Gokhale Education Society's

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N. S. Chandak Science College

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CASE STUDIES

DEPARTMENT OF COMMERCE
(Sample Copies)

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FACULTY OF COMMERCE

NAME OF STUDENT: - BEAUTY SINGH

PRN: - 2502100700

University Seat No.:- 28134

M. COM PART: - II

SEM: - IV

SUBJECT: - RECENT ADVANCES IN ACCOUNTING, TAXATION & AUDITING.

SUBJECT CODE: - 403

ACADEMIC YEAR: - 2022-2023

CASE STUDY: - RAKESH JHUNJHUNWALA

NAME OF SUBJECT TEACHER: - DR. THAKUR AKASH ASHOK

RAKESH JHUNJHUNWALA - CASE STUDY

Late Mr. Rakesh Jhunjhunwala, the "Big Bull" of the Indian stock market, was a legendary investor known for his investment decisions and remarkable success. In this blog, we will decode Rakesh Jhunjhunwala's investing strategy, including his approach to market timing, portfolio composition, stock selection, and valuable advice for budding investors.

Rakesh Jhunjhunwala followed a momentum strategy, which means he tended to buy stocks when the market was rising and sell when it was falling. This strategy involves identifying trends and investing in the direction of those trends. By doing so, he aimed to leverage the upward or downward movement in stock prices rather than strictly adhering to the conventional "buy low, sell high" approach.

When the market is experiencing an upward trend or rising prices, it suggests positive sentiment among investors. Buying during a rising market is based on the expectation that the upward momentum will continue, allowing the investor to sell the stock later at a higher price.

Conversely, when the market is in a downward trend or falling, it indicates negative sentiment and a potential decline in prices. Selling during a falling market is a strategy to minimize losses or, in some cases, profit from short selling (betting that the price will go down).

Rakesh Jhunjhunwala's investment strategy revolved around choosing companies with a competitive advantage. A competitive advantage is something that sets a company apart from its competitors and gives it an edge in the market. This could be a unique product or service, cost efficiency, strong brand recognition, intellectual property, or any factor that makes the company more competitive.

Companies with a competitive edge are better positioned to withstand market fluctuations and competition, which can contribute to long-term success. They may be able to charge premium prices, maintain higher profit margins, and attract and retain customers more effectively than their competitors.

Rakesh Jhunjhunwala follows a strategy of purchasing stocks at the right price. He says, "It not only matters what you buy, but at what price you buy." This principle highlights the idea that even a fundamentally strong stock may not be a wise investment if it is bought at an unfavorable price. Jhunjhunwala's strategy involved a keen focus on entry points, ensuring that investments are made when market conditions and valuations offer a favorable price.

Recognizing the uncertainty in the market, Mr. Jhunjhunwala avoided investing all his capital in one go. Instead, he adopted a cautious approach by initially purchasing a small quantity of stock, analyzing its performance, and then deciding whether to increase his investment. This strategy helped manage risk by allowing for adjustments based on the ongoing market conditions.

Rakesh Jhunjhunwala followed a strategy of maintaining distinct portfolios for trading and investing. This means that he kept separate sets of investments for these two purposes.

For trading, the focus is often on short-term gains, and the portfolio may involve more frequent buying and selling of assets. On the other hand, the investing portfolio is geared towards long-term growth, and the holdings may be chosen with a view to holding them over an extended period.

By keeping these portfolios separate, Jhunjhunwala was able to manage risk and optimize his approach to the varying dynamics of short-term trading and long-term investing.

In this case study, we'll try to understand the trading and investing strategies of one of India's most successful traders and investors, Mr. Rakesh Jhunjhunwala. So, how does Mr. Rakesh J who has made huge money through trading, actually trade in the market? Does he use technical analysis while trading in the market? Can technical analysis help in earning profits in the market? What strategy does Mr. Rakesh J adopt while trading? Let us understand all of this in our blog.

Once a conference was going on, where a discussion was taking place on topics such as trading & investing. Here, a person came up and said, "let's not talk about trading, who earns through trading? Let us discuss investing. You can earn by way of only investing and not trading." Just as Mr. Rakesh J heard this, he slammed the person by saying, "I came in the market with just Rs. 5000. Initially, I got my capital through trading only and if you say that one cannot earn through trading then who gave me the money, your father or mine. Because, in the beginning, I have earned huge money through trading only."

Rakesh Jhunjhunwala is not just an investor but he is an ace trader too. In his early days, he earned a lot of money through trading and he then invested that money for the long-term. Later, this money worked wonders for him. Simply, it means that the money he had invested, gave him great returns later on Mr. Rakesh Jhunjhunwala has two brains one is an investing brain and the other being a trading brain. Whenever, Rakesh Jhunjhunwala invests he uses his investing brain, follows the investment rules. Cash flow statement, balance sheet, fundamental analysis, etc. are to be followed while investing. He knows this very well and hence, follows it too. Similarly, whenever, he trades he uses his trading brain and follows the trading rules. Trend analysis, chart analysis, technical analysis, etc. are to be followed while trading and he does it all while trading.

To date all the conferences, interviews, TV shows, parties, etc. that have taken place, Rakesh J has mentioned his successful trading mantra always, everywhere, each time. And that trading mantra is, "Vadhaare vadhaare levanu, ghataare ghataare bechvanu." When translated it means, buy when the share is in uptrend and sell only when the share goes in the downtrend.

During an interview with Ramesh Damani, an ace investor as well as a TV show presenter. Mr. Damani asked Mr. Rakesh Jhunjhunwala, "How you carry out your trading? What trading strategy do you follow? What is your secret formula for trading and what is this vadhaare vadhaare levanu, ghataare ghataare

bechvanu? What is the first thing you see, while trading? Tell us about it." To this, Rakesh J replied by saying that "The first thing he sees while trading is the broad direction of the market and for that one does not need to sit in front of the screen all the while. So, vadhaare vadhaare levanu means that opting for i.e. buying such a share which is in uptrend and ghataare ghataare bechvanu means selling a share when it seems to be going in the downtrend."

Now, Mr. Rakesh Jhunjhunwala was asked that you say vadhaare vadhaare levanu that means you suggest buying such an expensive share? To this, Mr. Rakesh Jhunjhunwala replied, "Why not. Who said that the share is expensive? Because if that share continues to be in an uptrend then, later on, you'll see that the price for which you had bought it was not at all expensive. This is one such rule which most of the traders don't follow and hence, only 100 traders make money out of the 10 lakh traders out there in the market."

Rakesh Jhunjhunwala believes that if he makes about 100 trades, only 40 of them might turn out in his favor. He says that whenever he goes wrong in a trade, he accepts his loss immediately and gets himself out of the trade. He believes, as a good trader, we must know when to exit the wrong trade. Rakesh Jhunjhunwala says if he bought a share for Rs. 100 and he has determined Rs. 90 as the level of stop-loss. Then he makes sure to exit the trade if the stop-loss is hit in that trade. If he didn't exit the trade, he might not be able to sleep peacefully. Here the funny thing is that Rakesh Jhunjhunwala believes that if he makes about 100 trades, only 40 of them might prove right, whereas in the market there are such traders who want their 100/ 100 trades to be right.

We also come across such traders in the market who buy shares when the price goes down and buy more shares when the price declines further. And when asked upon why are you doing this? They reply saying that they are 'averaging'. Rakesh Jhunjhunwala when asked whether if your trade goes in loss, do you average your trades? To this, he replied, "I never-ever average." The lesson that we learn here is that, while trading, determine in advance the level where you'll exit the trade in-case your trade goes wrong.

When Rakesh Jhunjhunwala was asked when you buy a share while trading and that trade goes into profit then when do you exit such a trade? What is the target that you set? To this, he laughed off saying Target? What is the target? I also see on TV shows, people giving target values for shares. How can anyone predict such a thing or for that matter how can anyone predict anything? So he answered the question by saying, "Whenever he buys a share and that trade goes into profit, he makes sure to hold that share till it is in the uptrend. He said, he holds the share till the share does not indicate that it is going in the downtrend i.e. till there is some technical weakness found in that share or till the time the chart indicates a sell signal there."

This means that while trading, if our prediction goes wrong then we should exit the trade at the right time and while we are in a profitable trade we should hold on to that trade till the time the share is in the uptrend. But most of the traders do exactly the opposite. When they are in loss, they wait there patiently and

while they make some profit in some trade, they immediately take the profit and leave instead of holding onto that profitable trade. This leads to the mounting of losses and no profits as such.

Conclusion:-

Understanding the fact that stock market trading is a risky business and Mr. Rakesh Jhunjhunwala is very well aware of it. There were such years in his life where he didn't make a good amount of money from the market. But he knew that whenever the market rises/ moves from low valuation towards an uptrend and if we invest accordingly, then we are bound to make good money. And he has proved it by doing it several times earlier. As the saying goes, "Strike when the iron is hot." So if the share is in the uptrend the momentum is also in uptrend and you get a buy signal again for the second time then Rakesh Jhunjhunwala starts pyramiding there i.e. he starts accumulating the shares there.

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FACULTY OF COMMERCE

NAME OF STUDENT: - DEEPANJALI LAXMINARAYANA NAIDU

ROLL NO.:- 09

M. COM PART: - II

SEM: - IV

SUBJECT: - RECENT ADVANCES IN ACCOUNTING, TAXATION & AUDITING.

SUBJECT CODE: - 403

ACADEMIC YEAR: - 2021-2022

CASE STUDY: - CASE STUDY OF FALSE DEDUCTIONS CLAIMED UNDER U/S 80 C/ 80CCD/ 80D/ 80DD/ 80G/ 8GG WITH SPECIAL REFERENCE TO THE CA. KISHOR PATIL CASE.

NAME OF SUBJECT TEACHER: - DR. THAKUR AKASH ASHOK

08
10

Case study of Direct Tax subject (Income Tax Act, 1961):

Genesis: On behalf of Commerce Department, we are hereby discussing the details of the renowned case of CA. Kishor Patil occurred in the Financial Year 2019-20 and still continues till date.

Newspaper Clip:

UNI
BREVITY ACCURACY SPEED
United News of India
India's Multi Lingual News Agency
Monday, Mar 4 2024 | Time 10:57 Hrs(IST)

Image

Posted at: Sep 12 2019 5:02PM

Nashik CA booked in Rs 16.77 cr ITR fraud

Nashik, Sep 12 (UNI) The Income Tax(I-T) Department has filed a case against a city-based Chartered Accountant for allegedly engineering a refund fraud to the tune of Rs 16.77 crore over a period of three years, officials said here on Thursday.

As per the case lodged at the Mumbai Naka Police Station hereon Wednesday, the accused CA had filed bogus claims under the name of 1,888 employees of various private and public sector undertakings and availed benefit of tax returns.

The case has been filed by I-T Officer Dhanraj K Borade against the accused CA Kishor Rajendra Patil, a resident of Shakuntala Park, Sambhaji Chowk.

Tags: #Nashik CA booked in Rs 16.77 cr ITR fraud

Plot:

CA. Kishor Rajendra Patil is a well established qualified Chartered Accountant in Nashik city, resident of Shakuntala Park, Sambhaji Chowk. He has his own Tax Consultancy firm in Nashik. He has been filing Income Tax Returns of his clients, which include assesses from various Private and Public sector undertakings namely Currency Note Press (CNP), India Security Press (ISP), Mahindra & Mahindra (M & M), Maharashtra State Board of Electricity (MSEB), Eklahare Thermal Power Plant, etc.

Being a professionally qualified Chartered Accountant, he is well versed in acknowledging the loopholes in Income Tax Return filing system which is completely computerized.

He has claimed bogus deductions under Chapter VI-A namely Section 80C(Life Insurance Premium, Repayment of Principal amount for Housing Loan, Specified Mutual Funds, etc.) totaling for Rs.1,50,000(maximum limit), Section 80D(Mediclaim ,Medical Expenses) for Rs.25,000/ Rs.50,000(as the case may be), Section 80G (Contributions to Charitable Funds),Section 80GG (Rent for Housing Accommodation), Section 80DD(Medical Expenses for dependent disabled) for Rs. 50,000/Rs.75,000,etc. This ultimately lead to claiming false deductions from the Gross Total Income thereby reducing the Total Income.

Also, he has claimed deduction under Section 24(b) i.e. Interest paid/accrued on Housing Loan for acquisition/construction/purchase of self-occupied house property for Rs.2,00,000 (maximum limit) under the head of Income from House Property and further did not show any rental income apparently thereby claiming a set-off for Rs.2,00,000 from the head of Income from Salary thereby reducing the Gross Total Income.

Since the assesses were working in well established and renowned sectors, their Tax were also deducted (TDS) from Salaries, which were also reflected in Form 26AS in the Income Tax portal. Also, by observing the 3rd and 4th paragraph, the assesses were liable to pay tax on their Total Income which were apparently less than what they actually were liable to pay. Further, by analyzing the above mechanism, they had to pay tax comparatively less than what they actually had to pay. Also, since the Income Tax filing procedure is completely online, the assesses also received refund from their TDS (deducted earlier), duly credited to their respective Bank Account.

However, the Commissioner of Income Tax of Nashik City, Mr. Dhanraj Borade detected this loophole and filed a complaint in the Income Tax Department against CA.Kishor Patil who was prosecuted for a fraud Rs.16.77 Crores.

The assessees who had filed Income Tax Returns under his representation, were ignorant and were not professionally qualified to understand the technicalities

Income Tax procedures and laws. However, after acknowledging the facts , they repaid this falsely claimed amount duly with Interest for the respective Assessment Years. But they are still receiving Penalty proceedings u/s 270, 270(1)(b) ,270(1)(c), etc. of the Income Tax Act, 1961

Conclusion:

The conclusion of this case study is that 1,888 employees, who were assesses of CA. Kishor Patil, still receive Penalty proceedings, even though they have repaid their claimed amount (Challan receipt) as an evidence. Their individual cases are still under investigation and has had still not concluded.

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ASSIGNMENTS

DEPARTMENT OF CHEMISTRY

Department of Chemistry

S.Y.B.Sc

Assignment 1 Chemistry paper II Set 1

Time : 50 mints **Mark:20**

Q.1 Define..... [4]

1. Diastereomers 2.Specific rotation 3. Equatorial- H atom 4. Meso-compounds

Q.2 Explain.... ..... [8]

1. Why chair conformation is more stable than boat conformation. Explain with Newmann projection formula

2. Factors Affecting the stability of conformations .

Q.3 : Draw the Geometrical isomers of.. Cis and Trans 1,2 –dimethyl cyclohexane [3]

Trans 1,4-dimethyl cyclohexane

Q.4 : How many optical isomers are possible for following compound. Assign R and S configuration to the chiral centers. [5]

S.Y.B.Sc

Assignment 2 Chemistry paper II Set 2

Time : 50 mints **Mark:20**

Q.1 Define..... [4]

1. Enantiomers 2.Angle strain 3. Axial- H atom 4. Configuration

Q.2 Explain.... ..... [8]

1. Baeyers theory failed to explain stability of higher cycloalkane.

2. Draw the conformations of t-butyl cyclohexane. Explain why t-butyl group locked at equatorial position

Q.3 : Draw the Geometrical isomers of.. Cis and Trans 1,3 –dimethyl cyclohexane [3]

Cis 1,4-dimethyl cyclohexane

Q.4 : How many optical isomers are possible for following compound. Assign R and S configuration to the chiral centers. [5]

T.Y.B.Sc CHEMISTRY

Assignment -I Biochemistry Set 1

Time : 50 mints **Marks:20**

Q.1 Define..... 3marks

1. Steroids 2.Enzyme Inhibition 3.Iodine number

Q.2 Answer the following.... .....8 Marks

1. Clinical significances of Isoenzymes.

2. Competative Inhibition .

Q.3 : Write a short note on ... 5 Marks

1. Factors affecting the activity of Enzyme. 2.Hardening of oil

Q.4 : Draw the structures of 4

1. Cholesterol 2. β- D Fructo furanose 3. Cephalin 4.Eiadiac acid

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T.Y.B.Sc

Assignment -I Biochemistry Set 2

Time : 50 mints **Marks:20**

Q.1 Define..... 3marks

1. Km 2.Enzyme 3.saponification number

Q.2 Answer the following.... .....8 Marks

1. Polysaccharides.

2. Non Competative Inhibition .

Q.3 : Write a short note on ... 5 Marks

1. Factors affecting the activity of Enzyme. 2. Classification of lipids

Q.4 : Draw the structures of 4

1. Heterodisaccharides 2. α- D gluco pyranose 3. Sphingomyelin 4.Linoleic acid

TYBSC CHEMISTRY ASSIGNMENT

STRUCTURES OF BIOMOLECULES

Submission Date 18/10/2023

1.Draw the structure of

1) Sucrose
2) Proline
3) Phenyl alanine
4) Lactose
5) Cephalin
6) Lecithin
7) Tristearin
8) Triolein
9) Phosphatidic acid
10) Phosphatidylinositol
11) Sphingomyelin
12) Cerebroside
13) Psychosine
14) Hardening of oil (only reaction)
15) Saponification (only reaction)

TYBSC CHEMISTRY

Assignment No. 1

Introduction to spectroscopy

Submission Date 16/03/2023

Q.1 Solve the following:

1. Wavelength of radiation is 6μ. Find frequency in Hz and wave no. in cm^{-1}
2. Wavelength of radiation given below .Calculate Energies.
   a. 762 nm
   b. 36.9 nm
   c. 4.23 μ
3. Which of the following two radiations have greater energy.
   1. λ= 591nm
   2. λ= 5.42×10^{12} sec
4. Calculate the wave number of the following radiation.
   1. λ= 342nm
   2. V (Frequency)= 7.17×10^{14} sec^{-1}

5. A radiation has a wavelength of 254 nm.Calculate
   a) Wavelength in cm
   b) Frequency in Hz
   c) Energy in ergs
   d) Wave no. in Kaysers

6.Two radiations having wavelength $3000A^0$ and $20000A^0$ Calculate their energies in ers and which has higher energy.

