive mode: Writing one line command at a time and interpreting it immediately by pressing enter key.

- Script mode: It allows user to write one or more python statements and saving them in the form of a program file(like abc.py).

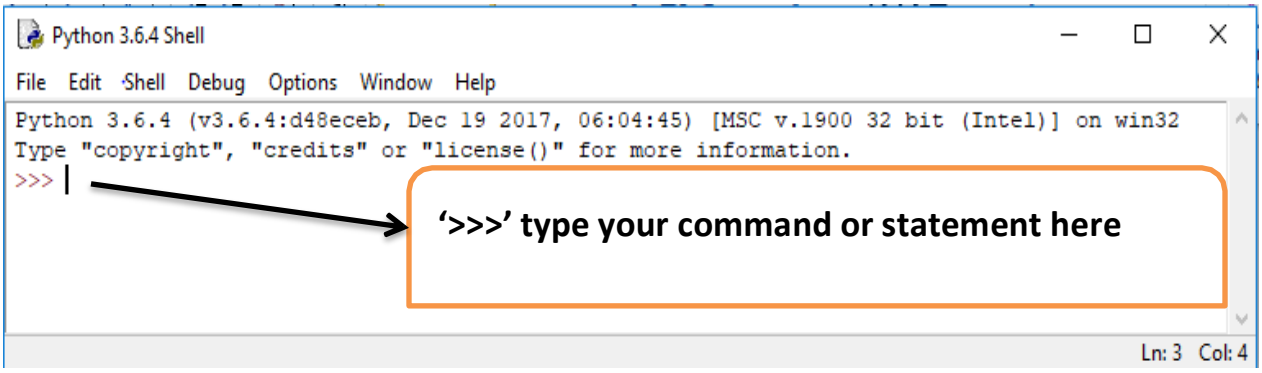
Interactive mode:

„>>>". This is a primary prompt indicating that the interpreter is expecting a python command. There is secondary prompt also which is „…" indicating that interpreter is waiting for additional input to complete the current statement.
Let us now open python IDLE and start working

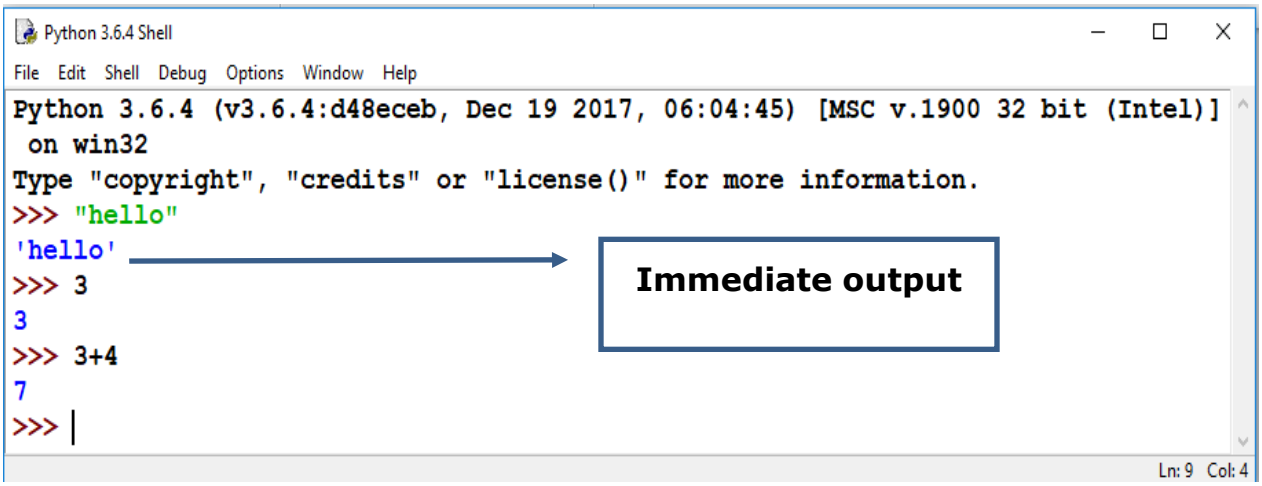


As you open Python IDLE it opens Python shell.

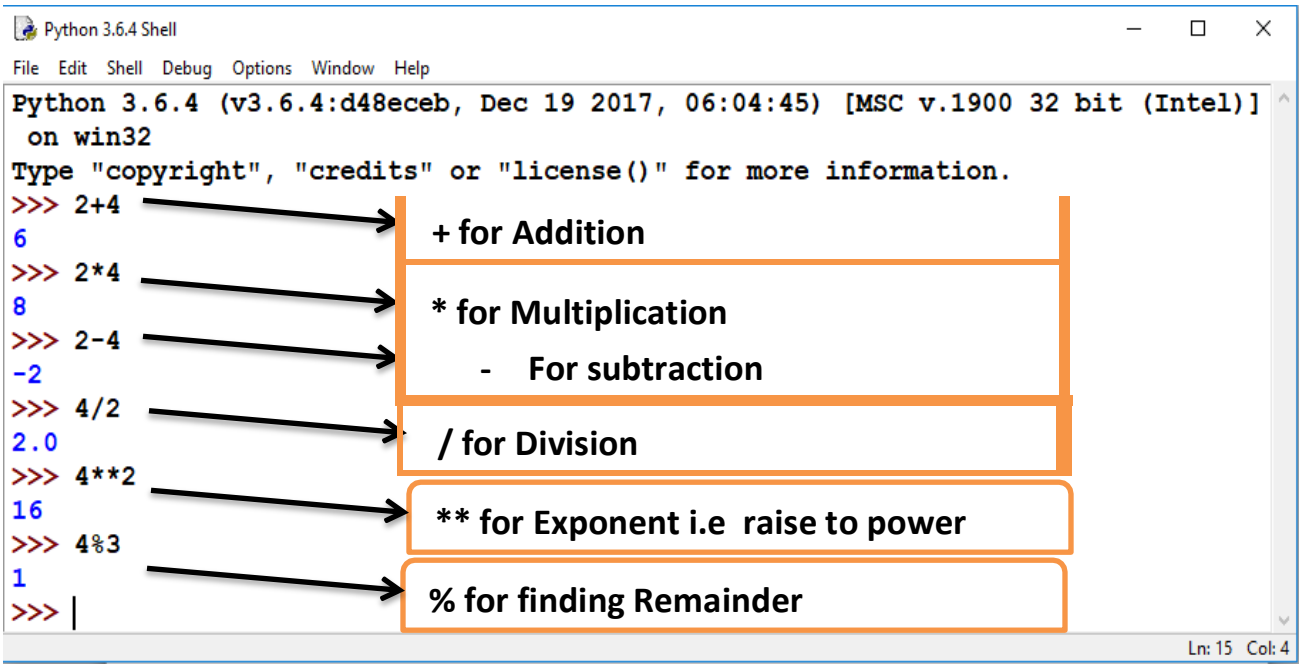
Python shell displays the prompt **>>>** and is ready to accept command from user.



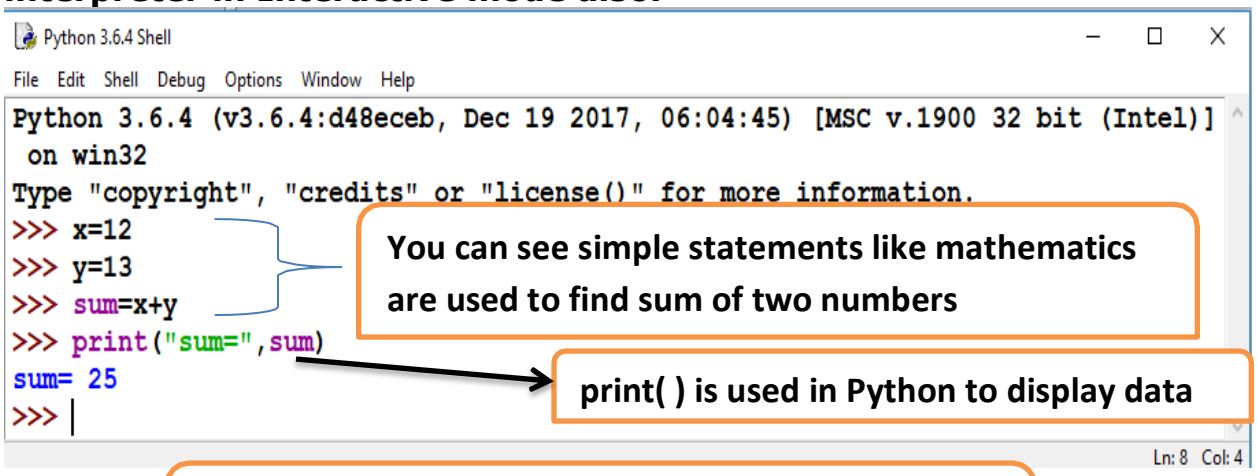
Type some expression and see immediate response by Python Interpreter



Using python as a calculator (Interactive mode)



It is also possible to get a sequence of instructions executed through interpreter in Interactive mode also.

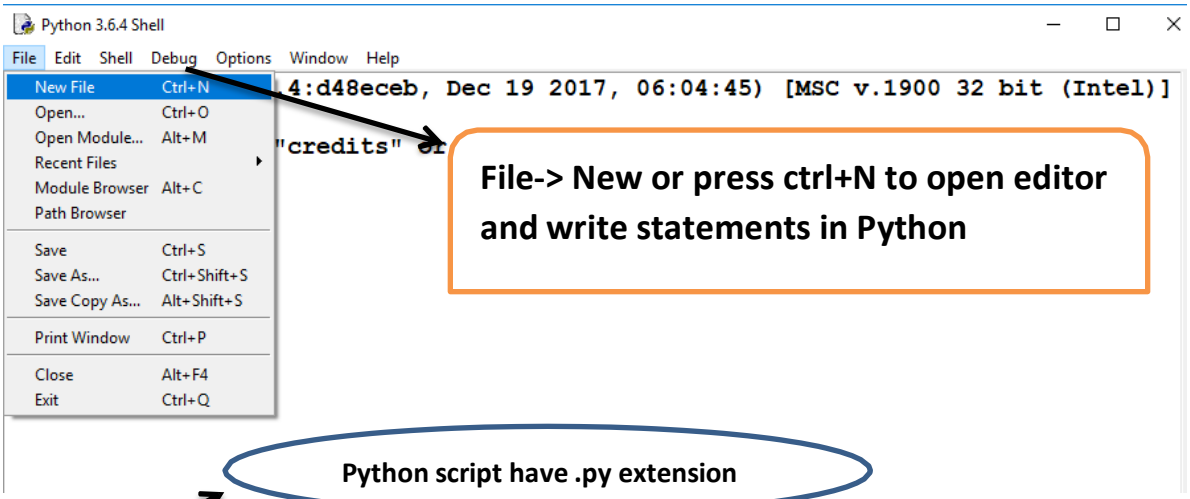


In the next chapters you will get to know about Python programming fundamentals

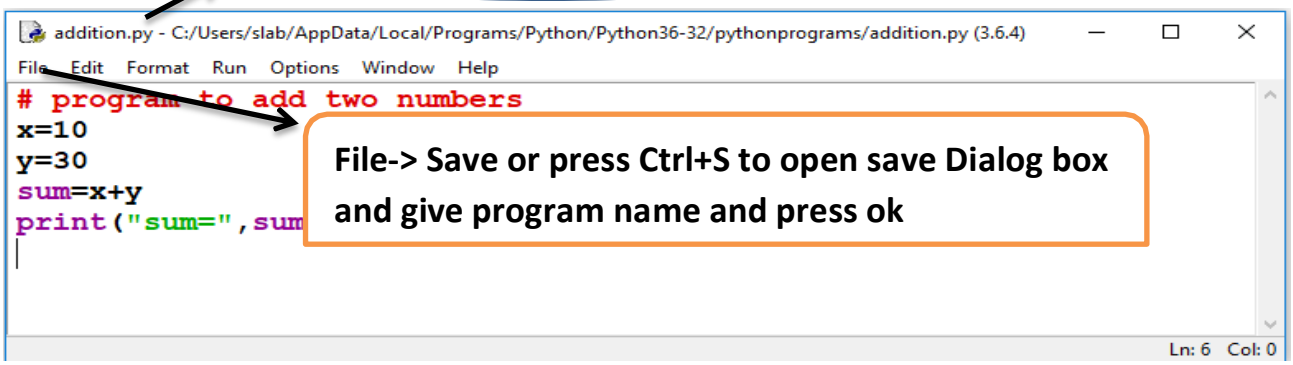
Note: Above program is not saved for future modification.

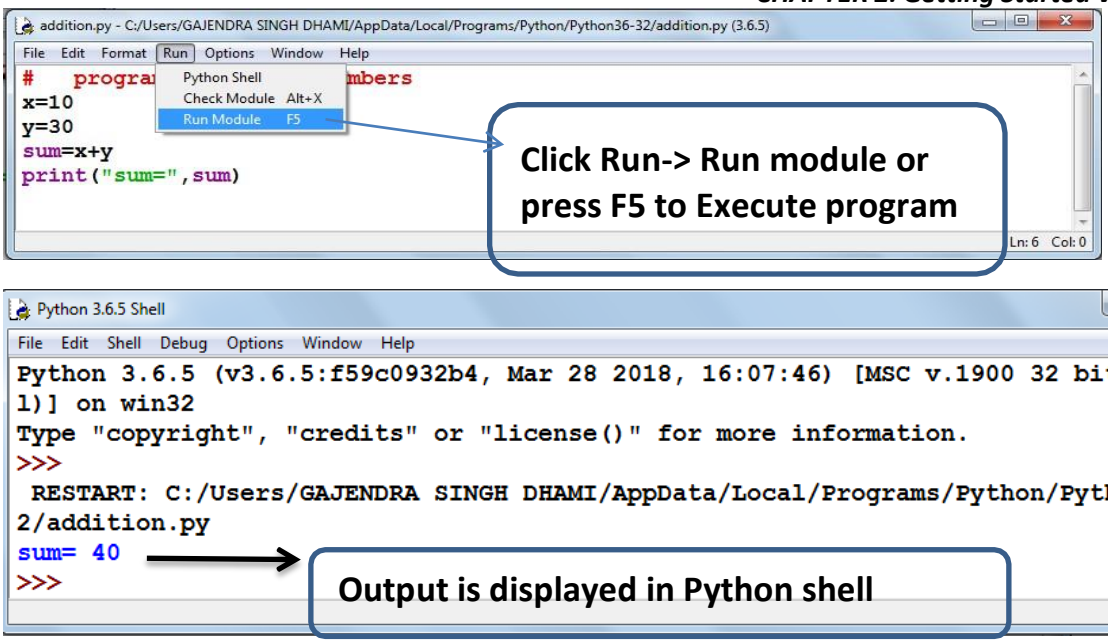
<u>Use script mode for program naming and saving it for future modification</u>

Script mode: In script mode, we type Python program in a file and then use the interpreter to execute the content from the file.