7. Express in cm^{-1}
   1. λ= 5μ
   2. λ= 10μ
   3. λ= 100μ

Class: SYBSC CHEMISTRY

Assignment 3

Topic: Isomerism in Coordination Compound

Submission date : 05/02/2021 Friday

Marks :50

1. Explain with suitable examples geometrical isomerism in square planar complexes.
2. Why tetrahedral complexes do not show geometrical isomerism ?
3. Why do square planar complexes not show optical isomerism?
4. Define optical isomerism. Explain optical isomerism in $[M(a\text{-}a)_2\ x_2]$ OR $[M(aa)_3]$
5. Draw the structure of cis-$[Co(NH_3)_4Cl_2]+$
6. Explain the different types of isomerism shown by $(Co(en)_2\ (Br)_2]$
7. Give one example of an optically active square planar complex.
8. Out of the following compounds select those which show linkage isomerism and
   their structures.

   A. Dichloro Tetraamine Platinum ion
   B. Nitritopentamminecobalt (III) ion and
   C. Nitropentaamminecobalt (III) ion
   D. Dibromotetramminecobalt (II) ion

9. State with reason the type of isomerism in the following pairs of compounds.

   (a) $(Co(NH_3)_5\ Br]SO_4$ and $[Co(NH_3)_5\ SO_4]Br$

   (b) $(Co(NH_3)_5\ NO_2]Cl$ and $[Co(NH_3)_5ONO]Cl_2$

   (c) $(Co(NH_3)_6]\ [Cr(C_20_4)_3]$ and $[Co(C_20_4)_3\ ]\ [Cr(NH_3)_6]$

   (d) $[Pt(NH_3)_3\ Br]NO_2$ and $[Pt(NH_3)_3\ NO_2]Br$

10. What type of isomerism is present in the following pair of complexes ?

(1) $[Co(NH_3)_6]$ $[Cr(CN)_6]$ and $[Cr(NH_3)_6]$ $[Co(CN)_6]$

(2) $[Pt(NH_3)_4Cl_2]Br_2$ and $[Pt(NH_3)_4Br_2]Cl_2$,

(3) $[Co(H_2O)_5NO_2]Cl_2$, and $[Co(H_2O)_5$ ONO$]Cl_2$

11. Identify and explain the isomerism in following inorganic complexes.

1. $[Pt(NH_3)_3Br)$ NO_2 and $[Pt(NH_3)_3NO_2)Br$

2. $[Co\ (en)_2\ (H_20)$ CI $]Cl_2$ and $[Co\ (en)_2\ Cl_2\ ]$CI $.H_20$

3. $[Ir\ (NH_3)_5\ (NO_2)]\ Cl_2$ and $[Ir\ (NH_3)_5\ (ONO)]\ Cl_2$

4. $[Co(NH_3)_5$ SCN$]^{2-}$ and $[Co(NH_3)_5$ NCS$]^{2-}$

5. $Co(pn)_2Cl_2]$CI and $Co(tn)_2Cl_2]$CI

6. $[Pt(NH_3)_2Br2]$ and $[Pt(NH_34]$ $[PtBr_4]$

12. Draw cis and trans isomer of $[Cr(NH_3)_3CI_3]$

13. Name the geometrical isomers formed by $[Co(NH_3)_3Br_3]$

14. What type of structural isomerism is shown by $[Co(NH_3)_4Cl_2l]$ CI. H_2O.

15. Draw all geometrical isomerism of $[Pt(NH_3)_2(Pr)_2\ (Cl)_2]$. Which isomer shows optical activity.

TYBSC CHEMISTRY

Assignment No.1

Chapter 1

Polynuclear and Heteronuclear Aromatic Compounds

Submission :Wednesday 17/08/2023

Q.1 :Whether the following compounds are Aromatic,Nonaromatic or Antiaromatic.Why?

1. Cyclopentadienyl anion

2. Azulene

3. Tropone

4. [8] Annulene

5. Pyrene

6. Furan

7. Pyridine

8. [10] Annulene

9. Cyclobutadienyl dication

10.Napthalene

Q.2 Explain

1. In Furan Electrophilic substitution is more at C_2/C_5 position. Why?

2. In Napthalene Electrophilic substitution is more at α position. Why?

3. In Pyridine Electrophilic substitution is more at C_3/C_5 position. Why?

Q.3 What is the reaction of following reagents with Pyridine?

1. Cold H_2SO_4 2. $CH_3COCl/AlCl_3$,Benzene

3. Phenyl diazonium chloride 4. $CHCl_3$/KOH 5. Sodamide

Q.4 What is the reaction of following reagents with Napthalene?

1. Conc. H_2SO_4 / 60o C

2.$CH_3COCl/AlCl_3$,Nitrobenzene 3. Na/Ethyl Alcohol

4. HNO_3/H_2SO_4

TYBSC CHEMISTRY

23/10/2020

Assignment 3

Amino Acids and Proteins

30 Marks

Submission date 26/10/2020

Q.1 Give two example of each

1. Globulins
2. Chromoproteins
3. Lipoproteins
4. Metalloproteins
5. Phosphoproteins
6. Primary Derived proteins
7. Catalytic proteins
8. Protective Proteins
9. Regulatory Proteins
10. Storage proteins
11. Transport Proteins
12. Toxic Proteins
13. Contractile Proteins
14. Secretory Proteins
15. Nucleoproteins

02/12/2020

TYBSC CHEMISTRY

Assignment 1

Enzymes

30 Marks

Submission date 10/12/2020

1. What is active site of enzyme? 2M

2. Define Km. 2M

3. What is enzyme inhibition?.2M

4. Write a note on enzyme specificity. 4M

5. Write a Michaelis Menten equation.2M

6. Differentiate between apo and Holoenzyme.2M

7. What is optimum pH for an enzyme ?Give the optimum pH of pepsin.2M

9. Effect of substrate on enzyme activity. 4M

10. Discuss various types of enzyme inhibition 6M

11.what are allosteric enzymes ? Give their significance...give one example 4M

Biochemistry

Assigoment - 1 ⇒ Carbohydrates

1] Define Carbohydrates ?

:— Carbohydrates are naturally occuring Compounds containing group of organic compound consisting of C, H, O usually in the ratio of 1:2:1 called Carbohydrates.

Formula ⇒ $C_x(CH_2O)_x$

exe — Glucose, fructose

2] What are Monosaccharides ? Give one example ?

:— Monosaccharides are sugar Carbohydrates which do not undergo hydrolysis & based on functional group which are present in them such as aldehyde & ketonic groups called Monosaccharides.

exe — Glucose, fructose

3] What are Disaccharides ? Give one example ?

:— Disaccharide is a sugar formed when two monosaccharides are joined by glycosidic linkage called Disaccharides.

exe — Sucrose, lactose

4] Give one example each of aldopentose & Ketohexose ?

:— Aldopentose ⇒ D-Ribose

Ketohexose ⇒ D-Fructose

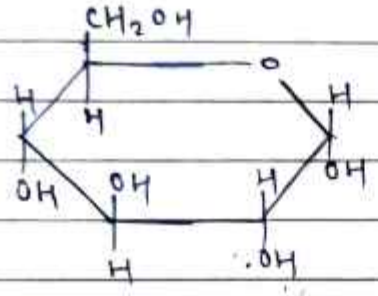
21-09-2022

Page No.
Date: / /

Assignment 1

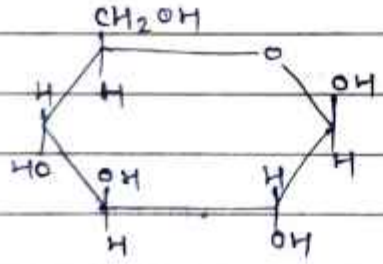
Draw Structures of

a) α-D Glucopyranose



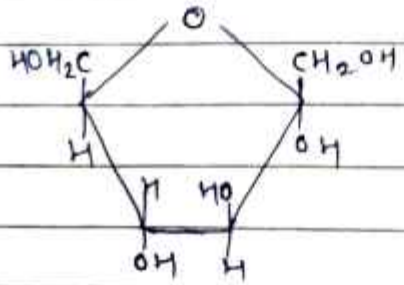
α-D-glucopyranose

b) β-D Glucopyranose



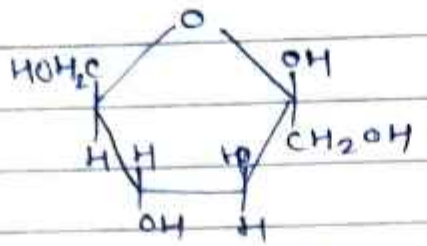
β-D-glycopyranose

c) α-D fructofuranose



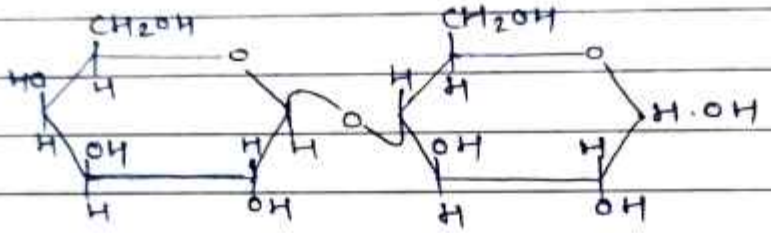
α-D fructofuranose

d) β-D fructofuranose



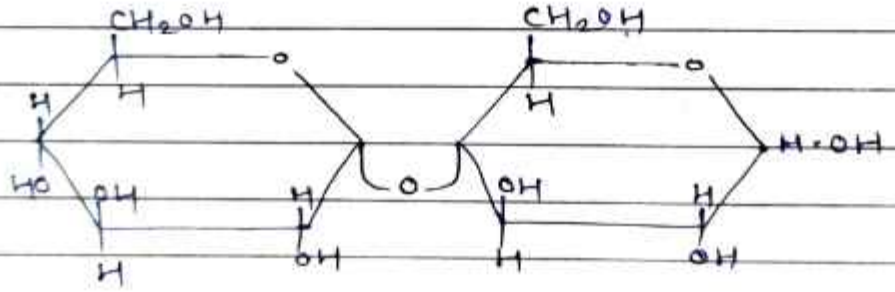
β-D fructofuranose

e) Lactose



β-(1,4) Glycosidic bond

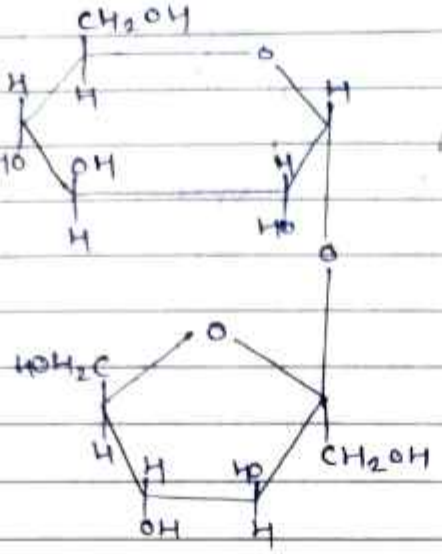
f) Maltose



1,4 α-glycosidic bond

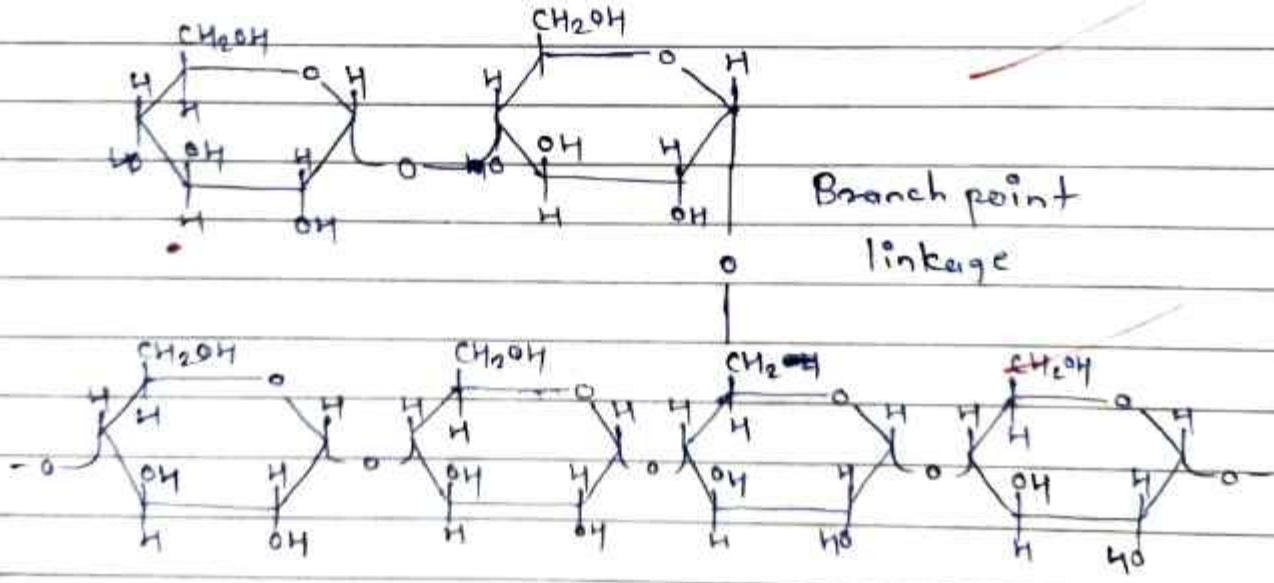
g) Sucrose

g) Sucrose



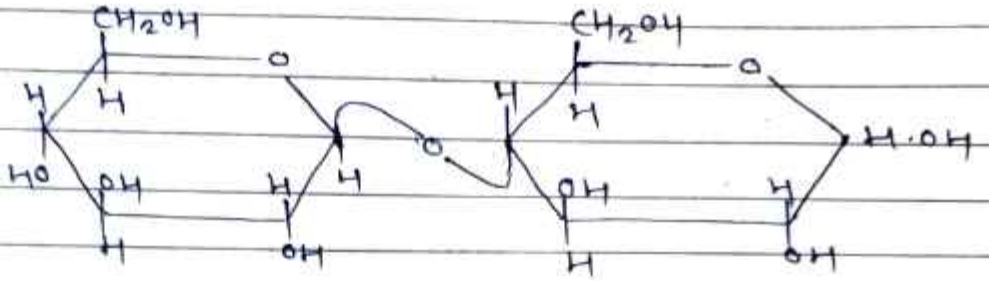
α-D glucopyranosyl (1,2) β-D-fructofuranose

h) Amylopectin



(Glucose α (1,6) glucose)

9) Cellobiose



1,4 - β glycosidic bond

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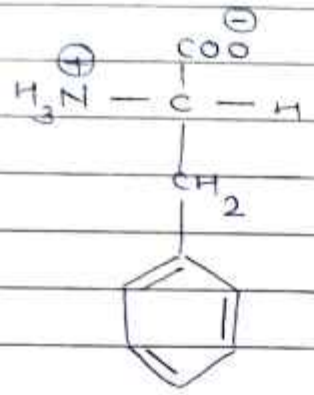
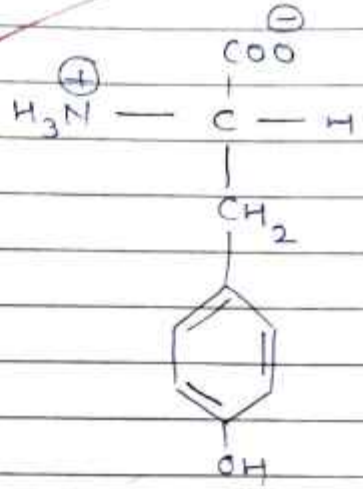
Assignment 2

Draw Structures of

1) 2 - Aromatic amino acid

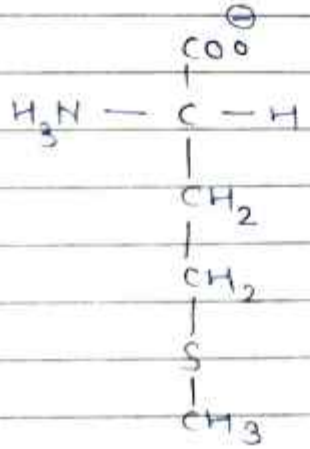


Phenylanaline
(Phe) (F)

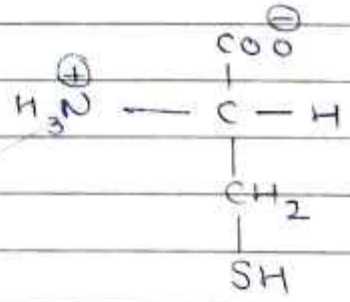


Tyrosine
(Tyr) (Y)

2) 2 - Sulphur Containing amino acids

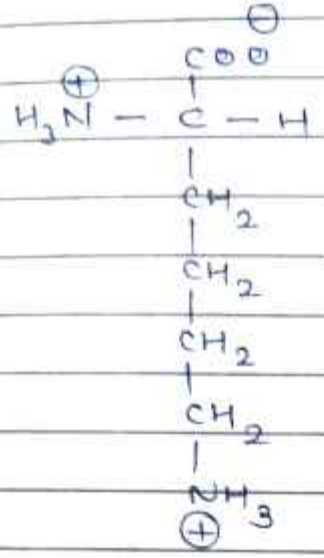


Methionine (Met)(M)

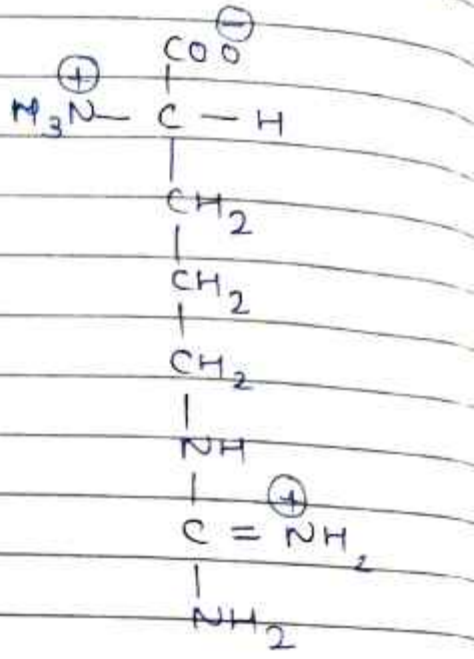


Cysteine
(Cys) (C)

3) 2 - Basic (Positively charged) Amino acids

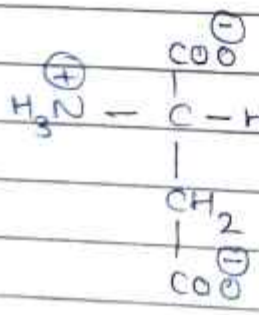


Lysine (Lys) (K)

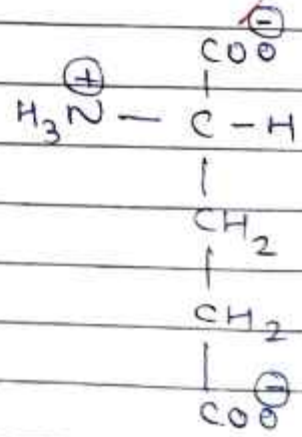


Arginine (Arg) (R)

4) 2 - Acidic (Negatively charged) Amino acids



Aspartate
(Aspartic acid)
(Asp) (D)



Glutamate
(Glutamic acid)
Glu (E)

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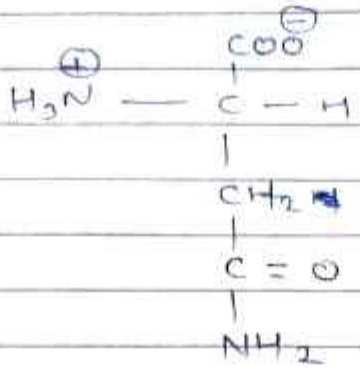
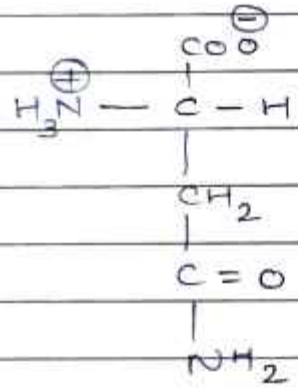
5) Amide Amino acid

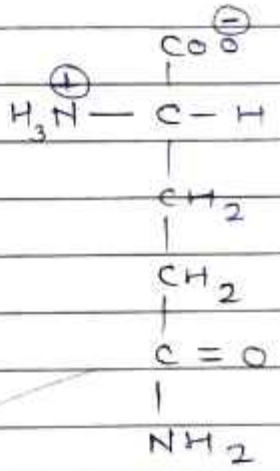


Asparagine (Asn) (N)

6) 2 - Polar Uncharged amino acid

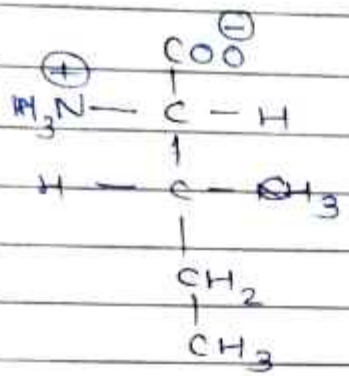


Asparagine (Asn) (N)

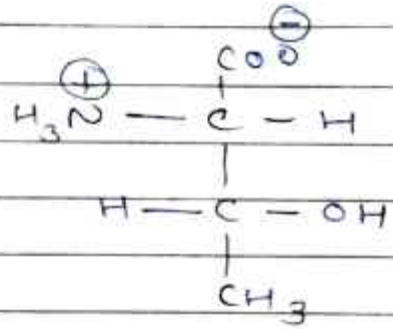


Glutamine (Gln) (Q)

7) 2- amino acids with two asymetric carbon atoms.

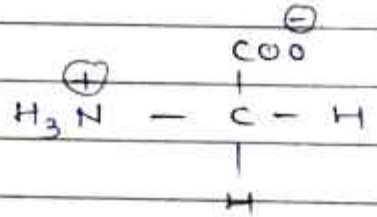


Isoleucine (Ile) (I)



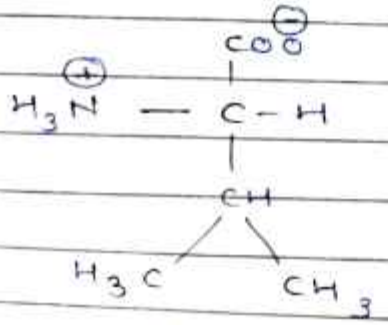
Thereonine (Thr) (T)

8) Optically inactive amino acid

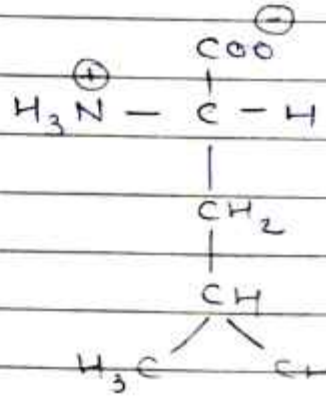


Glycine (Gly) (G)

9) Non polar aliphatic amino acid



Valine (Val) (V)



Lucine (Leu) (L)

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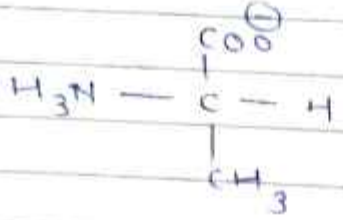
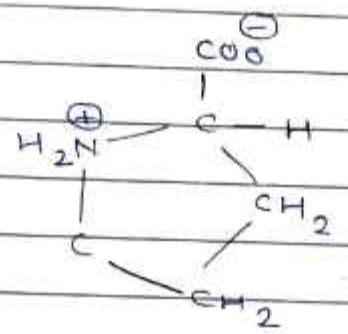
10) Amino acid where, R = CH_3



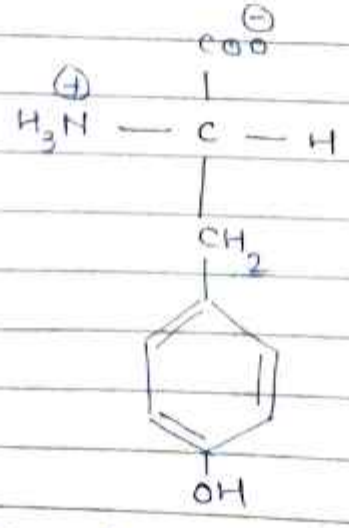
Alanine (Ala) (A)

11) Amino acid where R-group Contain 5 members ring structure.



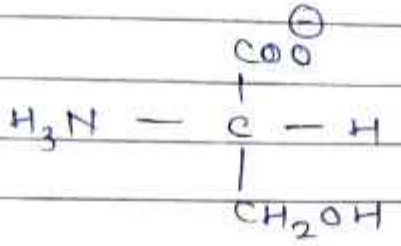
Proline (Pro) (P)

12) Amino acid where R group contain phenol group



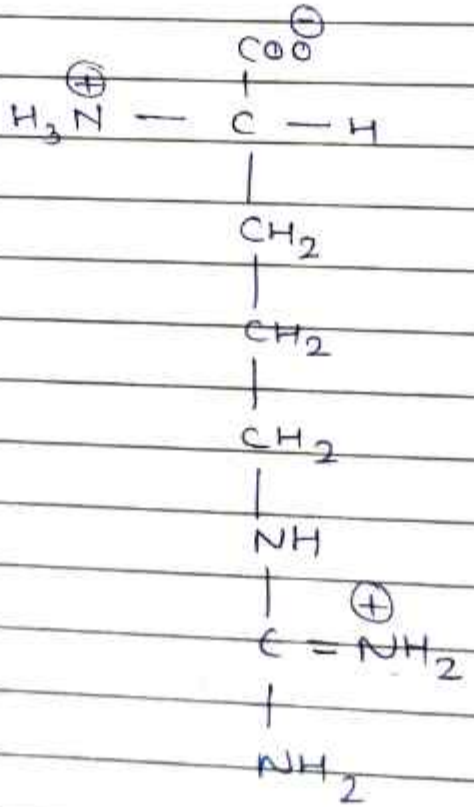
Tyrosine (Tyr) (Y)

13) Amino acid where R-group contain alcohol group



Serine (Ser) (S)

14) Amino acid where R-group contain three N atom.



Arginine (Arg) (R)

15/09/2020

Date

30 marks

Assignment No. 1

Carbohydrate

Q.1 Define carbohydrates.

→ Carbohydrates are polyhydroxyaldehyde or polyhydroxyketones and their derivatives or the substances which yield these on hydrolysis.

Q.2 What are monosaccharides ?

→ Monosaccharides are the basic units of carbohydrates and cannot be hydrolysed further to simple compounds
E.g. Glucose, fructose ($C_6H_{12}O_6$)

Q.3 What are disaccharides ? Give one example.

→ Disaccharides are the carbohydrates on hydrolysis produce two monosaccharide molecules which may be same or different.
e.g. Sucrose ($C_{12}H_{22}O_4$) $\xrightarrow{\text{hydrolysis}}$ Glucose + Fructose
($C_6H_{12}O_6$) ($C_6H_{12}O_6$)

Q.4 Give one example each of aldopentose and ketohexose.

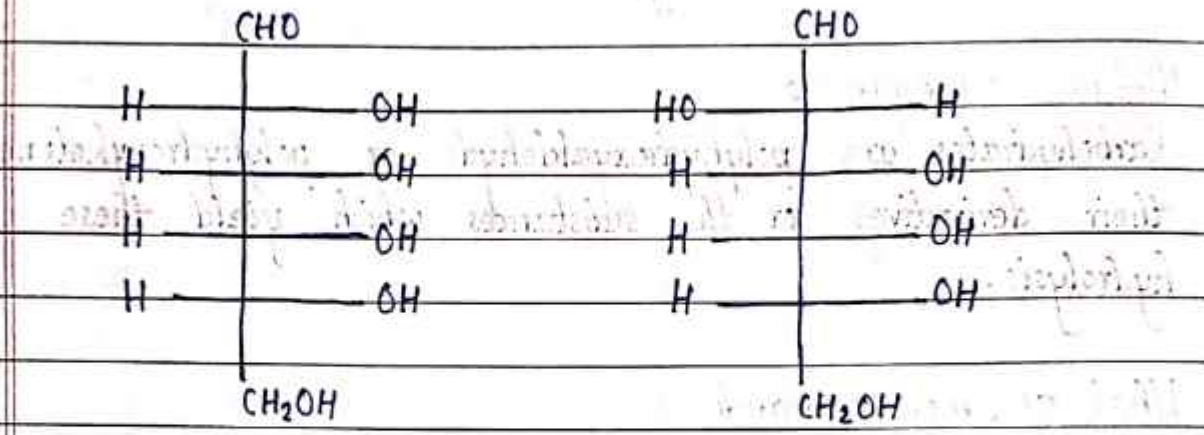
→ 1) Aldopentose :- Arabinose ($C_5H_{10}O_5$)
2) Ketohexose :- Fructose ($C_6H_{12}O_6$)

Q.5 Define the term epimer ? Give example.

→ Epimers are diastereomers that contains more than one chiral centre but differ from each other in the absolute configuration at only one chiral centre.

e.g. -

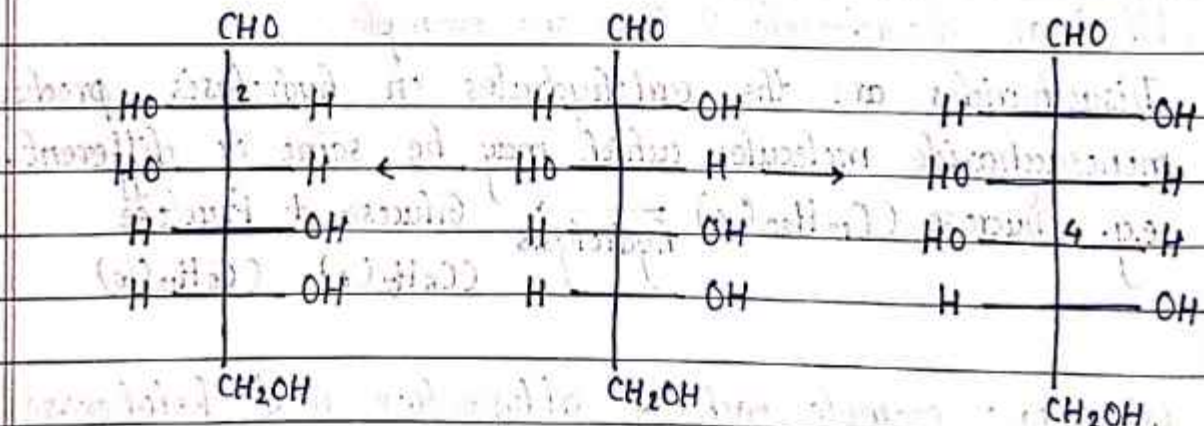
D - Allose and D - Altrose - C_2 - epimers.



D - Allose D - Altrose

Q. 6 Give the name of C_2 and C_4 epimer of Glucose.

→



D - mannose (D - Glucose) D - Galactose

(epimer at C_2) (epimer at C_4)

Q. 7 Give one example each of storage and structural polysaccharide.

→ 1) Storage polysaccharide - Starch, Glycogen.

2) Structural polysaccharide - Cellulose.

Q.8 Define Anomers.

→ The cyclic isomers which differ at only first carbon atom or anomeric carbon atom are known as anomers of each other:

e.g. α-D-Glucose & β-D-Glucose.

Q.9 Classify carbohydrates with suitable examples.

→ Classification of carbohydrates:-

A] Monosaccharide -

These are the basic unit of carbohydrates and cannot be hydrolysed further to simple compounds. They are further classified based on the functional group:-

1) Aldoses:- The monosaccharides containing aldehyde (-CHO) functional group called aldoses.

2) Ketoses :- The monosaccharides containing ketone (>C=O) functional group called ketoses.

Depending upon number of carbon atoms monosaccharides are known as triose, tetrose, pentose, hexose, etc.

e.g. - 1) Arabinose — Aldopentose

2) Glucose — Aldohexose

3) Fructose — Ketohexose

B] Oligosaccharides :-

1) Carbohydrates which on hydrolysis gives two to ten monosaccha-ride units are known as oligosaccharides.

2) These are sweet tasting, crystalline, soluble sugars. They are further classified as-

i) Disaccharides ($C_{12}H_{22}O_{11}$) :-

This carbohydrates on hydrolysis produce two monosaccharide molecules which may be same or different.

e.g. Sucrose, maltose, lactose, etc.

ii) Trisaccharide ($C_{18}H_{32}O_{16}$) :-

These carbohydrates on hydrolysis produce three monosaccharide molecules which may be same or different.
e.g. Raffinose, Gentianose, etc.

iii) Tetrasaccharide ($C_{24}H_{42}O_{21}$) :-

These carbohydrates on hydrolysis produce four monosaccharide molecules which may be same or different.
e.g. Stachyose.

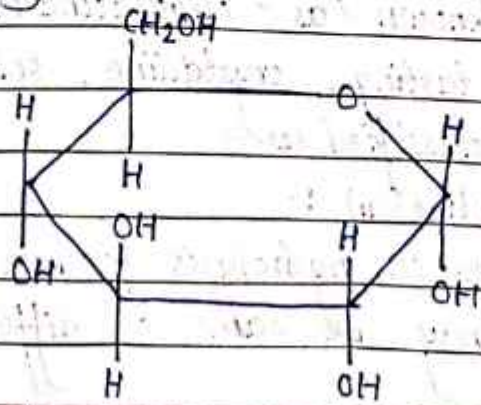
C] Polysaccharide :-

1) These consist of large number of monosaccharide units to form branched or un-branched chains.
2) These can be hydrolysed to yield monosaccharide units which are usually similar.
3) These are usually amorphous, tasteless, non-sugars and isoluble in water.

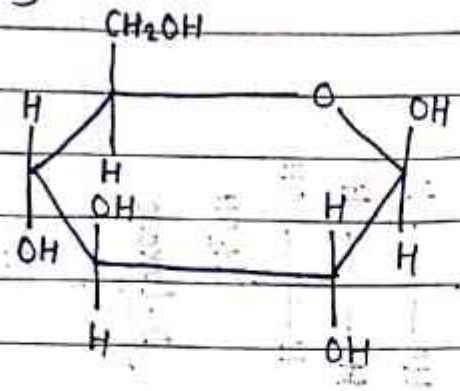
Polysaccharides can be grouped into two categories :-
a) Structural polysaccharides - e.g. Cellulose, chitin.
b) Storage polysaccharides - e.g. Starch, insulin, glycogen.

Q.10 Draw structure of α and β-D-Glucopyranose.

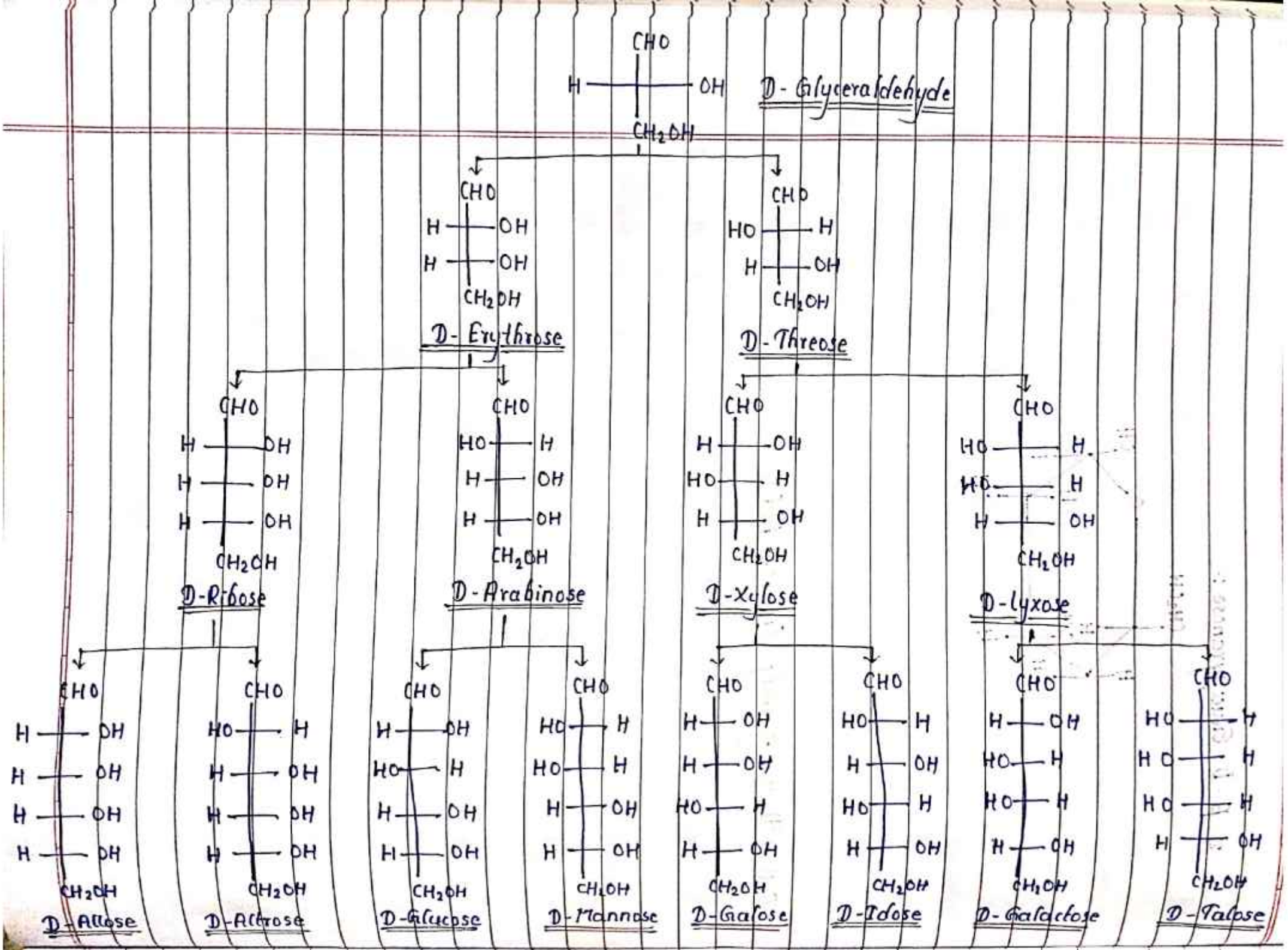
→ 1) α-D-Glucopyranose



2) β-D-Glucopyranose :-



Q.11 Draw family tree of Aldoses.