Python script have .py extension





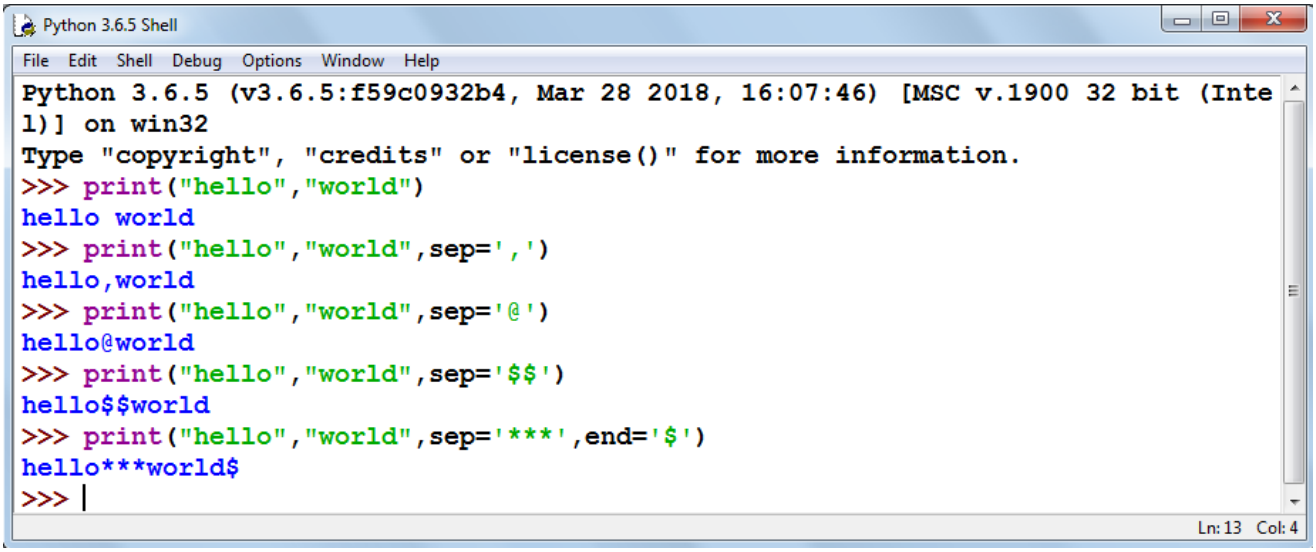
Understanding print(): it is one of the important statement that is used to display the data on screen.

Syntax:

print(value1,value2,…,sep=' `',end='\n')

- **value1**,**value2**,.. : one or more values(eg. Message,variable,expression,literals etc)
- **sep**: reserved word that specifies the separator type, used to separate values (**when no separator is given by user, space ` ` will be used as default**)
- **end**: it sets the character to end the print statement; user can provide any character (**new line'\n' is by default)**

Let us understand print()using following examples:



Assignments:

1. Write four important features of python.
2. Name the creator of Python.
3. Write some areas where Python applications are used.
4. Define IDE. Give difference between IDLE and Spyder IDE's.
5. Explain cross platform and open source features of Python.
6. What does Multi paradigm means in programming?
7. Give difference between Compiler and Interpreter.
8. Give advantage of script mode compared to Interactive mode.

9. Fill in the blanks:
    a. _____is the default IDE for Python.
    b. Every Python script has_____extension.
    c. Spyder IDE is part of_____distribution package.
    d. _____feature of Python makes it portable to various operatingsystems.
    e. _____statement is used to print data on output window.
    f. In_____mode we can save program.
    g. Python_____is the interface that accepts commands from user.
10. Write a statement to display the following outputs:
    a. Welcome***to###Lucknow&&&
    b. 3…4…5…6,,,
    c. Write a script to display following:

        Monty
        Python
        Flying
        Circus
11. What output the following statements will generate on output window?a. >>>4+6/3-3
    b. >>>3**3
    c. >>>2**2**4
12. Give the output of following

    script:R=12

    W=

    15

    S=

    W+

R

print(W,"+",R,"=",S,sep='%',end='!!!')

CHAPTER – 3 : PYTHON FUNDAMENTALS

Python Character Set

Python uses the character set to declare identifier as given below:

- Letters A-Z , a-z
- Digits 0-9
- Special Symbols Space + - * / ^ \ ( ) [ ] { } = != < > . „ " $, ; : % ! & ? _ # <= >= @
- White Spaces Blank spaces, horizontal tab, carriage return newline, form feed etc.
- Other characters: Python can process all characters of ASCII and UNICODE.

Tokens in Python

The smallest individual unit of the program is known as Token.There are five types of Tokens in Python:

1. Keywords
2. Identifiers
3. Literals
4. Delimiters
5. Operators

Keywords

- Keywords are those words which provides a special meaning to interpreter.
- These are reserved for specific functioning.
- These can not be used as identifiers, variable name or any other purpose.
- Available keywords in Python are-

False	class	finally	is	return
None	continue	for	lambda	try
True	def	from	nonlocal	while
and	del	global	not	with
as	elif	if	or	yield
assert	else	import	pass	
break	except	in	raise	

Identifiers

These are building blocks of a program and are used to give names to different parts/blocks of a program like - variable, objects, classes,functions.

- An identifier may be a combination of letters and numbers.
- An identifier must begin with an alphabet or an underscore(_).Subsequent letters may be numbers(0-9).
- Python is case sensitive. Uppercase characters are distinct from lowercase characters (P and p are different for interpreter).
- Length of an Identifier is unlimited.
- Keywords can not be used as an identifier.
- Space and special symbols are not permitted in an identifier name except an underscore(_) sign.
- Some valid identifiers are –
  – Myfile, Date9_7_17, Z2T0Z9, _DS, _CHK FILE13.
- Some invald identifiers are –
  – DATA-REC, 29COLOR, break, My.File.

Literals / Values

- Literals are often called Constant Values.
- Python permits following types of literals –
  - **String literals - “Pankaj”**
  - **Numeric literals – 10, 13.5, 3+5i**
  - **Boolean literals – True or False**
  - **Special Literal None**
  - **Literal collections**

String Literals

- String Literal is a sequence of characters that can be a combination of letters, numbers and special symbols, enclosed in quotation marks, single, double or triple(„ „or “ “ or “”” “”””).

- In python, string is of 2 types-
  – Single line string
    - Text = “Hello World” or Text = “Hello World

– Multi line string
  - Text = “hello\ or Text = “””hello
    World” world “””

Numeric Literals

- Numeric values can be of three types -

– int (signed integers)
  - Decimal Integer Literals – 10, 17, 210 etc.
  - Octal Integer Literals - 0o17, 0o217 etc.
  - Hexadecimal Integer Literals – 0x14, 0x2A4, 0xABD etc.

– float (floating point real value)
  - Fractional Form – 2.0, 17.5 -13.5, -.00015 etc.
  - Exponent Form - -1.7E+8, .25E-4 etc.

– complex (complex numbers)
  - 3+5i etc.

Boolean Literals

- It can contain either of only two values – True or False

  A= True
  B=False

Special Literals

- None, which means nothing (no value).

  X = None

Delimiters

Delimiters are symbols that perform three special roles in python like grouping, punctuation and assignment/ binging of objects to names. Grouping and punctuation delimiters are all written as one character symbols.

Delimiters	Classification
( ) { } [ ]	Grouping

. , ; : @	Punctuation
= += - = *= /= etc	Arithmetic assignments
&= != ^= <<= >>=	Bitwise assignment binding

Operators

Operators are special symbols which represents computation. They are applied on operand(s), which can be values or variables. Same operator can behave differently on different data types. Operators when applied on operands form an expression. Operators are categorized as Arithmetic, Relational, Logical and Assignment. Value and variables when used with operator are known as operands.