Carbohydrates

11/9/2020

Assignment No. 1

Q.1 Define carbohydrates.

→ Carbohydrates are defined as polyhydroxyaldehydes or polyhydroxyketones or the substances which yield these on hydrolysis.

Q.2 What are monosaccharides? Give one example.

→ Monosaccharides are the basic unit of carbohydrates and can not be hydrolysed further to simpler compounds.

e.g. glyceraldehyde, glucose

Q.3 What are disaccharides? Give one example.

→ Disaccharides are the carbohydrates on hydrolysis produce two monosaccharide molecules which may be same or different.

e.g. Sucrose, Lactose

Q.4 Give one example each of aldopentose and ketohexose.

→ e.g. Aldopentose → Ribose, Xylose
ketohexose → Fructose

Q.5 Define the term epimer? Give example.

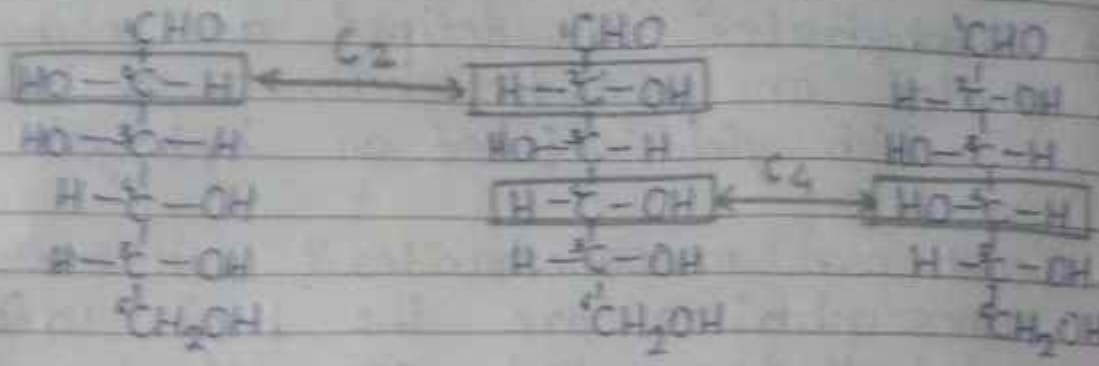
→ The optical isomers which differ in configuration only at one carbon atom are called as epimers of each other.

e.g.

D-Allose & D-Altrose → C_3-epimers.

Q. 6) Give the name of C_2 and C_4 epimer of Glucose.

→



D-Mannose (Epimer at C_2) | D-Glucose | D-Galactose (Epimer at C_4)

Q.7 Give one example each of storage and structural polysaccharide.

→ 1) Storage polysaccharide → Starch, glycogen
2) Structural polysaccharide → Cellulose

Q.8 Define Anomers.

→ The cyclic isomers which differ at only first carbon atom or anomeric carbon atom are known as anomers of each other.

e.g.

α-D-Glucose and β-D-Glucose

Q. 9 Classify carbohydrates with suitable examp

→

CARBOHYDRATES

Sugar
(Sweet, crystalline, soluble in water)

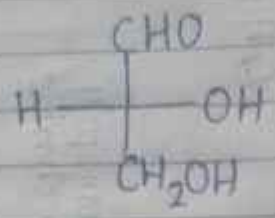
- **Monosaccharides**
  - **Aldoses** (–CHO)
    1. Aldotriose
    2. Aldotetrose
    3. Aldopentose
    4. Aldohexose
    5. eg. Glucose ($C_6H_{12}O_6$)
  - **Ketoses** (>C=O)
    1. Ketotriose
    2. Ketotetrose
    3. Ketopentose
    4. Ketohexose
    5. eg. Fructose ($C_6H_{12}O_6$)
- **Oligosaccharides**
  - Hydrolysis H_2O
  - **Disaccharide** ($C_{12}H_{22}O_{11}$) eg. Sucrose, Maltose, Lactose
  - **Trisaccharide** ($C_{18}H_{32}O_{16}$) eg. Raffinose
  - **Tetrasaccharide** ($C_{24}H_{42}O_{21}$) eg. Stachybose

Non-sugar
(Tasteless, amorphous, insoluble in water)

- **Polysaccharides** $(C_6H_{10}O_5)_n$
  - **Homopolysaccharide**
    - eg. Starch
    - **Storage polysaccharide**
      - eg. Starch, Glycogen
    - **Structural polysaccharide**
      - eg. Cellulose
  - **Heteropolysaccharide**
    - eg. Heparine

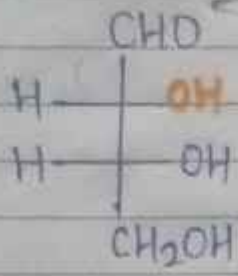
Q. 10 Draw family tree of aldoses

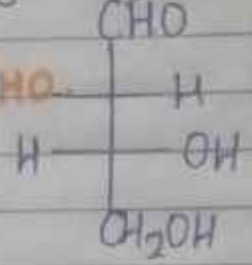
→



Aldotriose

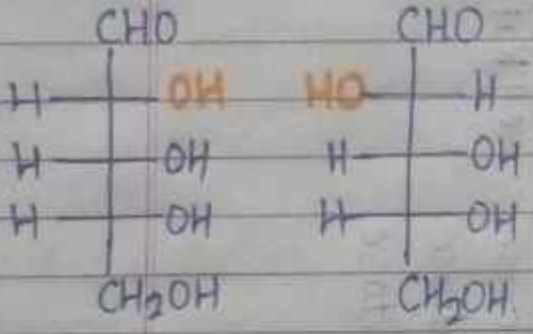
D-glyceraldehyde



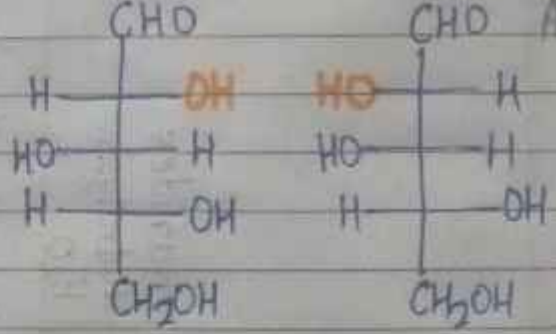


Aldotetrose

D-erythrose



D-threose



Aldopentose

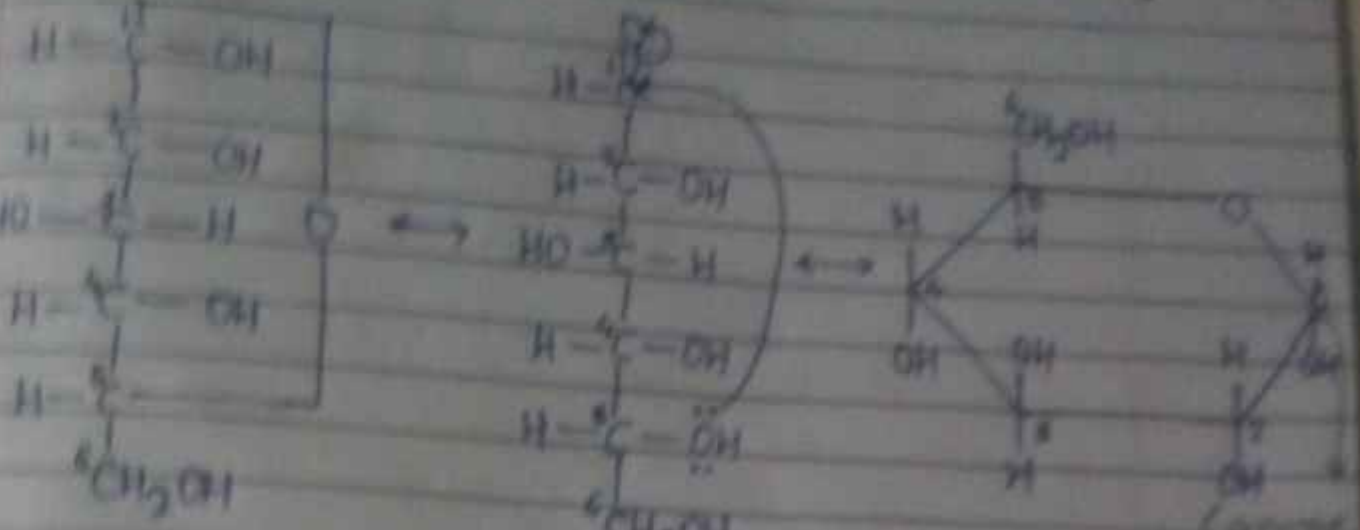
D-ribose D-arabinose D-xylose D-lyxose

D-allose D-altrose D-glucose D-mannose D-gulose D-idose D-galactose D-talose

Aldohexose

Q.11 Draw structure of α and β D- Glucopyranose.

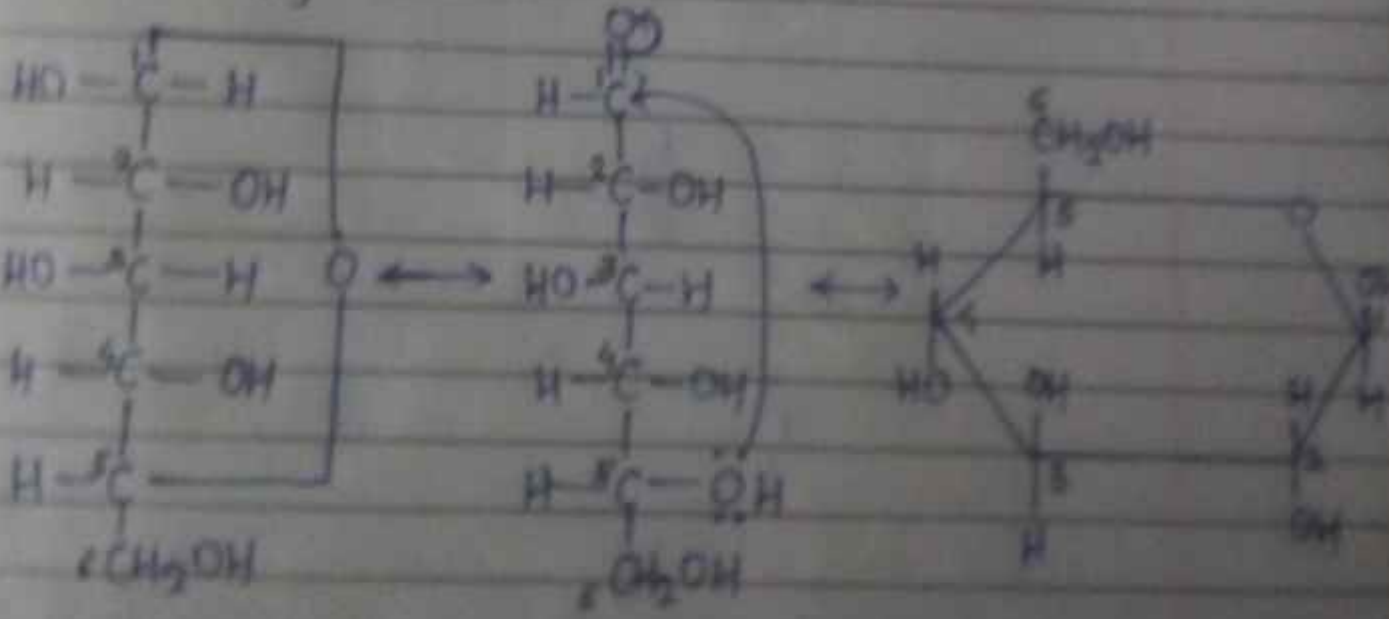
1) α-D- Glucopyranose :-



α-D- Glucose (Fischer)

α-D- Glucopyranose (Haworth)

2) β-D- Glucopyranose :-



β-D- Glucose (Fischer)

β-D- Glucopyranose (Haworth)

Assignment No.:- 2

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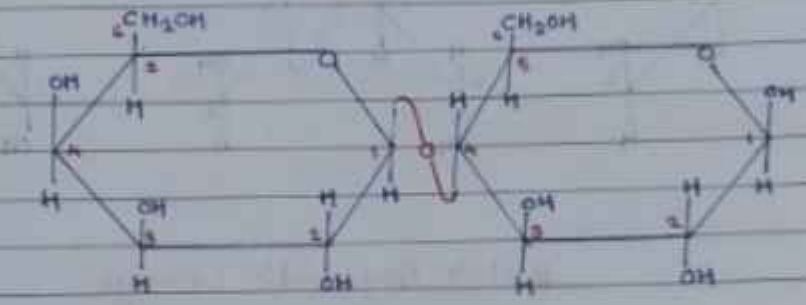
Q 1. Draw the structures with proper labelling to glycosidic bond

1. Lactose :-

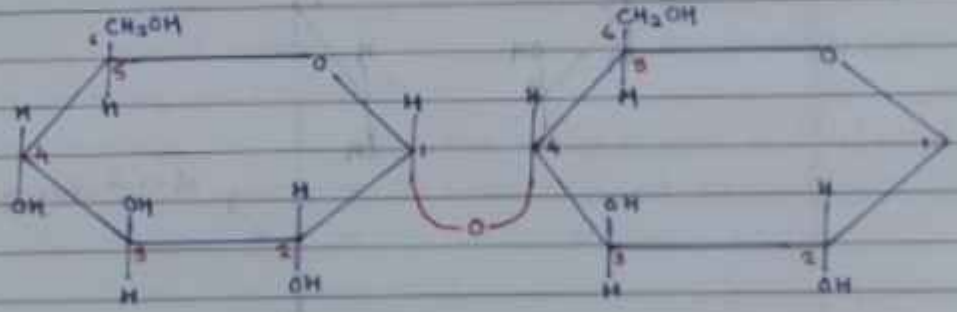


Lactose (β-form)

β-D-galactopyranosyl-(1→4)-β-D-glycopyranose

β-D-1,4 glycosidic linkage

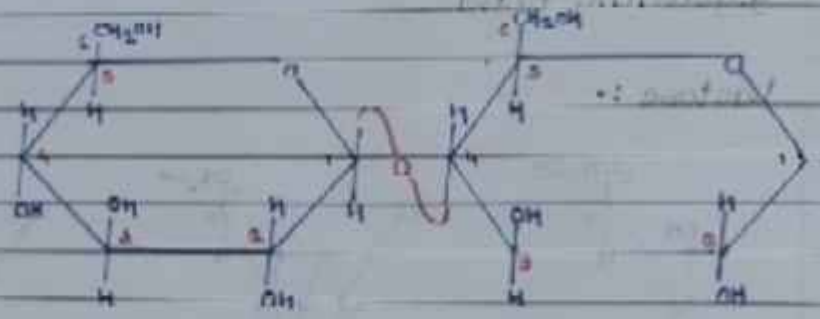
2. Maltose :-



Maltose

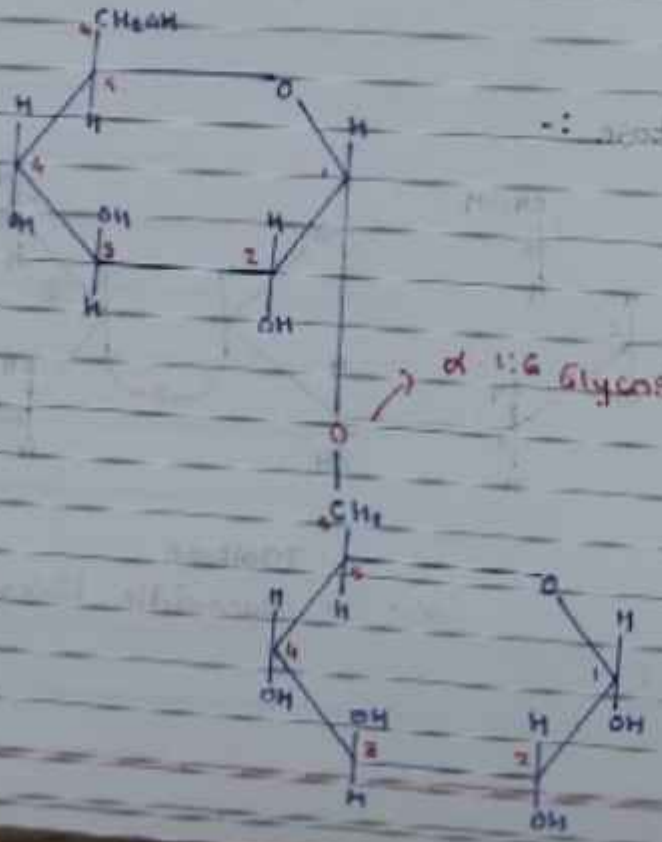
α-1,4 Glycosidic linkage

3. Cellobiose :-



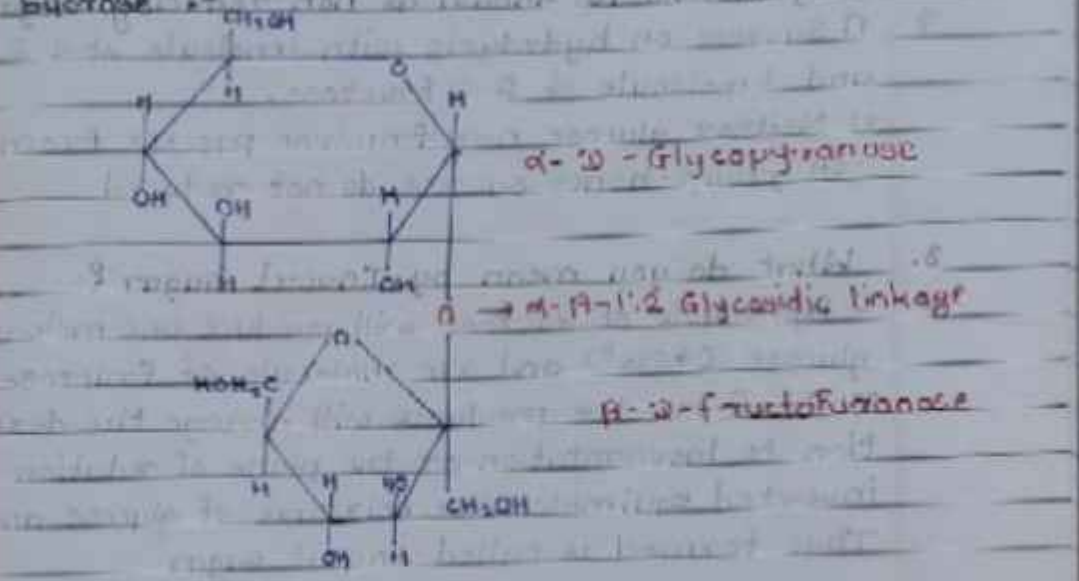
β-1:4 Glycosidic linkage

4. Isomaltose :-



α 1:6 Glycosidic linkage

5. Sucrose :-



Q 2 Explain the following :-

1. Mutarotation :-

The spontaneous change in specific rotation of an optically active without any change in other properties is known as mutarotation.