Types of Operators

- Python supports following types of operators -

– **Unary Operator**

- Unary plus (+)
- Unary Minus (-)
- Bitwise complement (~)
- Logical Negation (not)

– Binary Operator

- Arithmetic operator (+, -, *, /, %, **, //)
- Relational Operator(<, >, <=, >=, ==, !=)
- Logical Operator (and, or)
- Assigment Operator (=, /=, +=, -=, *=, %=, **=, //=)
- Bitwise Operator (& bitwise and, ^ bitwise xor, | bitwise or)
- Shift operator (<< shift left, >> shift right)
- Identity Operator (is, is not)
- Membership Operator (in, not in)

Arithmetic Operators:

Symbol	Description	Example 1	Example 2
+	Addition	>>>55+45 100	>>> 'Good' + 'Morning' GoodMorning
-	Subtraction	>>>55-45 10	>>>30-80 -50
*	Multiplication	>>>55*45 2475	>>> 'Good'* 3 GoodGoodGood
/	Division	>>>17/5 3 >>>17/5.0 3.4 >>> 17.0/5 3.4	>>>28/3 9
%	Remainder/ Modulo	>>>17%5 2	>>> 23%2 1
**	Exponentiation	>>>2**3 8 >>>16**.5 4.0	>>>2**8 256
//	Integer Division	>>>7.0//2 3.0	>>>3/ / 2 1

Relational Operators

Symbol	Description	Example 1	Example 2

<	Less than	>>>7<10
		True
		>>> 7<5
		False
		>>> 7<10<15
		True
		>>>7<10 and 10<15
		True
			>>>'Hello'< 'Goodbye'
			False
			>>>'Goodbye'< 'Hello'
			True

>	Greater than	>>>7>5 True >>>10<10 False	>>>'Hello'> 'Goodbye' True >>>'Goodbye'> 'Hello' False
<=	less than equal to	>>> 2<=5	>>>'Hello'<= 'Goodbye'
>=	greater than equal to	>>>10>=10 True >>>10>=12 False	>>>'Hello'>= 'Goodbye' True >>>'Goodbye' >= 'Hello' False
! =, <>	not equal to	>>>10!=11 True >>>10!=10 False	>>>'Hello'!= 'HELLO' True >>> 'Hello' != 'Hello' False
==	equal to	>>>10==10 True >>>10==11 False	>>>'Hello' == 'Hello' True >>>'Hello' == 'Good Bye' False

Logical Operators

Symbol	Description
or	If any one of the operand is true, then the condition becomes true.
and	If both the operands are true, then the condition becomes true.
not	Reverses the state of operand/condition.

Assignment Operators

Assignment Operator combines the effect of arithmetic and assignment operator

Symbol	Description	Example	Explanation
=	Assigned values from right side operands to left variable	>>>x=12* >>>y='greetings'	
+=	added and assign back the result to left operand	>>>x+=2	The operand/ expression/ constant written on RHS of operator is will change the value of x to 14
-=	subtracted and assign back the result to left operand	x-=2	x will become 10
*=	multiplied and assign back the result to left operand	x*=2	x will become 24

/=	divided and assign back the result to left operand	x/=2	x will become 6
%=	taken modulus using two operands and assign the result to left operand	x%=2	x will become 0
**=	performed exponential (power) calculation on operators and assign value to the left operand	x**=2	x will become 144
//=	performed floor division on operators and assign value to the left operand	x / /= 2	x will become 6

Precedence of operator - Listed from high precedence to low precedence.

Operator	Description
**	Exponentiation (raise to the power)
+, -	unary plus and minus
*, /, %, //	Multiply, divide, modulo and floor division
+, -	Addition and subtraction
<, <=, >, >=	Comparison operators
==, !=	Equality operators
% =, / =, // =, - =, + =, * =	Assignment operators
not and or	Logical operators

East Point School

Study Notes

Class: - XI (2021-22)

Subject: Physical Education – Discipline: Science, Commerce & Humanities

Study Notes No.

Date: 13/08/2021

Adapted Physical Education

With the introduction of the Right to Education, which makes education a fundamental right of every child between the ages of 6 and 14 all children including those who are physically and mentally challenged, or afflicted with various types of disabilities and disorders, have the right to come to school to develop their abilities through the process of education. So, in addition to the regular programmes of Physical Education (PE), the schools must provide Adapted Physical Education (APE) Programmes for children who may not receive benefits from regular Physical Education Programmes. As you know, PE is important for:

1. development of gross motor and fine motor skills
2. conditioning different systems in the body
3. developing emotional health and wellbeing
4. inculcating social values and obligations

ORIGIN OF ADAPTED PHYSICAL EDUCATION

It was in 1952 that the American Association for Health, Physical Education and Recreation (AAHPER) formed a committee to define Adapted Physical Education and give direction for teachers. This committee defined Adapted Physical Education as "a diversified Programme of developmental activities, games, sports, and rhythms suited to the interests, capacities, and limitations of students with special needs who may not safely or successfully engage in unrestricted participation in the rigorous activities of the regular Physical Education Programme."

MEANING OF ADAPTED PHYSICAL EDUCATION

According to Adapted Physical Education National Standards (APENS) Adapted Physical Education is Physical Education which has been adapted or modified, so that it is as appropriate for the person with a disability it is for a person without a disability. It is basically a Physical Education Programme specially designed for differently-abled students so that physical education activities are safe, achievable, enjoyable and, therefore, a successful experience.

APE is safe and beneficial even for infants and toddlers who need early intervention services because of developmental delays in physical, cognitive, communication, social and emotional aspects. Moreover, APE is not only for differently-abled infants and students but also for the people of all ages.

SPECIAL OLYMPICS

Special Olympics is the world's largest sports organization for children and adults with intellectual disabilities and physical disabilities. It provides year-round training and competitions to 5 million athletes and Unified Sports partners in 172 countries.

Implementation of Inclusive Education in India.

In India, the number of children/persons with disabilities or special needs is really large. As a result, they have a number of problems in getting education, especially inclusive education. It is important to implement inclusive education in India not only to provide benefits of inclusion to all individuals but also to ensure optimal utilisation of resources.

Paralympics

This is similar to Olympic game for disabled sports person in 1960 first time it was organized in Rome. The head quarter of international Paralympics is situated at Bonn, Germany. The international Paralympics is responsible for organizing summer and winter Olympic games. At present it comprises of 176 National Paralympics Committees.

Deaflympics

The 'Deaflympics' are games for deaf Athletes. Previously they were called the International Games for the Deaf. These games are organised by "The International committee of sports for the Deaf" since the first event and they are sanctioned by International Olympic Committee. The deaf Olympian can't be guided by sounds for example, the starter gun, bullhorn commands or referee whistles. The Deaflympics were held in Paris in 1924 and were also the first ever international sporting events for athletes with disability. The Deaflympic Winter Games, was added in 1949. The games began as a small gathering of 148 Athletes. Now these games are grown into a global movement. To qualify for the games, athletes must have a hearing loss of at least 55db in their "better ear". Hearing aids, cochlear implant and the lake are not allowed to be used in competition. Deaflympians can't be guided by sounds so alternative methods are used to address the athletes. For example, the football referees wave a flag instead of blowing a whistle, on the track races are started by using a light, instead of using a starting pistol. Host cities (summer) Year Sobia, Bulgaria August 2013 Samsun Tunkey July 2017 Host cities (With Deaflympics) March 2015 Khanty Mansiysk Russia Torino Italy 2019.

Concept and need of Integrated Physical Education

Integrated Physical Educations using physical activities and games to teach others subjects. this is a new concept in the field of Physical Education. Research and studies have shown that integrating two or more subject at areas can stimulate the interest of students and hence promote the learning of each subject. Teachers are increasing conducting activities both side and outside the classroom to teach various concepts of Science, Social science and Mathematics. Integrated physical education is a comprehension concept. It is not only limited to physical activities, games and sports but has become a complete discipline within

the past two decades the knowledge in this field has increased tremendously. Due to research works, various subdisciplines such as sports sociology, sports Biomechanics, Sports medicine, sports pedagogy, Exercise Physiology, Sports Psychology, Sports Philosophy and sports management, etc. Integrated physical education lays emphasis on multidisciplinary learning with the integration of its subdisciplines. Integrated physical education provides opportunities for students to see new relationships, to transfer what they have learnt from are setting to the next and to reinforce learning in various ways. This knowledge of integrated physical education would be able to help in the fitness, health and wellness of all individuals. High quality physical education programmes can be prepared with the help of integrated physical education.