1] The natural D-Glucose melting point is 146° and is dissolved in acetic acid and allowed recrystallized The sample obtained $[\alpha]_D^{20}$ it is 113°. This optical rotation slowly changes and reaches constant value +52.5°

2] If D-Glucose melting point is 150°C is dissolved in acetic acid and water, the solution 100°C heated and cooled rapidly The sample obtained specific rotation $[\alpha]_D^{20}$ = +19° This rotation slowly changes and reaches its constant value +52.5°.

2. Why sucrose is known as non-reducing sugar?

⇒ 1) Sucrose on hydrolysis with 1 molecule of α-D Glucose and 1 molecule of β-D Fructose.

2) Neither glucose nor fructose process free anomeric -OH group. Hence sucrose do not reduced.

3. What do you mean by Invert sugar?

⇒ 1) Hydrolysis of sucrose will produce one molecule of glucose (+52.5°) and one molecule of fructose (-92°)

2) Therefore, the products will change the dextrorotation to laevorotation or the plane of rotation is inverted equimolecular mixture of glucose and fructose. Thus formed is called Invert sugar.

4. Give two examples of Heterodisaccharides.

Examples - 1) Sucrose

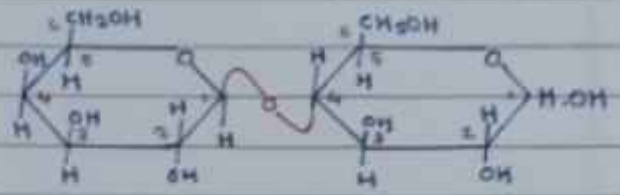
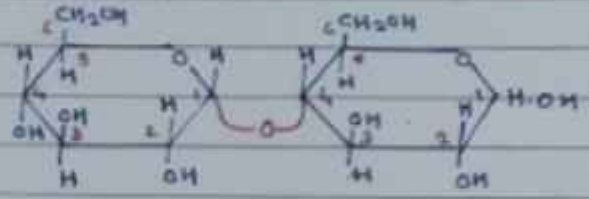
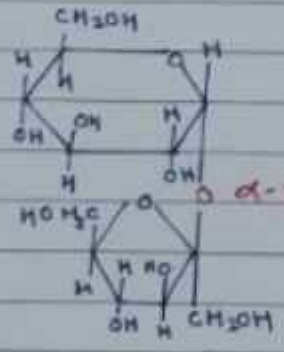
2) Lactose

5. Give two examples of Homodisaccharides

Examples - 1) Maltose

2) Isomaltose

6. Draw the table showing Glycosidic linkage in disaccharides.

1. Lactose	 β - 1:4 Glycosidic linkage
2. Maltose	 α - 1:4 - Glycosidic linkage
3. Sucrose	 α-β -1:2 Glycosidic linkage

19.1.22 Assignment (Bio chemistry)

Q1) Define Carbohydrates (2M)

→ Carbohydrates are a group of organic compounds consisting of C, H, O usually in the ratio of 1:2:1 and include well known compounds as sugars, starch, cellulose, etc. Previously, the carbohydrates were regarded as hydrates of carbon and were represented by general formula $C_x(H_2O)_y$.

Q2) What are monosaccharides? Give one example. (2M)

→ Monosaccharides are simplest of carbohydrates and are known as sugars. They are the building units of complex carbohydrates. These cannot be hydrolysed. These are sweet-tasting, crystalline and soluble in water. They have a potential aldehyde or keto group and hence reducing in nature. Eg - glucose (aldo hexose), fructose (keto hexose).

Q3) What are disaccharides? Give one example. (2M)

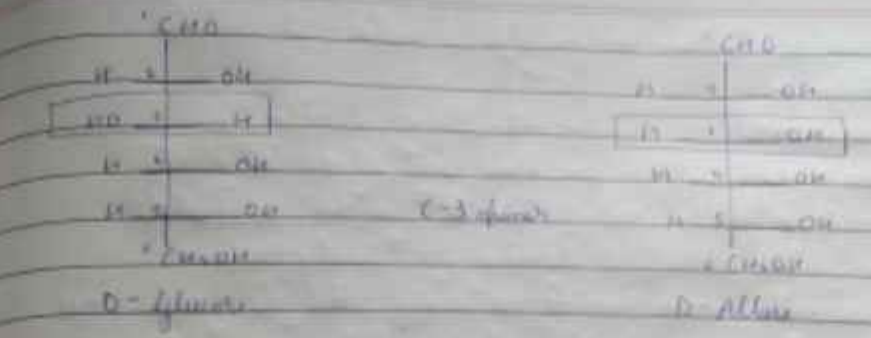
→ Disaccharides consist ~~two, three or four~~ number of two monosaccharide molecules joined together by glycosidic bonds. On hydrolysis, they yield monosaccharide units which may be similar or dissimilar. They are sweet tasting, crystalline, soluble sugars. Eg - sucrose, maltose, etc.

Q4) Give one example each of aldopentose and ketohexose (2M)

→ Fructose is ketohexose and Ribose is an aldopentose.

Q5) Define the term epimer? Give example. (2M)

→ Epimers are diastereomers that contain more than one chiral center but differ from each other in the absolute configuration at only one chiral center. Eg of epimer is D-Glucose and D-Allose as they are C-3 epimers of each other.



06) Give the name of C2 and C4 epimer of glucose. (2M)
→ D-Mannose is C2 epimer of glucose and D-Galactose is C4 epimer of glucose.

07) Give one example each of storage and structural polysaccharide. (2M)
→ Starch is example of storage polysaccharide and cellulose is example of structural polysaccharide.

08) Define anomers. (2M).
→ Anomers and epimers are both stereomers, but an epimer is a stereomer that differs in configuration at any single stereogenic center, while an anomer is actually an epimer that differs in configuration at acetal or hemiacetal carbon.

09) Classify Carbohydrates with suitable examples. (4M)
→ Carbohydrates are polyhydroxy aldehydes or polyhydroxy ketones or substances that yield such compounds on hydrolysis. Carbohydrates are classified in 2 types.
1) Sugars
2) Non-sugars

Sugar are crystalline and soluble in water. It contains two types.

A) Monosaccharide B) Oligosaccharide

A) Monosaccharide - These are basic unit of carbohydrate and cannot be hydrolysed further to simpler compounds. They are further classified based on functional groups

1) Aldoses - Be monosaccharide containing aldehyde group (-CHO)

2) Ketoses - Be monosaccharide containing ketone group (>C=O)

Depending upon number of carbon atoms, monosaccharide are known as triose, tetrose, pentose, hexose, etc Eg - Arabinose (aldopentose), Glucose (aldohexose), fructose (ketohexose), etc

B) Oligosaccharide - carbohydrates which on hydrolysis gives 2-10 monosaccharide units are called oligosaccharide. They are further classified in 3 types

1) Disaccharide - Their carbohydrate on hydrolysis produce two monosaccharide molecules which may be same or different Eg - Sucrose, lactose, etc

2) Trisaccharide - This carbohydrate on hydrolysis produce three monosaccharide molecules which maybe same or different Eg - Raffinose

3) Tetrasaccharide - This carbohydrate on hydrolysis produce four monosaccharide molecules which maybe same or different. Eg - Stachyose

C) Polysaccharide - this carbohydrate on hydrolysis gives large number of monosaccharide units - They are insoluble in water and tasteless. Two types are.

1) Homopolysaccharide - it on hydrolysis gives same monosaccharide molecules - Eg - cellulose, starch

ii) Hetero polysaccharide - This on hydrolysis gives a mixture of monosaccharide Eg - Heparin

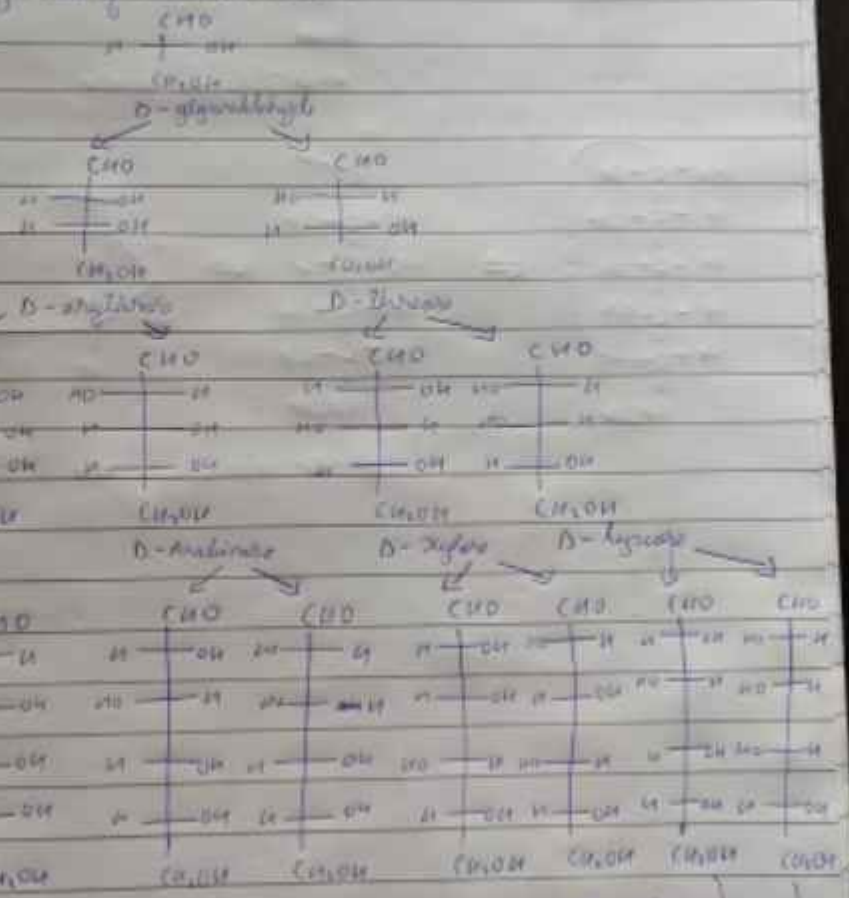
Depending on function polysaccharides are again of 2 types:

i) Storage polysaccharide - Eg - starch

ii) Structural polysaccharide - Eg cellulose

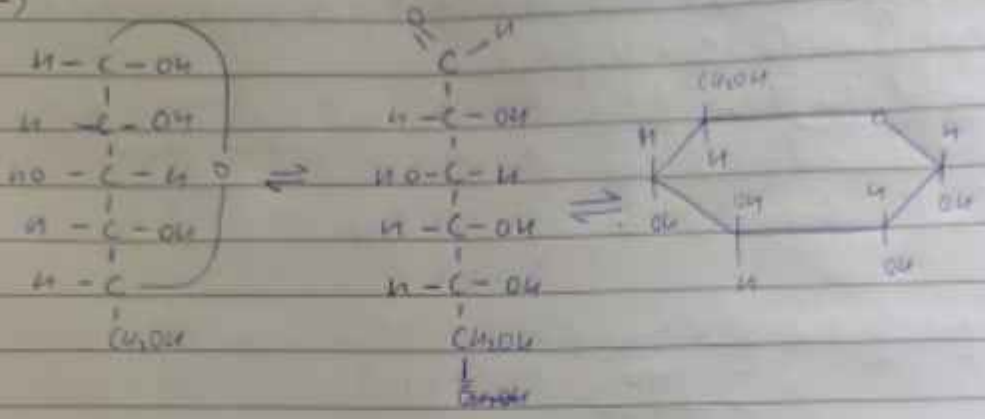
Q10) Draw family tree of Aldoses (any one)

⇒

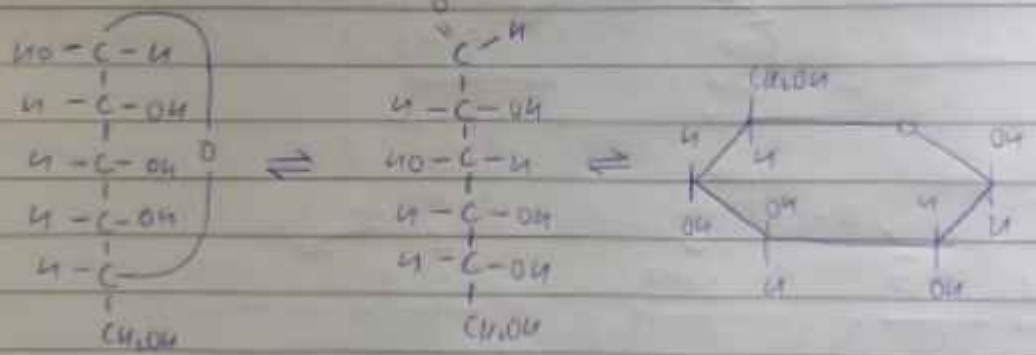


Q11) Draw structures of α and β D-fructofuranose (4M)

-)



α-D-glucopyranose



β-D-glucopyranose

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ASSIGNMENTS

DEPARTMENT OF BOTANY

Department of Botany

F.Y.B.Sc.

Principles of plant Sciences (Botany-II)

Time 30 Min. Marks-30

Note- All questions carry equal marks

Que. 1. What is plant physiology? Describe Scope of plant physiology.

Que. 2. What is diffusion? Describe factors affecting diffusion & importance if diffusion.

Que.3.What is plant cell wall? Describe structure, & functions of cell wall.

Department of Botany

S.Y.B.Sc.

Plant anatomy & embyrology (Botany-I)

Time 30 Min. Marks-30

Note- All questions carry equal marks

Que. 1. What is epidermal tissue system? Describe in detail types of trichomes.

Que. 2. What is anatomy? Describe Scope of anatomy.

Que.3.What is vascular tissue? Describe elements, structure & functions of xylem & phloem.

Plant physiology FYBSc Botany Roll no:-104

Page No.
Date

Assignment.

Q1 What is plant physiology? Describe scope of plant physiology.

→ Plant physiology is the study of plant function, processes and behavior. like photosynthesis, plant Nutrition, respiration plant harmone. transpiration, environmental stress, plant water relation, etc.

Scope of plant physiology:-

- Role of minerals in plant nutrition is useful in rational usage of chemical fertilizers and control of mineral deficiencies.
- knowledge on role of plant harmones is useful in.
  a) herbicidal contol of weeds.
  b) breaking seed dormancy.
  c) enhancement of shelf life period of leafy vegetables.
  d) Artificial ripening of fruits.
  e) Rooting of stem stulting for vegetative propogation.

Q2 What is diffusion? Describ factor affecting diffusion & importance of diffusion.

→ The process of movement of a substance from the region of higher concentration to the regionof lower concentration so as to spread uniformly is called diffusion

Diffusion is passive movement & plays an important role in cellular transport in plants.

Rate of diffusion of affected by:-

a) concentration gradient:- diffusion takes place as long as there is a difference between the concentration of substance across a barrior.

b) Membrane permeability :- diffusion rate increases as membrane permeability increases.

c) temperature.

d) Pressure:- pressure plays on important role in the diffusion of gases, as gases diffuse form region of high partial pressure to region lower partial pressure.

Importance of diffusion:-

a) facilitate the exchange of gases through stomata.
b) enable the process of transpiration.
c) allows for the absorption of ions through simple diffusion.
d) It helps in keeping the internal tissues of plant moist.
e) It aids in the diffusion of aromatic compounds from flowers attracting insects.

Q3 What is plat cell wall ? Describe structure and functions of cell wall.

→ Cell wall is the outermost, rigid, protective and supportive layer found in all plant cells.

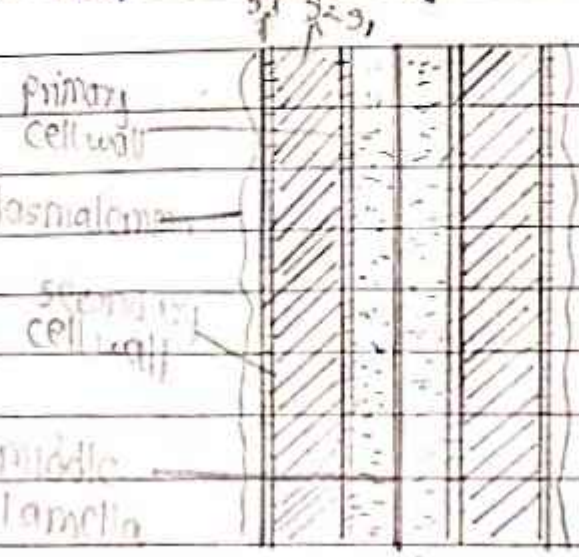
structure of plant cell was is formed of two coats:-

a) Primary cell wall:- outer thinner (1-3 um), elastic and living coat present in the meristematic and parenchymatous cells

It is chemically formed of cellulose, hemicellulose proteins and proteins.

b) secondary cell wall:-
- It lies inner to primary cell wall only in mature and non-dividing and like trachids and sclerenchyma cells.
- It is thicker and formed of three layers called S_1, S_2 & S_3 in which the macrofibrbes are oriented in different directions.
- It is chemically active formed of cellulose, hemicellulose and is further deposited with waterproof subrin in cork cells on cutin on all aerial parts of plant on lignin of woody plants on silica in grasses.
- Middle lamella is then binding layer between the cell wall of dificient plants cells and is joint secretion of both the cells. It is chemically composed of pectaterf calcium and magnesium.

c) Plasmodemata:- These are cytoplasmic stand which acts as intercellular function between adjacent cells. These help in exchange of materials between cells.



Structure of cell wall

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function of cell wall -

a) It provides protection to inner contents from, mechanical injuries and entry of germs.
b) It provides mechanical supports.
c) It maintain shapes of cell.
d) cell wall of root hair helps in absorption of water and minerals from thesoil.
e) Subrin and cutin present evaporation of water.
f) It presents under expansion of the cells.

Assigment (Botany paper-1)

Plant Anatomy and Embryology

S.Y.B.Sc. Rollno: 35

1] What is epidermal tissue system? Describe in detail type of trichomes?

→1] Firstly, the tissues that is performing similar kind of function irrespective of their position in the plant body and known as tissue system.

2] The epidermal tissue system is the outer protective layer in a primary plant body thus protecting the inner tissues.

3] The epidermis remains in direct contact with the environment.

4] The outermost covering of the plant organs is known as the epidermis.

5] Therefore, the epidermal tissue adjusts itself to its surroundings.

6] All the components of epidermis such as epidermis, epidermal outgrowth like glandular and non-glandular hairs, stomatal complexes and their thickening etc. are together reffered as epidermal tissue system.

7] The epidermals cells of most plant grow out in the form of hairs or trichomes.

8] The trichomes are of many types, such as stinging trichomes, laticiferous trichomes, non-glandular trichomes, glandular trichomes, stellate glandular, branched glandular, non-glandular peltate trichomes and glandular peltate trichomes

Some important types of outgrowth are as follows:

1] Non-glandular hair or trichomes:

1] These are hairs that originate from the epidermis. It has two regions, the basal part called foot and apical part called as the body.

2] Trichomes may be unicellular or multicellular.

3] Trichomes may occur on all parts of a plant.

4] They persist throughout the life of an ~~dymen with~~ organ or may eventually be lost.

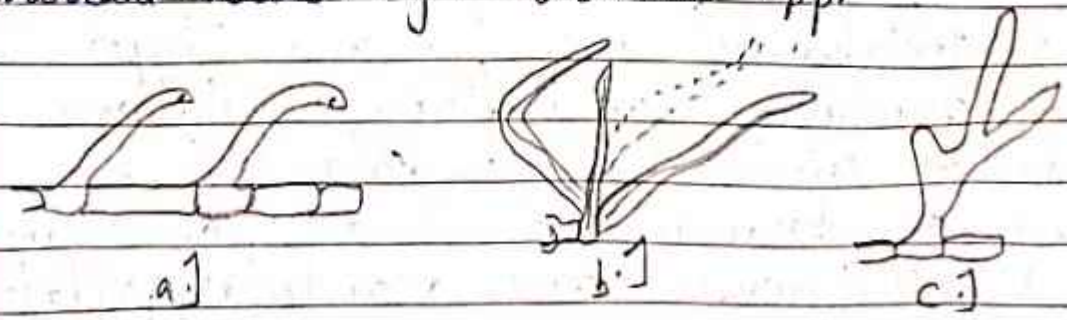
5] Unicellular hairs are categorised into following types: 1] Unicellular unbranched
eg. Maize, etc.
2] Unicellular branched

6] Multicellular hair may consist of a single row of cell known as uniseriate. eg: ly copersicon

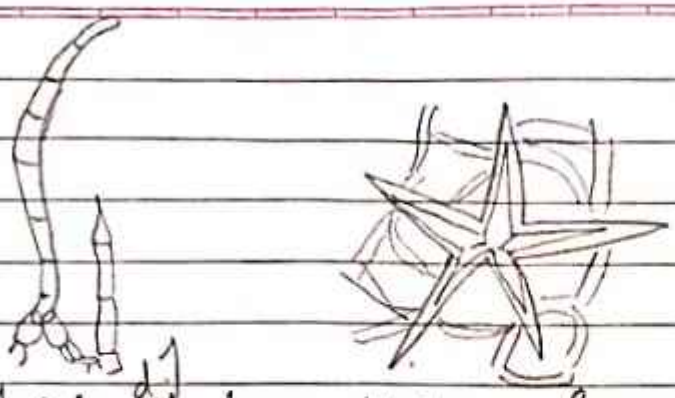
7] Multicellular hairss with more than one row of cell are known as multiseriate.
eg: Portulaca.

8] Unicellular hair forming a single bunch is known as tufted hairs.

9] other common types of trichomes observed in the member of family Malvaceae are stellate hairs. eg: Hibiscus spp.



a.] b.] c.]



d] e

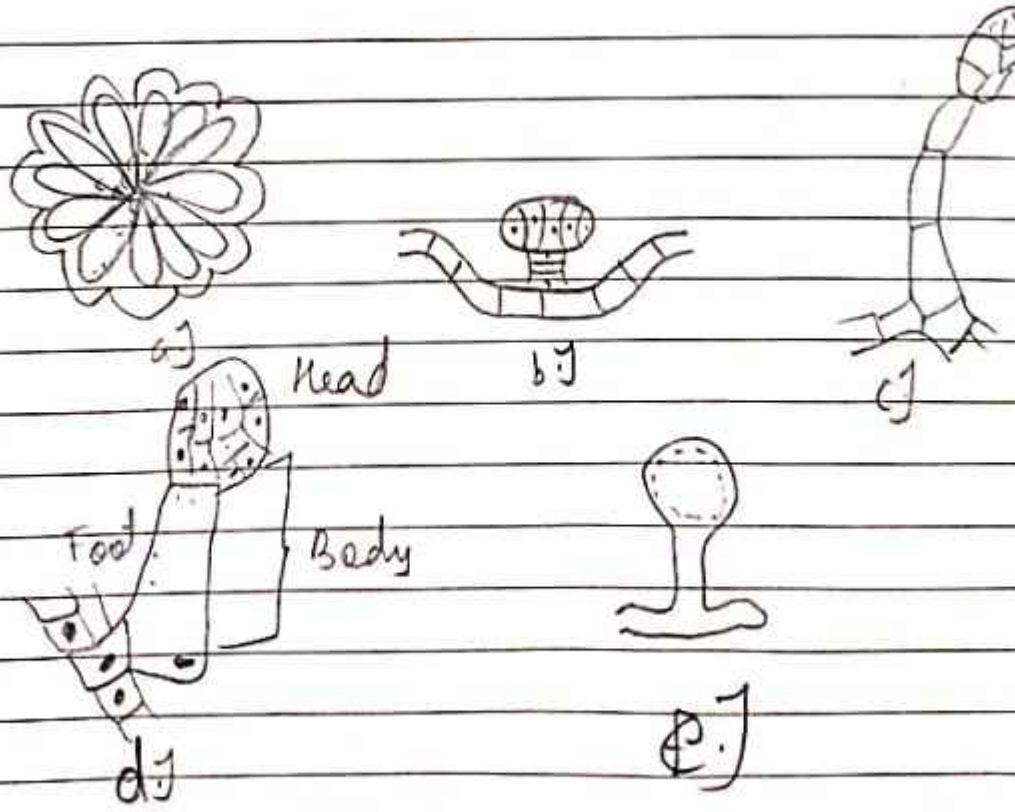
2] Glandular Hairs:

1] uniellular, multiellular and peltate hair may be glandular. The simple multiellular glandular hair consist of a stalk and a uniellular or multiellular head.

2] The head of the hair is secretory in function.

3] In peltate glandular trichome and discoid plate is made up of glandular cells.

4] They are secretory in function eg: Ocimum



a] b] c]

d] e]

2] What is anatomy? Describe Scope of anatomy

→ 1] The study of gross internal structure or characters of the plant and its organ is known as 'Anatomy'.
2] It is derived from the Greek word ana- up and temnein - to cut.
3] The method of studying internal structure of the plant organs by section & cutting or dissecting is known as 'Anatomy'.

Scope of Plant Anatomy:

The knowledge of anatomy is applicable in the various fields of life science. The important areas are mentioned below;

a] Application in Taxonomy:
1] Anatomical characters such as nature and structure of hair, stomata, epidermal cells, hypodermal region, veins, vascular tissues and medullary rays; etc. help in identification of plant organs as well as the individual plant.
2] Anatomy provides evidences concerning the interrelationships of larger taxonomical group such as family.
3] It provides evidences to establish the real affinities of genera of uncertain taxonomic status.

b] Applications in Physiology:
1] Physiology deals with the study of metabolic processes in plants.
2] It helps to understand the concepts of

osmosis, ascent of sap, water and mineral absorption, nature and position of tissues.
3] It helps to understand the concept of photosynthesis, due to the knowledge about the presence of the chlorophyllous tissues.
4] To understand the effect of light, mineral elements, plant hormones, etc.

c] Applications in Phylogenetic studies:
1) Anatomical study of the vascular tissues have proved to be more valuable in the phylogeny of vascular plant.
2] Presence of xylem with tracheids and vessels is a advanced character, while absence of vessels is a primitive character.
3] Protostele is primitive one while siphonostele and eustele are advanced character.

d] Applications in Ecological Interpretation:
1) Every plant interact with the environment in which it lives.
2) This leads to change in the morphological, anatomy and physiology of the plant.
3) Such change in character is called as ecological adaptations.
4] Absence of stomata, poorly developed mechanical tissues and conducting tissues, these characters indicate the hydrophytic nature of the plant.
5) Presence of sunken stomata, cuticle, sclerenchymatous hypodermis well developed conducting tissues indicates xerophytic nature of the plant.

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e] Applications in Pharmacognosy:

1] Majority of the crude drugs are obtained from the plants, as plants parts are known as organised crude drugs.
2] Many anatomical methods are used in the identification of crude drugs and also in detecting the adulterants. Methods used in such study are:
1] Section cutting 2] Clearing and peeling
3] Maceration 4] Micrometry 5] Phytochemical and histrochemical testing.
3] Clearing and peeling is carried in case of leaf drugs.
4] Maceration is generally practiced for stem, wood and bark drugs.
5] By micrometry techniques, size of the fibres, vessels, spores, etc. can be measured.

f] Application in Wood Identification:

1] Application of anatomy in the identification of wood is a common practice.
2] Identification of the wood with external characters is not possible in majority of types.
3] These characters are mainly:
1) Pattern of secondary growth.
2] Position and nature of the growth rings.
3] The presence or absence of and nature of the sclerenchyma of pericycle.
4] Types of wood parenchyma.

3.] What is vascular tissue? Describe elements, structure & functions of xylem & phloem.

→ 1.] Tissue is defined as a group of structurally and functionally similar cells.
2.] The vascular system of the plant body consists of xylem and phloem.
3.] The vascular system is derived from procambium and conducts water, whereas phloem is exterior to the cambium and food conducting tissue.

1) Xylem: 1) Xylem is a complex tissue, which is made up of four different types of cells.
2.] It consists of tracheids, Xylem vessels, wood fibers, xylem parenchyma.
3.] Xylem is the one of the important conducting vascular tissues of the vascular system.
4.] It is found in angiosperms and pteridophytes.

Structural elements of xylem:
1.] Tracheids: 1) Tracheids is an elongated cell with tapering, rounded or oval ends.
2) The walls and lignified are not very thick. It is without protoplast and non-living on maturity.
3.] The tracheids of primary xylem have sharp angular sides than the secondary xylem.

Functions:
1) Tracheids perform a mechanical function because of the hard and lignified walls.

2.] Tracheids conduct water and mineral nutrients from roots to the leaves.

2.] Xylem vessels: 1.] Xylem vessels are found in angiosperms order Gnetales of gymnosperms and the genus Selaginella and genus Pteridium of the pteridophytes.
2.] Vessels are very long are made up of a number of cells arranged one above the other with perforations in the common walls.
Functions:
1.] The main function of vessels is conduction of water.
2.] They also provides mechanical support due to their lignified wall thickenings.

3.] Wood fibres: 1.) These are found in primary and secondary xylem.
2.) They are also called as libriform fibres.
3.) Wood fibres are derived from tracheids.
4.] Wood fibres are found in secondary xylem in small quantity.
Function:
1.) Wood fibers perform a mechanical function because their walls are thickened and lignified.

4.] Wood Parenchyma: 1.) These are found in primary and secondary xylem.
2.) In primary xylem, major portion of the xylem is made up of xylem parenchyma.
3.] Xylem parenchyma cells are living.

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Functions: 1] The xylem parenchyma cells acts as storage of food in the form of starch.
2] Tannins, crystals and various other substances are deposited in xylem paranchyma.
3] These cells help directly or indirectly in the conduction of water upward through the vessels and tracheids.

Structure and funtional elements of Phloem:

1] Phloem is a complex tissues made up of sieve tubes, companion cell, phloem parenchyma and phloem fibres.
2] In the pteridophytes and gymnosperms only sieve cell and phloem parenchyma occur.
3] In angiosperms, all phloem elements, sclereids and secretory cells are present.
3] The phloem is also known as bast.

Sieve cells:
1] Sieve cells are less specialized tubular structure with tapering ends and lack sieve plates.
2] Phylogenetically the sieve cells are more primitive than the sieve tubes.
3] The cell walls are thin and made up of cellulose.

Funtion:
1] Transportation of organic material.

2] Companion cells:
1] Companion cells are specialised type of parenchymatous cell closely associated with sieve tube cells.
2] They are absent in pteridophytes and gymnosperms.
3] The companion cells occur only in angiosperms.
4] They do not contain starch.
Functions:
1) It controls the passage of material between the sieve tube cell and other tissues of the plant body.
2] It plays a major metabolic role in the maintenance of a fully functional sieve tube.

3] Phloem Parenchyma:
1] The parenchymatous cells which occur in primary and secondary phloem are called phloem parenchyma.
2] These cells are concerned with the storage of food like starch and fat.
3] In many plants, tannins and resins also accumulate in these cells.
4] The walls of phloem parenchyma cells have numerous primary pit fields.

Functions:
1) It acts as a storage of food like starch and fa
2] It also aids as storage of tannins and other substance.

4] Phloem Fibres:

1] These are the non-living components of phloem.

2] In many angiosperms, phloem fibres form a prominent part of both primary and secondary phloem.

3] They are not found in phloem of living Pteridophytes and Gymnosperms.

4] These fibres may store food material.

Functions:

1] The phloem fibres are used in the manufacture of cords, ropes, mats and clothes. Therefore, they are of great commercial significance.