Concept of Inclusion

Need of Inclusion

Inclusion in physical education helps the students with disabilities to increase their social skills and in making trends. A child feels that he/she also belongs to the entire group of class so a feeling of belongingness is developed. Inclusion helps a child to increase his/her motor skills and experience success with peers. Inclusion Implementation To make inclusion work, general classroom teachers, support specialist, parents and students themselves must work together to create the best educational environment possible.

With knowledge of inclusive practices and strategies, teachers can manage, classrooms that encourage learning and discovery among all students, regardless of physical abilities. School principals must cooperate and share the message that all staff members, not just special education teachers, are expected to be involved in education children with disabilities. Inclusion also requires specially trained staff. Since classroom teachers need training and ongoing support to effectively teach many types of learners, they must meet regularly with inclusion specialists.

School Counsellor Special education counsellors work with special need children in elementary school, middle schools and high schools to ensure they have the support services they need in order to achieve their highest potential in the areas of academics, personal and social and career development.

Occupational Therapist The goods of occupational therapy for a child are to improve participation and performance of a child and all the child's "occupation" like self-care, play, school and other daily activities. The occupational therapist well assesses the child and

modify the environment, or the way of doing a task to promote a better participation and independence.

Physical Education Teacher Physical education program plays a very progressive role in improving cognitive functions and academic performance. Social skills and collaborative team work can also be enhanced through the different programs of physical education. The physical education teacher helps in executing these programs.

Physiotherapist The best-known therapist who work with children with special needs. They use exercises to help their patients and keep the best possible use of their bodies. They also try to improve breathing to prevent the development of deformities and to slowdown the detoriation caused by some progressive diseases.

Speech Therapist Speech therapist is known by many names like speech language pathologist, speech pathologist and speech teacher. They work with children with a variety of delays and disorders spanning from mild articulation delays to more complex disorders such as autism, down syndromes, hearing impairment, motor speech disorders and other developmental delays. Speech teacher helps your child with speech, talking and communication.

Special Education Teacher Special education teachers work in classrooms or resource centres that only include students with disabilities. Students with disability may attend classes with general education students also known as inclusive classrooms. special education teacher's duties vary by the type of setting they work in, student disabilities and teacher specialty.

Q.1. The head quarter of paralympics is at

(a) Paris (b) New york (c) Germany (d) Denmark

Q.2. Deaflympics started in

(a) 1924 (b) 1960 (c) 1947 (d) 2001

Q.3. Cochlear implant is not allowed in

(a) Special Olympics (b) Deaflympics (c) Asian games (d) Olympic Games

Q.4. Speech therapist helps a child in

(a) Grooming (b) Communication (c) Enhancing mobility (d) Playing

Q.5. "Let me win. But if I cannot win, let me be brave in the attempt". In which game this oath is taken?

(a) Special Olympic Bharat (b) Paralympic (c) Deaflympic (d) Asian games

Q.6. 'Spirit in motion' is the motto of

(a) Paralympic (b) Special Olympic Barat (c) Common wealth games (d) Deaflympic

Q.7. What is the motto of Deaflympic?

(a) Spirit in motion (b) Per Ludos Aequalitas (c) Cetius, Altius Fortius (d) Let me win brane in my attempt

Q.8. Inclusion is needed to....

(a) Social development of CWSN (b) To increase motion skills (c) To improve academic performance

Q.9. Name the teacher who is specially trained to work with CWSN....

(a) Physical education teacher (b) Physiotherapist (c) Principal (d) Special educator

Q.10. Whistles or guns are not used in these games...

(a) Common heath (b) Deaflympic (c) Paralympics (d) Special Olympic

ROLE OF THE 'PRIMARY MARKET'?

- The primary market provides the channel for sale of new securities.
- Primary market provides opportunity to issuers of securities; Government as well as corporates, to raise resources.
- Securities may be issued in domestic market and/or international market.

What is meant by Face Value of a share/debenture?

- The nominal or stated amount (in Rs.) assigned to a security by the issuer.
- It is also known as par value or simply par.
- For shares, it is the original cost of the stock shown on the certificate;
- For an equity share, the face value is usually a very small amount (Rs. 5, Rs. 10) and does not have much bearing on market price of the share.
- For bonds, it is the amount paid to the holder at maturity.
- Usually, Government securities and corporate bonds have a face value of Rs. 100.
- The price at which the security trades depends on the fluctuations in the interest rates in the economy.

What do you mean by the term Premium in a Security Market?

- When a security is sold above its face value, it is said to be issued at a Premium.
- For e.g. if face value of a share is Rs. 10 but it is issued at Rs. 15, it is said to be issued at premium and the amount of premium is Rs. 5.
- Normally, issues are made at premium.

What do you mean by the term Discount in a Security Market?

- When a security is sold at less than its face value, then it is said to be issued at a Discount.
- For e.g. if the face value of a debenture is Rs. 100 but it is issued at Rs. 90, then it is said to be issued at discount and the amount of discount is Rs. 10.
- While the debentures can be issued at discount, shares are not permitted to be issued at discount according to the Companies Act, 2013.

ISSUE OF SHARES

Why do companies need to issue shares to the public?

- Most companies are usually started privately by their promoters.
- However, the promoters' capital and the borrowings from banks may not be sufficient for running the business over a long term, or to expand.
- So companies invite the public to contribute towards the equity and issue shares to individual investors.
- Companies invite share capital from the public through a "*Public Issue*".
- Public issue is an offer to the public to subscribe to the share capital of a company. Once this is done, the company allots shares to the applicants as per the prescribed rules and regulations laid down by SEBI.


Issue of shares
Public
Rights
Preferential
Initial Public Offering
Follow on Offering
Offer for Sale
Fresh issue
Offer for sale
Fresh issue

KINDS OF ISSUE OF SHARES

1. **Initial Public Offering (IPO)** is when an unlisted company makes either a fresh issue of securities or an offer for sale of its existing securities or both for the first time to the public. This paves the way for listing and trading of the issuer‘s securities.

2. **A follow on public offering (Further Issue)** is when an already listed company makes either a fresh issue of securities to the public or an offer for sale to the public, through an offer document.

3. Rights Issue

- It is when a listed company proposes to issue fresh securities to its existing shareholders as on a record date.
- The rights are normally offered in a particular ratio to the number of securities held prior to the issue.
- For example, in a rights issue of 1:1, one new equity share is issued for every equity share held by the shareholders. Hence, the shareholding of the investor doubles after the rights issue.
- This route is best suited for companies who would like to raise capital without diluting (reducing) the stake of its existing shareholders.

4. A Preferential issue

- It is an issue of shares or of convertible securities by listed companies to a select group of persons.
- This is a faster way for a company to raise equity capital.

WHAT IS MEANT BY ISSUE PRICE?

- The price at which a company's shares are offered initially in the primary market is called as the Issue price.
- When they begin to be traded, the market price may be above or below the issue price.

What is meant by Market Capitalisation?

- The market value of a quoted company, which is calculated by multiplying its current share price (market price) by the number of shares in issue is called as market capitalization.
- E.g. Company A has 120 million shares in issue. The current market price is Rs. 100. The market capitalisation of company A is Rs. 12000 million.

MARKET CAPITALISATION = NO. OF SHARES IN ISSUE X MARKET PRICE

What is the difference between public issue and private placement?

- When an issue is not made to only a select set of people but is open to the general public and any other investor at large, it is a public issue.
- If the issue is made to a select set of people, it is called private placement.
- As per Companies Act, 2013, an issue becomes public if it results in allotment to 50 persons or more.

WHAT IS AN INITIAL PUBLIC OFFER (IPO)?

- An Initial Public Offer (IPO) is the selling of securities to the public in the primary market.
- It is when an unlisted company makes either a fresh issue of securities or an offer for sale of its existing securities or both for the first time to the public.
- The sale of securities can be either through book building or through normal public issue.

Who decides the price of an issue?