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DEPARTMENT OF BUSINESS ECONOMICS

ASSIGNMENTS

DEPARTMENT OF BUSINESS ECONOMICS

ACADEMIC YEAR 2019-20

F. Y. B.COM
SEMESTER- 1 **TIME: 90 Min. Marks: 30**

Class: F.Y.B.Com Semester : I (Credit Pattern 2019)
Sub: Business Economics (Micro) Subject Code :113

Q1) Fill in the Blanks **(10x1 Marks)**

1) Economics is
   a) Social Science
   b) Philosophy
   c) Moral Science
   d) None of the above

2) Demand curve slopes.....
   a) a) Positive
   b) Negative
   b) c) Vertical
   d) Horizontal

3) Indifference curves are
   a) Parallel to Origin
   b) Concave to origin
   c) Convex to origin
   d) 1 and 3

4) Types of Elasticity are
   a) Price Elasticity
   b) Income Elasticity
   c) Cross Elasticity
   d) All of the above

5) Tools for economic analysis are
   a) a) Equations
   b) Graphs
   d) Schedules
   d) All of the above

6) The next best alternative to scarify is called
   a) Marginal Cost
   b) Average Cost
   b) Opportunity Cost
   d) Total Cost

7) The subject matter of micro economics is in the determination of
   a) a) Price
   b) Consumer Equilibrium
   b) c) Distribution and welfare
   d) All of the above

8) Want satisfying power of a commodity is known as
   a) Total Utility
   b) Marginal Utility
   c) Utility
   d)Time Utility

9) When marginal utility reaches zero, total utility reaches
   a) Maximum b) Minimum
   b) Medium d) constant

10) Other things remaining the same, the quantity of _____ decreasing then increasing in quantity demanded
   a) Price b) Utility (c) Export d) Quantity

Q2) Write your answer in 200 words (Attempt any 2) (20x2 Marks)

a) Define Business Economics. Explain Nature and scope of Business Economics
b) Write down the characteristics of Indifference Curve.
c) What is Demand? Explain Law of Demand and Its limitations

ACADEMIC YEAR 2019-20

F. Y. B.COM
SEMESTER- II **TIME: 90 Min. Marks: 30**

Class: F.Y.B.Com Semester : II (Credit Pattern 2019)
Sub: Business Economics (Micro) Subject Code :123

Q1) Fill in the Blanks (10x1 Marks)

1) Short run indicates
   a) Some factors are fixed while others are variable
   b) Some factors are variable while others are neutral
   c) Some factors are fixed while others are also fixed
   d) None of the above

2) Average cost curve is
   a) U shaped
   b) L shaped
   c) Straight line
   d) None of the above

3) In perfect competition goods are
   a) Different
   b) Same
   c) Few are same
   d) Few are different

4) Features of Monopoly is/are

a) Homogeneous good
b) No close substitute
c) Price maker
d) Both 2 and 3

5) Kinked demand curve developed by
a) Paul Sweezy
b) Keynes
c) Fisher
d) None of the above

6) Ricardo's theory is related with
a) Land
b) Capital
c) Profit
d) All of the above

7) Labour gets the reward as
a) Interest
b) Wages
c) Profit
d) Rent

8) Marshall introduced the terms
a) Demand
b) Supply
c) Quasi rent
d) All of the above

9) Liquidity Preference Theory of Interest is Developed by
a) Knut Wickcell
b) J.M.Keynes
c) J.B.Say
d) None of the above

10) Innovation indicates
a) New concept
b) New technology
c) New product
d) All the above

Q2) Write your answer in 200 words (Attempt any 2) (20x2 Marks)

a) What is cost function? Interrelation between TC, AC, AND MC ?
b) Explain Short run and long run equilibrium under perfect competition with diagram.
c) Explain type of markets/ classification of Market (with Diagram)

ACADEMIC YEAR 2019-20

S.Y. B.COM
SEMESTER- III **TIME: 90 Min. Marks: 30**

Class: S.Y.B.Com Semester : III (Credit Pattern 2019)
Sub: Business Economics (Macro) Subject Code :203

Q1) Fill in the Blanks **(10x1 Marks)**

1) NNP is equal .....
   a) GNP – Depreciation
   b) GNP + Depreciation
   c) GNP –Net Export
   d) GNP + Net Export

2) GNP includes .....
   a) Consumer Goods and Services
   b) Gross Private Domestic Investment
   c) Goods and Services Produced by Government
   d) All of the above

3) Macro Economic approach analyzing.....
   a) Top-Down Approach
   b) Down-Top Approach
   c) Horizontal Approach
   d) None Of These

4) An increase in the overall level of price in an economic is referred to as ..... Economic
   a) Growth
   b) Inflation
   c) Price Effect
   d) Demand Effect

5) Income Method of National Income Exclude ……
   a) Wages
   b) Equity Shares
   c) Capital Earns
   d) Rent

6) ……..Is Objective of Marco Economic Policies
   a) Full Employment
   b) High Production
   c) Price Stability

d) All of above

7) Per Capita Income Calculation Of .....
a) National Income Of Country / Total Population
b) Total Population /National Income Of Country
c) Total Production /National Income
d) National Income /Total Production

8) Macroeconomic Theory Include.....
a) Theory of International Trade
b) Theory of General Price Level
c) Theory of Employment
d) All of These

9) "Macroeconomic deals with the functioning of the Economy as a whole", according to .....
a) Kenneth E. Boulding
b) Prof. Huge Gardner Ackley
c) Rudigerdornbusch
d) Prof. Carl Shapiro

10) Monetary Policy Tools are .....
a) Open Market Operation
b) Allocation Of Tax
c) Credit Control Policy
d) a and c

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**
a) Objectives Macro Economic
b) Explain the circular flow of National Income with Diagram.
c) Explain in details meaning of consumption function with Diagram.

ACADEMIC YEAR 2019-20

S.Y. B.COM
SEMESTER- IV **TIME: 90 Min. Marks: 30**

Class: S.Y.B.Com Semester : IV (Credit Pattern 2019)

Sub: Business Economics (Macro) Subject Code : 243

Q1) Fill in the Blanks **(10x1 Marks)**

1) _____ is primary function of money
   a) Standard of deffered Payments
   b) Medium of Exchange
   c) Both a & b are Correct
   d) None the above is Correct

3) Keynes Speculative Demand for Money is related to _____
   a) Money as a measuring value
   b) b. Money as medium of exchange
   c) c. Liquidity Preference for Money
   d) d.None of above is correct

3) M1= _____
   a. Currency in Circulation
   b. Currency with Public
   c. Currency in Circulation +Demand Deposits with Banking System + other Deposits with RBI
   d. All the above is Correct

4) M3 = _____
   a. Total Coins & currency available Public
   b. Currency with Public + Deposits with Banks
   c. M1 + Time deposits withBanks
   d. All the above is Correct

5. The Credit Control measures of RBI are _____.
   a) Qualitative & Selective Credit Control Measures
   b) Quantitative & Qualitative Credit Control Measures
   c) Both a & b are Correct
   d) None of above is correct

6. Inflation is _____
   a) High Price
   b) Rise in Prices
   c) Continuous rise in general prices
   d) None of above is correct

7)_____ put forth concept of 'inflationary Gap'
   a) Keynes
   b) Hicks
   c) Pigou
   d) Marshall

8. _____ is the cause of Inflation.
   a) Expansion of Money Supply
   b) Expansion of Production
   c) Both a & b are Correct
   d) None of above is correct

9. Stagflation is _____
   a) Inflation
   b) Deflation
   c) Inflation along with Stagnation
   d) All the above is Correct

10. Deflation is opposite of _____
   a) Inflation
   b) Stagflation
   c) Both a & b are Correct
   d) None of above is correct

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**
   a) Explain supply and money with credit creation of commercial banks, Money measures of RBI, Credit Control methods.
   b) Meaning causes and consequences of inflation.
   c) Explain Scope and Importance of Public Finances

ACADEMIC YEAR 2020-21

F. Y. B.COM
SEMESTER- 1 **TIME: 90 Min. Marks: 30**

Class: F.Y.B.Com Semester : I (Credit Pattern 2019)
Sub: Business Economics (Micro) Subject Code : 113

Q1) Fill in the Blanks **(10x1 Marks)**

1) The next best alternative to scarify is called
   a) Marginal Cost b) Average Cost
   c) Opportunity Cost d) Total Cost

2) Consumer maximize the satisfaction when
   a) Total utility of X / Price of X = Total utility of Y/ Price of Y
   b) Total utility of X = Total utility of
   c) Marginal utility of X = Marginal utility of Y

d) Marginal utility of X/ Price of X = Marginal utility of Y/Price of Y

3) The subject matter of micro economics is in the determination of
a) Price
b) Consumer Equilibrium
c) Distribution and welfare
d) All of the above

4) In economics, absence of change in movement denotes
a) Equilibrium
b) Consumer surplus
c) Unlimited wants
d) None of the above

5) Want satisfying power of a commodity is known as
a) Total Utility
b) Marginal Utility
c) Utility
d)Time Utility

6) Gossen's first law is also known as
a) Law of Diminishing Marginal Utility
b) Law of Equi-marginal Utility
c) Law of Demand
d) Law of Supply

7) When marginal utility reaches zero, total utility reaches
a) Maximum
b) Minimum
c) Medium
d) constant

8) Exceptions to the law of diminishing marginal utility
a) Rare collection
b) Miser person
c) Stock of other goods
d) All of the above

9) Other things remaining the same, the quantity of _____ decreasing then increasing in quantity demanded.
a)Price
b) Utility
c) Export
d) Quantity

10) Goals are
a) Economic
b) Non economic
c) Both A and B
d) Normative

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

a) Explain Law of Supply.
b) Explain the tools of analysis used in Business Economics.
c) Explain law of returns to scale.

ACADEMIC YEAR 2020-21

F. Y. B.COM
SEMESTER- II **TIME: 90 Min. Marks: 30**

Class: F.Y.B.Com Semester : II (Credit Pattern 2019)

Sub: Business Economics (Micro) Subject Code :123

Q1) Fill in the Blanks **(10x1 Marks)**

1) Which of the following statements is true about a monopolist?
   a) Monopolist is a price taker
   b) Monopolist is a price maker
   c) Monopolist is a price acceptor
   d) None of the above/ वरीलपैकी नाही

2) The condition in which market supply matches market demand is called
   a) Equalization
   b) Normalization
   c) Equilibrium
   d) None of the above

3) A new firm can easily enter a/an_____ market
   a) Oligopoly
   b) Monopoly
   c) Perfect competitive
   d) Duopoly

4) Under perfect competition price is determined by
   a) Total demand and supply
   b) Price leader
   c) The government
   d) Dominant seller

5) Which of the following statements is correct ?
   a) Oligopoly is a market that has a few large firms
   b) Monopoly is a market that has a few large firms
   c) Duopoly is a market that has a few large firms
   d) Perfect competition is a market that has a few large firms

6) In the long run a firm in monopolistic competition will earn…
   a) Excess profit
   b) Loss
   c) Normal profit
   d) May earn any of the above

7) Cartel formation is most likely to happen under?
   a) Perfect competition
   b) Monopoly
   c) Oligopoly
   d) Monopolistic competition

8) A firm in monopolistic market require to incur which cost as promotional expenses?
   a) Production cost
   b) Selling cost
   c) Storage cost
   d) Transport cost

9) Under monopoly excess profit is earned when
   a) AR> AC
   b) AR= AC
   c) AR< AC
   d) AR+AC

10) Under perfect competition a firm's equilibrium output is product at a point where
   a) MC=MR
   b) MC> MR
   c) MC<MR
   d) MC+MR

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**
   a) Explain type of markets/ classification of Market (with Diagram)
   b) Explain the characteristics of perfect competition.
   c) Explain Long run Average cost curve is always U shaped.

ACADEMIC YEAR 2020-21

S.Y. B.COM
SEMESTER- III **TIME: 90 Min. Marks: 30**

Class: S.Y.B.Com Semester : III (Credit Pattern 2019)

Sub: Business Economics (Macro) Subject Code :203

Q1) Fill in the Blanks **(10x1 Marks)**
1) Disguised Unemployment
   a) Marginal Productivity is Equal to Zero
   b) Marginal Productivity is Equal to One

c) Average Productivity is Equal to Zero
d) Average Productivity is Equal to One

2) Which Sector Not Include in Circular Flow Of Income In Two sector model
   a) Open Economy
   b) Foreign Trade
   c) No Government Interferences
   d) Saving Allowed

3) Which of The Following is Included in the Circular Flow If Income
   a) Real Flow
   b) Money Flow
   c) Both
   d) None Of These

4) …….. Following method is adopted in measuring National Income
   a) Product Method
   b) Income Method
   c) Expenditure Method
   d) All Of Above

5) The organization conducts national income measurement in India every year
   a) Income Committee
   b) Central statistical Organization
   c) World Trade Organization
   d) None of these

6) Why are The Intermediates Goods Not Included in The National Income Wile Measuring National Income
   a) To avoid Double Accounting
   b) It Decreases Income
   c) Intermediate Goods are Not Goods
   d) All of These

7) ...The Following Is Included in Circular Flow
   a) Real Flow
   b) Money Flow
   c) Both A And B
   d) None of These

8) ..... Concept of National Income
   a) Flowing
   b) Stocks
   c) Flows and Stocks
   d) None of The Above

9) .....Father of Modern Economic
   a) Adam Smith
   b) J. M. Keyness
   c) Samuelson
   d) Hicks

10) To Compute National Income in India, Financial Year is From ....To ....
   a) 31 March to 1 April
   b) 1 April to 31 March
   c) 30 June to 1 July
   d) 1 January to 31 December

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

a) Describe the Criticism on classical theory of Employment.
b) Explain the importance significances and limitation of Macro Economic
c) Explain the concept of national Income and its features
   (GDP, GNP, NDP, NNP, PCI, PI and DI)

ACADEMIC YEAR 2020-21

S.Y. B.COM
SEMESTER- IV **TIME: 90 Min. Marks: 30**

Class: S.Y.B.Com Semester : IV (Credit Pattern 2019)

Sub: Business Economics (Macro) Subject Code :243

Q1) Fill in the Blanks **(10x1 Marks)**

1) Trade Cycle is also called _____
   a) Recovery Cycle
   b) Depression Cycle
   c) Boom Cycle
   d) Business Cycle

2) Trade Cycle passes through periods of_____
   a) prosperity and adversity
   b) Only Prosperity
   c) Only Depression
   d) Only Recession

3) Recovery of Economy starts after _____
   a) Prosperity
   b) Depression

c) Revival
d) All of the above Correct

4) Phases of Trade Cycle are _____
a) Prosperity, Recession ,Depression & Recovery
b) Expansion , Downfall, Recovery
c) Expansion , Contraction ,Revival Depression …
d) All of the above is Correct

5) _____ are remedial measures for Trade Cycle
a) International Policy
b) Interstate Policy
c) Inter Regional Policy
d) Monetary & Fiscal Policy

6) _____ is the most important function of Public Finance
a) Stabilisation
b) Development
c) Revenue Generation
d) Expenditure

7) Taxes are broadly Classified as _____
a) lupsum and discriminate taxes
b) Direct and Income tax
c) Property and Income Tax
d) Direct & Indirect Tax

8) Public debt means _____
a) Borrowings of Government
b) Borrowings of Citizens
c) Both a & b are Correct
d) None of above is correct

9) Budget is _____
a) Done to save money
b) Creation of balance between
c) Done to increase Revenue
d) None of above is correct

10) Budget deficit is corrected by _____
a) Increasing Revenue
b) Decreasing Expenditure
c) Stabilizing Development
d) Deficit Financing

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

a) Explain Phillips curve.
b) Explain demand for money with classical and Keynesian Approach.
c) Explain Budget: Meaning and Its types.

ACADEMIC YEAR 2021-22

F. Y. B.COM
SEMESTER- 1 **TIME: 90 Min. Marks: 30**

Class: F.Y.B.Com Semester : I (Credit Pattern 2019)

Sub: Business Economics (Micro) **Subject Code :113**

Q1) Fill in the Blanks **(10x1 Marks)**

1) Demand curve slopes.....
a) Positive b) Negative
c) Vertical d) Horizontal

2) Indifference curves are
a) Parallel to Origin
b) Concave to origin
c) Convex to origin
d) 1 and 3

3) Types of Elasticity are
a) Price Elasticity b) Income Elasticity
c) Cross Elasticity d) All of the above

4) Doctors are example of -------- utility
a) Place Utility b) Size Utility
c) Service Utility d) Time Utility

5) The next best alternative to scarify is called
a) Marginal Cost b) Average Cost
c) Opportunity Cost d) Total Cost

6) The subject matter of micro economics is in the determination of
a) Price b) Consumer Equilibrium
c) Distribution and welfare d) All of the above

7) Gossen's first law is also known as
   a) Law of Diminishing Marginal Utility
   b) Law of Equi-marginal Utility
   c) Law of Demand
   d) Law of Supply

8) Exceptions to the law of diminishing marginal utility
   a) Rare collection
   b) Miser person
   c) Stock of other goods
   d) All of the above

9) Other things remaining the same, the quantity of _____ decreasing then increasing in quantity demanded.
   a) Price/ मूल्य
   b) Utility/ उपयुक्तता
   c) Export/ निर्यात
   d) Quantity/ संख्या

10) Production Function explains the relationship between/ उत्पादन फलन या दोहोंतील संबंध स्पष्ट करते
   a) Income-expenditure
   b) Input-Output
   c) Demand-Elasticity
   d) None of the above

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**
   a) Defined Business Economics. Explain Nature and scope of Business Economics
   b) Explain the law of diminishing marginal utility along with its limitations.
   c) Total, Average and Marginal Production.

ACADEMIC YEAR 2021-22

F. Y. B.COM
SEMESTER- II **TIME: 90 Min. Marks: 30**

Class: F.Y.B.Com Semester : II (Credit Pattern 2019)

Sub: Business Economics (Micro) Subject Code :123

Q1) Fill in the Blanks **(10x1 Marks)**

1) Average cost curve is
   a) U shaped
   b) L shaped
   c) Straight line
   d) None of the above

2) Features of Monopoly is/are
   a) Homogeneous goods
   b) No close substitute

c) Price maker
d) Both 2 and 3

3) Ricardo's theory is related with
   a) Land
   b) Capital
   c) Profit
   d) All of the above

4) Marshall introduced the terms
   a) Demand
   b) Supply
   c) Quasi rent
   d) All of the above

5) Liquidity Preference Theory of Interest is Developed by
   a) Knut Wickcell
   b) J.M.Keynes
   c) J.B.Say
   d) None of the above

6) The condition in which market supply matches market demand is called
   a) Equalization
   b) Normalization
   c) Equilibrium
   d) None of the above

7) Under perfect competition price is determined by
   a) Total demand and supply
   b) Price leader
   c) The government
   d) Dominant seller

8) In the long run a firm in monopolistic competition will earn…
   a) Excess profit
   b) Loss
   c) Normal profit
   d) May earn any of the above

9) Under monopoly excess profit is earned when
   a) AR> AC
   b) AR= AC
   c) AR< AC
   d) AR+AC

10) Labour gets the reward as

a) Interest
b) Wages
c) Profit
d) Rent

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

a) Explain the characteristics of perfect competition
b) Critically examine Ricardian theory and modern theory
c) Explain the concept of revenue in perfect competition and Monopoly

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ACADEMIC YEAR 2021-22

S.Y. B.COM
SEMESTER- III **TIME: 90 Min. Marks: 30**

Class: S.Y.B.Com Semester : III (Credit Pattern 2019)

Sub: Business Economics (Macro) Subject Code :203

Q1) Fill in the Blanks **(10x1 Marks)**

1) Macro Economic approach analyzing.....
   a) Top-Down Approach
   b) Down-Top Approach
   c) Horizontal Approach
   d) None Of These

2) .....Is Objective of Marco Economic Policies
   a) Full Employment
   b) High Production
   c) Price Stability
   d) All of above

3) Per Capita Income Calculation Of .....
   a) National Income Of Country / Total Population
   b) Total Population /National Income Of Country
   c) Total Production /National Income
   d) National Income /Total Production

4) Macroeconomic Theory Include.....
   a) Theory of International Trade
   b) Theory of General Price Level
   c) Theory of Employment

d) All of These

5) Monetary Policy Tools are .....
   a) Open Market Operation
   b) Allocation Of Tax
   c) Credit Control Policy
   d) a And c

6) Disguised Unemployment
   a) Marginal Productivity is Equal to Zero
   b) Marginal Productivity is Equal to One
   c) Average Productivity is Equal to Zero
   d) Average Productivity is Equal to One

7) Which of The Following is Included in the Circular Flow If Income
   a) Real Flow
   b) Money Flow
   c) Both
   d) None Of These

8) The organization conducts national income measurement in India every year
   a) Income Committee
   b) Central statistical Organization
   c) World Trade Organization
   d) None of these

9) ..... Concept of National Income.
   a) Flowing
   b) Stocks
   c) Flows and Stocks
   d) None of The Above

10) NNP is equal .....
   a) Depreciation
   b) GNP GNP + Depreciation
   c) GNP –Net Export
   d) GNP + Net Export

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

a) Explain the importance significances and limitation of Macro Economic
b) Explain in details Keynes Theory of employment. (ADF& ASF)
c) Explain the circular flow of National Income with Diagram

ACADEMIC YEAR 2021-22

S.Y. B.COM
SEMESTER- IV **TIME: 90 Min. Marks: 30**

Class: S.Y.B.Com Semester : IV (Credit Pattern 2019)

Sub: Business Economics (Macro) Subject Code :243

Q1) Fill in the Blanks **(10x1 Marks)**

1) _____ is primary function of money.
   a) Standard of deffared Payments
   b) Medium of Exchange
   c) Both a & b are Correct
   d) None the above is Correct

2) M3 = _____
   a) Total Coins & currency available Public
   b) Currency with Public + Deposits with Banks
   c) M1 + Time deposits with Banks
   d) All the above is Correct

3) Inflation is
   a) High Price
   b) Rise in Prices
   c) Continuous rise in general prices
   d) None of above is correct

4) _____ is the cause of Inflation.
   a) Expansion of Money Supply
   b) Expansion of Production
   c) Both a & b are Correct
   d) None of above is correct

5) Stagflation is _____
   a) Inflation
   b) Deflation
   c) Inflation along with Stagnation
   d) All the above is Correct

6) Recovery of Economy starts after _____
   a) Prosperity
   b) Depression
   c) Revival
   d) All of the above Correct

7) _____ are remedial measures for Trade Cycle
   a) International Policy
   b) Interstate Policy
   c) Inter Regional Policy
   d) Monetary & Fiscal Policy

8) Taxes are broadly Classified as _____
   a) lupsum and discriminate taxes
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9) Budget is _____
   a) Done to save money.
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10) Budget deficit is corrected by _____
   a) Increasing Revenue
   b) Decreasing Expenditure
   c) Stabilizing Development
   d) Deficit Financing

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

Explain meaning and function of Money.
Meaning causes and consequences of inflation.
Explain trade cycle control measures Monetary and fiscal policy.