- The issuer in consultation with Merchant Banker shall decide the price.
- SEBI does not play any role in price fixation.
- The company and merchant bankers are however required to give full disclosures of the parameters which they had considered while deciding the issue price.
- There are two types of issues,
  1) Where company and Lead Merchant Banker fix a price (called fixed price) and
  2) Where the company and the Lead Manager (LM) stipulate a floor price or a price band and leave it to market forces to determine the final price (price discovery through book building process).
- Nowadays, all issues are normally done through the book built route. However, the fixed price route has been kept open to allow small and medium enterprises to offer shares on the SME platform of the exchanges.

What does ‘price discovery through Book Building Process’ mean?

- Book Building is basically a process used in IPOs for efficient price discovery.
- It is a mechanism where, during the period for which the IPO is open, bids are collected from investors at various prices, which are above or equal to the floor price. The offer price is determined after the bid closing date.

What is the floor price in case of book building?

- Floor price is the minimum price at which bids can be made.

What is a Price Band in a book built IPO?

- The prospectus may contain either the floor price for the securities or a price band within which the investors can bid.
- The spread between the floor and the cap of the price band shall not be more than 20%. In other words, it means that the cap should not be more than 120% of the floor price.
- The price band can have a revision and such a revision in the price band shall be widely disseminated by informing the stock exchanges, by issuing a press release and also indicating the change on the relevant website.
- In case the price band is revised, the bidding period shall be extended for a further period of 3 days, subject to the total bidding period not exceeding 10 days.

Who decides the Price Band?

- It is up to the company to decide on the price or the price band, in consultation with Merchant Bankers.

What is Cut-Off Price?

- In a Book building issue, the issuer is required to indicate either the price band or a floor price in the prospectus.
- The actual discovered issue price can be any price in the price band or any price above the floor price. This issue price is called —Cut-Off Price‖.
- The issuer and lead manager decides this after considering the book and the investors‘ appetite for the stock

What is minimum number of days for which a bid should remain open during book building?

- The Book should remain open for a minimum of 3 days.

Can open outcry system be used for book building?

- No. As per SEBI, only electronically linked transparent facility is allowed to be used in case of book building.

Can the individual investor use the book building facility to make an application?

- Yes.

How does one know if shares are allotted in an IPO/offer for sale? What is the timeframe for getting refund if shares not allotted?

- As per SEBI, the Basis of Allotment should be completed with 4 working days from the issue close date.
- As soon as the basis of allotment is completed, within a working day the details of credit to demat account / allotment advice and despatch of refund order needs to be completed.
- So an investor should know in about 5 working days time from the closure of issue, whether shares are allotted to him or not.

What is ASBA?

- ASBA means —Application Supported by Blocked Amount.
- ASBA is an application containing an authorization to block the application money in the bank account, for subscribing to an issue.
- If an investor is applying through ASBA, his application money shall be debited from the bank account only if his/her application is selected for allotment after the basis of allotment is finalized, or the issue is withdrawn/failed.
- Under ASBA facility, investors can apply in any public/ rights issues by using their bank account.
- The bank will upload the details of the application in the bidding platform.
- From 1st January 2016, it is mandatory that all public issues are subscribed through ASBA only.

How long does it take to get the shares listed after issue?

- It takes 6 working days after the closure of the book built issue.

What is the role of a ‘Registrar’ to an issue?

- The Registrar finalizes the list of eligible allottees after deleting the invalid applications and ensures that the corporate action for crediting of shares to the demat accounts of the applicants is done and the dispatch of refund orders to those applicable are sent.

Does NSE provide any facility for IPO?

- Yes. NSE‘s electronic trading network spans across the country providing access to investors in remote areas.
- NSE operates a fully automated screen based bidding system called NEAT IPO that enables trading members to enter bids directly from their offices through a sophisticated telecommunication network.

What is a Prospectus/Offer document?

- Prospectus is a document released by a issuer which discloses information like the reason for raising the money, the way money is proposed to be spent, the return expected on the money size of the issue, the current status of the company, its equity capital, its current and past performance, the promoters, the project, cost of the project, means of financing, product and capacity etc.
- It also contains lot of mandatory information regarding *underwriting* and statutory compliances.
- This helps investors to evaluate short term and long term prospects of the company.

What is an 'Abridged Prospectus'?

- Abridged Prospectus' is a shorter version of the Prospectus and contains all the salient features of a Prospectus. It accompanies the application form of public issues.

What is a Red Herring Prospectus?

- Red Herring Prospectus is a prospectus, which does not have details of either price or number of shares being offered, or the amount of issue.
- This means that in case price is not disclosed, the number of shares and the upper and lower price bands are disclosed.

Who prepares the ‘Prospectus’/’Offer Documents’?

- Prospectus are prepared by Merchant bankers.
- The Prospectus‘ is submitted to SEBI for its approval.

WHAT IS MEANT BY ‘LISTING OF SECURITIES’?

- Listing means admission of securities of an issuer to trading privileges (dealings) on a stock exchange through a formal agreement.
- In other words, listed securities can be traded on the stock exchanges where they are listed

What is a ‘Listing Agreement’?

- At the time of listing securities of a company on a stock exchange, the company is required to enter into a listing agreement with the exchange.
- The listing agreement specifies the terms and conditions of listing and the disclosures that shall be made by a company on a continuous basis to the exchange.

What does ‘Delisting of securities’ mean?

- The term —Delisting of securities‘ means permanent removal of securities of a listed company from a stock exchange.
- As a consequence of delisting, the securities of that company would no longer be traded at that stock exchange.

FOREIGN CAPITAL ISSUANCE

Can companies in India raise foreign currency resources?

- Yes. Indian companies are permitted to raise foreign currency resources through two main sources:

  a) issue of foreign currency convertible bonds more commonly known as FCCBs

  b) issue of ordinary shares through depository receipts namely:

  Global Depository Receipts (GDRs)/American Depository Receipts (ADRs)‘ to foreign investors i.e. to the institutional investors or individual investors.

(a) What is meant by Foreign Currency Convertible Bonds?

- Foreign Currency Convertible Bond‘ (FCCB) means a bond issued by an Indian company expressed in foreign currency, and the principal and interest in respect of which is payable in foreign currency‘.
- These are issued in the international markets by Indian companies.
- These bonds are convertible to equity (share) after a certain period of time at the option of the bond holder.

(b) What is an American Depository Receipt?

- An American Depositary Receipt (—ADR) is a physical certificate evidencing ownership of American Depositary Shares (—ADSs).

- An American Depositary Share (—ADS) is a U.S. dollar denominated form of equity ownership in a non-U.S. company. It represents the foreign shares of the company held on deposit by a custodian bank in the company's home country.
- ADSs provide U.S. investors with a convenient way to invest in overseas securities and to trade non-U.S. securities in the U.S. For e.g. a person residing in U.S. can invest in any Indian company like Reliance, Tata etc.
- These are traded in the stock exchanges of USA like New York Stock Exchange (NYSE) etc.

What is meant by Global Depository Receipts?

- Global Depository Receipts (GDRs) may be defined as a global finance vehicle that allows an issuer to raise capital simultaneously in two or more markets through a global offering.
- GDRs may be used in public or private markets.
- GDR, usually represents company's traded equity/debt. The underlying shares correspond to the GDRs in a fixed ratio, for e.g. 1 GDR=10 shares.

SECONDARY MARKET

- Secondary market refers to a market where securities are traded after being initially offered to the public in the primary market and listed on the Stock Exchange.
- Majority of the trading is carried out in the secondary market.
- It is a market where seller and buyers meet directly and the issuer does not meet the investor as it is listed securities that are bought and sold.
- Secondary market comprises of equity markets and debt markets.

What is the role of the Secondary Market?

- For the general investor, the secondary market provides an efficient platform for trading of his securities. Investors can easily purchase and sell securities.
- Secondary markets are regulated markets where all transactions are carried out through stock exchanges. Hence it is a safe platform for investors.

What is the difference between the Primary Market and the Secondary Market?

- In the primary market, securities are offered to public for subscription for the purpose of raising capital or fund. Here, the investors and issuers are in direct contact for purchase and sale of securities.
- Secondary market is an equity trading venue in which already existing/pre-issued securities are traded among investors. Here, only the investors are in contact with each other and there is no contact between issuers and investors for purchase and sale of securities.

What is the role of a Stock Exchange in buying and selling shares?

- The stock exchanges in India, operate under the overall supervision of the regulatory authority, the Securities and Exchange Board of India (SEBI).
- They provide a trading platform, where buyers and sellers can meet to transact in securities.
- The trading platform provided by NSE is an electronic one and there is no need for buyers and sellers to meet at a physical location to trade.
- They can trade through the computerized trading screens.

WHAT IS A DEPOSITORY?

- A depository is like a bank wherein the deposits are securities (viz. shares, debentures, bonds, Government securities, units etc.) in electronic form.
- There are two depositories in India which provide dematerialization of securities. The National Securities Depository Limited (NSDL) and Central Depository Services (India) Limited (CDSL)

Who is a Depository Participant (DP)?

- The Depository provides its services to investors through its agents called depository participants (DPs). These agents are appointed by the depository with the approval of SEBI

Does one need to keep any minimum balance of securities in his account with his DP?

- No. The depository has not prescribed any minimum balance. You can have zero balance in your account.

What is an ISIN?

- ISIN (International Securities Identification Number) is a unique identification number for a security.

STOCK TRADING

What is Screen Based Trading?

- It is an on-line, fully-automated screen based trading system (SBTS) where a member can punch into the computer the quantities of a security and the price at which he would like to transact, and the transaction is executed as soon as a matching sell or buy order from a counter party is found.

What is NEAT?

- National Exchange for Automated Trading (NEAT), is the trading system of NSE.
- It is a state of-the-art client server based application. At the server end all trading information is stored in an in-memory database to achieve minimum response time and maximum system availability for users.

How to place orders with the broker?

- You may go to the broker's office or place an order on the phone/internet/SMS or as defined in the *Model Agreement,* which every client needs to enter into with his or her broker.

How does an investor get access to internet based trading facility?

- Internet based trading enables an investor to buy/sell securities through internet which can be accessed from a computer by the investor from anywhere.
- The investor is provided with a user name and password with which he can login to the broker's website or app and place his orders.

What is the maximum brokerage that a broker can charge?

- The maximum brokerage that can be charged by a broker from his clients as commission cannot be more than 2.5% of the value of purchase or sale.
- However, it is up to the broker to charge less and many also do so. Hence, SEBI only prescribes the maximum brokerage chargeable and not the minimum.

How to know if the broker or sub broker is registered?

- One can confirm it by verifying the registration certificate issued by SEBI. A broker's registration number begins with the letters **'INB'** and that of a sub broker with the letters '**INS'**.
- SEBI website carries the list of registered brokers and sub brokers. Hence, registration can be verified there also.

What is SEBI SCORES or SEBI Complaints Redressal System?

- SCORES facilitates you to lodge your complaint online with SEBI against companies and brokers and subsequently view its status.
- To register a complaint online on SCORES portal, click on —Complaint Registration under —Investor Corner.

PRODUCTS IN THE SECONDARY MARKETS

What are the products dealt in the Secondary Markets?

The main financial products/instruments dealt in the Secondary market may be divided broadly into Shares and Bonds:

Shares

Equity Shares:

- *An equity share, also known as an ordinary share, represents the form of fractional ownership in a business.*
- *Owners of Equity shares gets share in profits known as dividend.*

Preference shares:

- Owners of these kind of shares are entitled to a fixed dividend or dividend calculated at a fixed rate to be paid regularly before dividend can be paid to equity shareholders.
- They also enjoy priority over the equity shareholders in payment of surplus.
- But in the event of liquidation, their claims rank below the claims of the company's creditors, bondholders/debenture holders.

PRODUCTS IN THE SECONDARY MARKETS

Bond

- A bond is a negotiable certificate evidencing indebtedness.
- A debt security is generally issued by a company, municipality or government agency.
- A bond investor lends money to the issuer and in exchange, the issuer promises to repay the loan amount on a specified maturity date.
- The issuer usually pays the bond holder periodic interest payments over the life of the loan.

Zero Coupon Bond:

- Bond issued at a discount and repaid at a face value.
- No periodic interest is paid.
- The difference between the issue price and redemption price represents the return to the holder. The buyer of these bonds receives only one payment, at the maturity of the bond.

Convertible Bond:

A bond giving the investor the option to convert the bond into equity at a fixed conversion price.

EQUITY INVESTMENT

Why should one invest in equities in particular?

- When you buy a share of a company you become a shareholder in that company.
- Shares are also known as Equities.
- Equities have the potential to increase in value over time.
- Research studies have proved that the equity returns have outperformed the returns of most other forms of investments in the long term.

Investors buy equity shares or equity based mutual funds because :-

- Equities are considered the most rewarding, when compared to other investment options if held over a long duration.
- Research studies have proved that investments in some shares with a longer tenure of investment have yielded far superior returns than any other investment.
- On November 9, 1999, the Nifty closed at 1,364 points. On February 18, 2016, the Nifty closed at 7191 points, showing an increase of 421% over 16 years. •

However, this does not mean all equity investments would guarantee similar high returns.

- Equities are high risk investments.
- Though higher the risk, higher the potential returns, high risk also indicates that the investor stands to lose some or all his investment amount if prices move unfavorably.
- One needs to study equity markets and stocks in which investments are being made carefully, before investing.

What has been the average return on Equities in India?

- In Nifty, for the past sixteen years as on February 18, 2016, Indian stock market has returned about an average of 26% in terms of increase in share prices or capital appreciation annually.
- On average, stocks have paid 1.5% dividend annually.

Dividend is a percentage of the face value of a share that a company returns to its shareholders from its annual profits.

- Compared to most other forms of investments, investing in equity shares offers the highest rate of return, if invested over a longer duration.

Which are the factors that influence the price of a stock?

Broadly there are two factors:

(1) Stock Specific Factors

The stock-specific factor is related to people's expectations about the company, its future earnings capacity, financial health and management, level of technology and marketing skills.

(2) Market Specific Factors

- The market specific factor is influenced by the investor's sentiment towards the stock market as a whole.
- This factor depends on the environment rather than the performance of any particular company.
- Events favourable to an economy, political or regulatory environment like high economic growth, friendly budget, stable government etc. can fuel euphoria in the investors, resulting in a boom in the market.
- On the other hand, Unfavourable events like war, economic crisis, communal riots, minority government etc. depress the market irrespective of certain companies performing well.

However, the effect of market-specific factor is generally short-term.

- Despite ups and downs, price of a stock in the long run gets stabilized based on the stock-specific factors.
- Therefore, a prudent advice to all investors is to analyse and invest and not speculate in shares

What is meant by the terms Growth Stock and Value Stock?

Growth Stocks:

- Companies whose potential for growth in sales and earnings are excellent, are growing faster than other companies in the market or other stocks in the same industry are called the Growth Stocks.
- These companies usually pay little or no dividends and instead prefer to reinvest their profits in their business for further expansions.

Value Stocks:

- These are the Stocks that have been overlooked by other investors and which may have a ‘hidden value‘.
- Price of such stock may have declined because of some bad event, or may be in an industry in which investors are not interested.
- However, the company still has assets to its name - buildings, real estate, inventories, subsidiaries, and so on. Many of these assets still have value, yet that value may not be reflected in the stock‘s price.
- Value investors look to buy stocks that are undervalued, and then hold those stocks until the rest of the market realizes the real value of the company‘s assets.

What is a Portfolio?

- A Portfolio is a combination of different investment assets mixed for the purpose of achieving an investor‘s goal(s).
- A portfolio may include any financial asset such as shares, debentures, bonds, mutual fund units, fixed deposits etc.
- A portfolio may also include Physical assets like gold, real estate etc.

What is Diversification?

- It is a risk management technique that mixes a wide variety of investments within a portfolio.
- It is designed to minimize the impact of any one security on overall portfolio performance.
- Diversification is possibly the best way to reduce the risk in a portfolio.

Advantage of Diversification

Why Diversification?

- A good investment portfolio is a mix of a wide range of asset class.
- Different securities perform differently at any point in time, so with a mix of asset types, your entire portfolio does not suffer the impact of a decline of any one security.
- When your stocks go down, you may still have the stability of the bonds in your portfolio.
- It is the simple practice of —not putting all your eggs in one basket.
- If you spread your investments across various types of assets and markets, you'll reduce the risk of your entire portfolio getting affected by the adverse returns of any single asset class.

DEBT INVESTMENT

What is a 'Debt Instrument'?

Debt instrument represents a contract whereby one party lends money to another on pre-determined terms with regards to rate and periodicity of interest, repayment of principal amount by the borrower to the lender.

Term "bond" is used for debt instruments issued by the Central and State governments and public sector organizations

Term *"debenture"* is used for instruments issued by Private corporate sector.

What are the features of debt instruments?

1. Maturity:

- Maturity of a bond refers to the date, on which the bond matures, which is the date on which the borrower has agreed to repay the principal.
- *Term-to-Maturity* refers to the number of years remaining for the bond to mature.
- The term to maturity of a bond can be calculated on any date, as the distance between such a date and the date of maturity.

2. Coupon:

- Coupon refers to the periodic interest payments that are made by the borrower (who is also the issuer of the bond) to the lender (the subscriber of the bond).
- Coupon rate is the rate at which interest is paid, and is usually represented as a percentage of the par value of a bond.

3. Principal:

Principal is the amount that has been borrowed, and is also called the par value or face value of the bond.

What are the Segments in the Debt Market in India?

(1) Government Securities

(2) Public Sector Units (PSU) bonds

(3) Corporate securities.

Are bonds/Debentures rated for their credit quality?

- Most Bond/Debenture issues are rated by specialised credit rating agencies.
- Credit rating agencies in India are CRISIL, CARE, ICRA, Fitch and SMERA.
- The safer (high rating) the instrument, the lower is the rate of interest offered.

How can one acquire securities in the debt market?

You may subscribe to issues made by the government/corporates in the primary market. Alternatively, you may purchase the same from the secondary market through the stock exchanges.

What is meant by ‘Dividend’ declared by companies?

- Dividend is distribution of part of a company‘s earnings to shareholders.
- Dividend is therefore a source of income for the shareholder.

What is meant by Dividend yield?

- Dividend yield gives the relationship between the current price of a stock and the dividend paid by its‘ issuing company during the last 12 months.
- It is calculated by aggregating past year‘s dividend and dividing it by the current stock price.
- Example: ABC Co. Share price: Rs. 360 Annual dividend: Rs. 10

  Dividend yield: 2.77% (10/360)

- A high dividend yield is considered to be evidence that a stock is underpriced, whereas a low dividend yield is considered evidence that the stock is overpriced.

What is a Stock Split?

- A stock split is a corporate action which splits the existing shares of a particular face value into smaller denominations.
- It increases the number of shares , however, the market capitalization remains the same.
- For e.g. If a company has issued 1,00,00,000 shares with a face value of Rs. 10 and the current market price being Rs. 100
- A 2-for-1 stock split would reduce the face value of the shares to 5 and increase the number of the company's outstanding shares to 2,00,00,000, (l,00,00,000*(10/5)).
- Consequently, the share price would also halve to Rs. 50 so that the market capitalization or the value shares held by an investor remains unchanged.
- It is the same thing as exchanging a Rs. 100 note for two Rs. 50 notes; the value remains the same.

Why do companies announce Stock Split?

- Splitting the stock brings the share price down to a more —attractive‖ level. As the price of a security gets higher and higher, some investors may feel the price is too high for them to buy, or small investors may feel it is unaffordable.
- Splitting a stock may lead to increase in the stock‘s *liquidity,* since more investors are able to afford the share and the total outstanding shares of the company have also increased in the market.

What is Stock Consolidation?

- It is the reverse of a stock split. A number of present shares are combined to make a smaller number of shares, like for example turning 3 shares into 1.
- As a result, the number of shares goes down. However, the price goes up proportionately.
- For example, a company has 1 lakh shares valued at Rs.50 each. The company decides to bring down the number of shares to 50,000/-. Then, 2 shares will be combined to make one. Hence, a shareholder who had 400 shares will now only have 200. However, the price will go up from Rs. 50/- per share to Rs. 100/- per share.

What is Buy back of Shares?

- A buyback can be seen as a method for company to invest in itself by buying shares from other investors in the market.
- Buybacks reduce the number of shares outstanding in the market.
- Buy back is done by the company with the purpose to improve the liquidity in its shares and enhance the shareholders‘ wealth.

CLEARING & SETTLEMENT AND REDRESSAL

What is a Clearing Corporation?

- A Clearing Corporation is a part of an exchange or a separate entity
- It performs three functions:

(a) It clears and settles all transactions, i.e. completes the process of receiving and delivering shares/funds to the buyers and sellers in the market,

(b) It provides financial guarantee for all transactions executed on the exchange

(c) It provides risk management functions.

- National Securities Clearing Corporation (NSCCL), a 100% subsidiary of NSE, performs the role of a Clearing Corporation for transactions executed on the NSE.

What is Rolling Settlement?

- Under rolling settlement all open positions at the end of the day mandatorily result in payment/ delivery *n` days later.
- Currently trades in rolling settlement are settled on T+2 basis where T is the trade day.
- For example, a trade executed on Monday is mandatorily settled by Wednesday (considering two working days from the trade day). The funds and securities pay-in and pay-out are carried out on T+2 days.

What is Pay-in and Pay-out?

- Pay-in day is the day when the securities sold are delivered to the exchange by the sellers and funds for the securities purchased are made available to the exchange by the buyers.
- Pay-out day is the day the securities purchased are delivered to the buyers and the funds for the securities sold are given to the sellers by the exchange.
- At present the pay-in and pay-out happens on the 2nd working day after the trade is executed on the stock exchange.

What is an Auction?

- On account of non-delivery of securities by the trading member on the pay-in day, the securities are put up for auction by the Exchange.
- The Exchange purchases the requisite quantity in auction market and gives them to the buying trading member.
- This ensures that the buying trading member receives the securities.

What is a Bad Delivery?

- If Securities given for delivery are mutilated or damaged or without signature or proper form, it is known as Bad delivery.
- These would then be returned to the seller for appropriate action.
- This was more a problem when trading was carried out in physical securities. Now the issue is relatively unimportant on account of electronic trades.

WHAT RECOURSES ARE AVAILABLE TO INVESTOR/CLIENT FOR REDRESSING HIS GRIEVANCES?

- You can lodge complaint with the Investor Grievances Cell (IGC) of the Exchange against brokers on certain trade disputes or non-receipt of payment/securities.
- IGC takes up complaints through the NSE trading member or SEBI registered sub-broker of a NSE trading member.

WHAT IS ARBITRATION?

- Arbitration is an alternative dispute resolution mechanism provided by a stock exchange for resolving disputes between the trading members and their clients.
- If no amicable settlement could be reached through the normal grievance redressal mechanism of the stock exchange, then you can make application for reference to Arbitration under the Bye-Laws of the concerned Stock exchange.

WHAT IS AN INVESTOR PROTECTION FUND?

- Investor Protection Fund (IPF) is maintained by NSE.
- The IPF is utilised to settle claims of such investors where the trading member through whom the investor has dealt has been declared a defaulter due to non-payment or non receipt of securities.