ACADEMIC YEAR 2022-23

F. Y. B.COM
SEMESTER- 1 **TIME: 90 Min. Marks: 30**

Class: F.Y.B.Com Semester : I (Credit Pattern 2019)

Sub: Business Economics (Micro) **Subject Code :113**

Q1) Fill in the Blanks **(10x1 Marks)**

1) Economics is

a) Social Science
b) Philosophy
d) Moral Science
d) None of the above

2) Demand curve slopes.....

a) Positive
b) Negative
c) Vertical
d) Horizontal

3) Indifference curves are

a) Parallel to Origin
b) Concave to origin
c) Convex to origin
d) 1 and 3

4) Types of Elasticity are

a) Price Elasticity
b) Income Elasticity
c) Cross Elasticity
d) d) All of the above

5) Tools for economic analysis are

a) Equations
b) Graphs
c) Schedules
d) All of the above

6) The next best alternative to scarify is called

a) Marginal Cost
b) Average Cost
c) Opportunity Cost
d) Total Cost

7) When marginal utility reaches zero, total utility reaches

a) Maximum
b) Minimum
c) Medium
d) constant

8) Exceptions to the law of diminishing marginal utility

a) Rare collection
b) Miser person
c) Stock of other goods
d) All of the above

9) Other things remaining the same, the quantity of _____ decreasing then increasing in quantity demanded.

(a) Price
b) Utility
(c) Export
d) Quantity

10) Goals are

a) Economic
b) Non economic
c) Both A and B
d) Normative

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

a) Explain the tools of analysis used in Business Economics.
b) Explain the concept of consumer surplus.
c) Explain Elasticity of Supply.

ACADEMIC YEAR 2022-23

F. Y. B.COM
SEMESTER- II **TIME: 90 Min. Marks: 30**

Class: F.Y.B.Com Semester : II (Credit Pattern 2019)

Sub: Business Economics (Micro) Subject Code :123

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   c) J.B.Say
   d) None of the above

10) Innovation indicates
   a) New concept
   b) New technology
   c) New product
   d) All the above

Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

a) What is cost function? Interrelation between TC, AC, AND MC ?
b) Explain Short run and long run equilibrium under perfect competition with diagram.
c) Explain type of markets/ classification of Market (with Diagram)

ACADEMIC YEAR 2022-23

S.Y. B.COM
SEMESTER- III **TIME: 90 Min. Marks: 30**

Class: S.Y.B.Com Semester : III (Credit Pattern 2019)

Sub: Business Economics (Macro) Subject Code :203

Q1) Fill in the Blanks **(10x1 Marks)**

1) NNP is equal .....
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   b) GNP + Depreciation
   c) GNP –Net Export
   d) GNP + Net Export

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   a) Consumer Goods and Services
   b) Gross Private Domestic Investment
   c) Goods and Services Produced by Government
   d) All of the above

3) Macro Economic approach analyzing.....
   a) Top-Down Approach
   b) Down-Top Approach
   c) Horizontal Approach
   d) None Of These

4) An increase in the overall level of price in an economic is referred to as ..... Economic
   a) Growth
   b) Inflation
   c) Price Effect
   d) Demand Effect

5) Income Method of National Income Exclude ……
   a) Wages
   b) Equity Shares
   c) Capital Earns
   d) Rent

6) ……..Is Objective of Marco Economic Policies
   a) Full Employment
   b) High Production

c) Price Stability
d) All of above

7) Per Capita Income Calculation Of .....
a) National Income Of Country / Total Population
b) Total Population /National Income Of Country
c) Total Production /National Income
d) National Income /Total Production

8) Macroeconomic Theory Include.....
a) Theory of International Trade
b) Theory of General Price Level
c) Theory of Employment
d) All of These

9) "Macroeconomic deals with the functioning of the Economy as a whole", according to .....
a) Kenneth E. Boulding
b) Prof. Huge Gardner Ackley
c) Rudigerdornbusch
d) Prof. Carl Shapiro

10) Monetary Policy Tools are .....
a) Open Market Operation
b) Allocation Of Tax
c) Credit Control Policy
d) a and c

Q2) Write your answer in 200 words (Attempt any 2) (20x2 Marks)

a) Explain the concept of national Income and its features (GDP, GNP, NDP, NNP, PCI, PI and DI
b) Explain in details classical theory of Employment by J. B. Say.
c) Keyness Psychological law of consumption.

ACADEMIC YEAR 2022-23

S.Y. B.COM
SEMESTER- IV **TIME: 90 Min. Marks: 30**

Class: S.Y.B.Com Semester : IV (Credit Pattern 2019)
Sub: Business Economics (Macro) Subject Code :243

Q1) Fill in the Blanks **(10x1 Marks)**

1) _____ is primary function of money
   a) Standard of deffered Payments
   b) Medium of Exchange
   c) Both a & b are Correct
   d) None the above is Correct

b) Keynes Speculative Demand for Money is related to _____
   a) Money as a measuring value
   b) b. Money as medium of exchange
   c) c. Liquidity Preference for Money
   d) d.None of above is correct

3) M1= _____
   a) Currency in Circulation
   b) Currency with Public
   c) Currency in Circulation +Demand Deposits with Banking System + other Deposits with RBI
   d) All the above is Correct

4) M3 = _____
   a) Total Coins & currency available Public
   b) Currency with Public + Deposits with Banks
   c) M1 + Time deposits withBanks
   d) All the above is Correct

5. The Credit Control measures of RBI are _____.
   a) Qualitative & Selective Credit Control Measures
   b) Quantitative & Qualitative Credit Control Measures
   c) Both a & b are Correct
   d) None of above is correct

6. Inflation is _____
   a) High Price
   b) Rise in Prices
   c) Continuous rise in general prices
   d) None of above is correct

7)_____ put forth concept of 'inflationary Gap'
   a) Keynes
   b) Hicks
   c) Pigou
   d) Marshall

8. _____ is the cause of Inflation.

a) Expansion of Money Supply
b) Expansion of Production
c) Both a & b are Correct
d) None of above is correct

9. Stagflation is _____
   a) Inflation
   b) Deflation
   c) Inflation along with Stagnation
   d) All the above is Correct

10. Deflation is opposite of _____
   a) Inflation
   b) Stagflation
   c) Both a & b are Correct
   d) None of above is correct

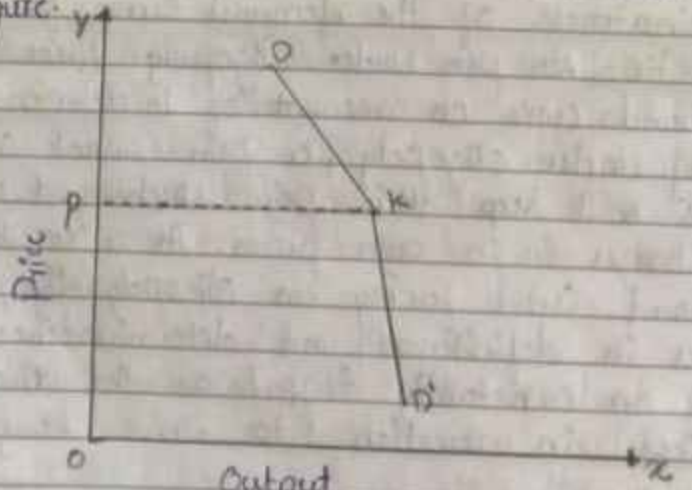
Q2) Write your answer in 200 words (Attempt any 2) **(20x2 Marks)**

a) Explain supply and money with credit creation of commercial banks, Money measures of RBI, Credit Control methods.
b) Meaning causes and consequences of inflation.
c) Explasin Scope and Importance of Public Finances

6. Price rigidity - In an oligopoly / oligopolistic market, each firm sticks to its own price. This is because it is in constant fear of retaliation from rivals if it reduces the price. Therefore it resorts to advertisement competition than price cut. Hence there is price rigidity in an oligopolistic market.

7. Kinked Demand Curve - According to Paul Sweezy, firms in an oligopolistic market face a kinked demand curve (or a kinked average revenue curve). In a sense, there is no revenue function for an oligopolist at all. The amount he sells depends on the price charged by other producers, and unless these can be specified in advance he cannot know what demand for his product will be. The kinked demand curve provides as a simple way of conceiving an average revenue curve for an oligopolist which in turn helps to understand oligopoly pricing problems.

A kinked demand curve is illustrated in the following figure.



Kinked Demand curve.

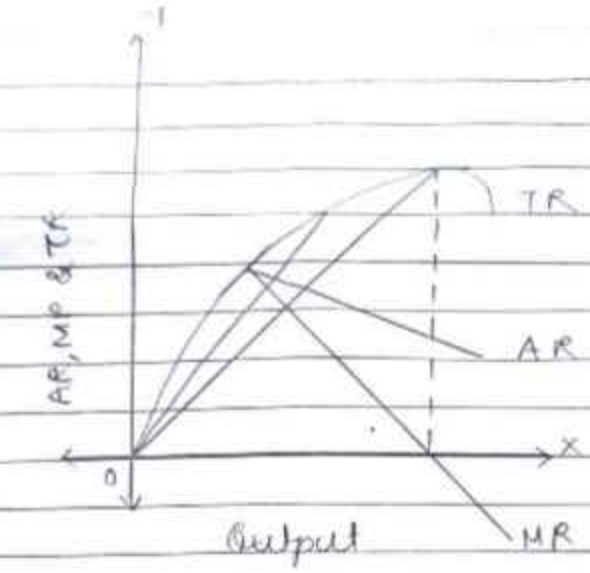
Q-4] Goals of firm.

* Economic Goals or Objectives

1] Profit-Maximisation objectives : Profit means different things to different people. It has a different meaning to business men, accounts, tax collectors, workers and economists. Thus, there are Accounting or business profits and Economic or pure profit.

2] Shareholders' wealth maximisation : An alternative objective to guide resource allocation decision of the firm is shareholder's wealth maximisation or maximising the value of the firm, i.e. maximising the value of the firm's stock. This refers to the present value of the firm's expected future and net earnings or the present value of the stock.

3] Management reward maximisation : Managerials theories of firms postulate that owners and managers are separate entities in large corporations. The dichotomy between the ownership and the management allows managers to



TR, AR and MR in imperfect market Conditions (Monopoly)

AR and MR under perfect Competition:-

Under perfect Competition, the demand curve falling & individual firm is perfectly elastic i.e horizontal to the X-axis at the height of a given price. Under perfect Competition an individual firm cannot influence the the given market price. So it is a price to since the price is beyond the control of a firm. AR remains Constant i.e the price remains Constant as more & more units are sold. So the addition made to TR by selling every additional made to TR. by unit of a commodity will always be equals to the given price. Hence MR will be also remain Constant

AR Curve in this case, is a horizontal straight line parallel to the x-axis. The horizontal straight line or AR curve indicates that price or AR remain the same at OP level even when quality or quan sold is increased.

MR Curve coincides with AR curve since MR = AR.

AR and MR Under Imperfect Competition (Monopol

When imperfect competition prevails in the mark for a product, an individual firm producing that product faces a downward sloping demand cu i.e. as a firm (working under conditions of imp competition) increases production and sale of its product, its price declines. When AR or price declines, MR also falls. So the net additional made to TR will be less than the price or AR. Hence the TR of a firm working under condition of imperfect competition, increases at a diminishi rate. This is shown in the following table.

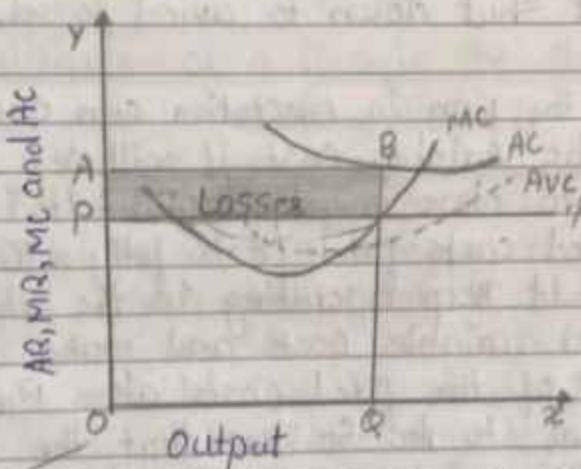
Output (Q)	AR or price	TR = AR × Q = P × Q	MR = $TR_n - TR_{n-1}$
0	-	0	-
1	10	10	10
2	9	18	8
3	8	24	6
4	7	28	4
5	6	30	2
6	5	30	0

In above figure, at price op, the firm is in equilibrium at point E producing output OQ. At point E, AR is also equal to Ac. Hence the firm Make normal profits. [AR = EQ and AC = EQ]. Hence, normal profit

$$TR = EQ \times OQ = opEQ$$
$$TC = EQ \times OQ = opEQ$$

TR = TC, Hence normal profit].

Case of Losses (AR < AC; TR < TC), but firm does not Shut down.



Case of Losses

In above figure at price op the firm is in equilibrium at point E producing OQ output. The AC curve being above the AR Curve; the firm incurs loss per unit of output of BE. [AR = EQ; AC = BQ. Since EQ < BQ, Losses per unit of output = BE.]. For output OQ, the firm incurs loss equal to the area PABE.

10	monetary policy tools are
Ans	Open market operation
11	Disguised unemployment
Ans	marginal productivity is equal to zero
12	which sector not included in circular flow of income in two sector model
Ans	No government interferences
13	which of the following is included in the circular flow of income
Ans	money flow
14	following method is adopted in measuring National Income.
Ans	product method
15	The organization conducts national income measurement in india every year.
Ans	Central statistical organisation
16	why are the intermediates goods not included in the National income w.r.t. measuring income.
Ans	to avoid Double Accounting
17	The following is included in circular flow
Ans	money flow
18	Concept of National income.
Ans	Flowing

10] Monetary Policy Tools are ___
→ (d) a &c

11] Disguised Unemployment ___
→ (a) Marginal Productivity is Equal to zero.

12] Which sector not included in circular flow of Income in Two
→ (i) No Govt. Interference.

13] Which of the foll. is included in the circular flow of Income
→ (c) Both.

14] ___ fol. method is adopted in measuring National Income
→ (a) All of Above.

15] The organisation conducts national income measurement in India every year
→ (b) Central Statistical Organisation.

16] Why are the intermediates goods not included in the National Income while measuring National income.
→ (a) To avoid double counting.

17] ___ the foll. is included in circular flow.
→ (i) Both A & B.

18] ___ concept of National Income
→ (a) Flowing.

19] ___ Father of Modern Economics
→ (a) Adam Smith.

20] To compute National Income, Financial Year is from ___ to ___
→ (a) 1 April to 31 March.

G.E. Society's R.N.C Arts, J.D.B. Commerce and N.S.C. Science college, NASHIK Road.

Quiz No 1 (Internal Exam (Year) 2022-2023)

Class : S.Y.B.Com Semester : III (Credit pattern 2019)

NAME : KADLAG SIDDHESH KISHOR

Class : SY Bcom SUB : Business Economic

Div : C Roll No : 362

1). NNP is equal
a) GNP - Depreciation
b) GNP + Depreciation
c) GNP - Net export
d) GNP + Net export

2). GNP includes
a) Consumer Goods and Services
b) Gross Private Domestic Investment
c) Goods and Services produced by Govt.
d) All of the above

3). Macro economic approach analyzing
a) Top - Down approach
b) Down - Top approach
c) Horizontal approach
d) None of these

NP

10/10

Name : Pekhale Samket Shivaji

Class : S.Y. Bcom Div : C

Sub : Business Economics (Macro)

Roll no : 196

Q.1 NNP is equal ____

→ a) GNP - Depreciation

2. GNP includes ____

→ d) All of these

3. Macro Economics approach analyzing ____

→ a) Top-Down Approach

4. An increase in the overall level of price in an economic is referred to as ____

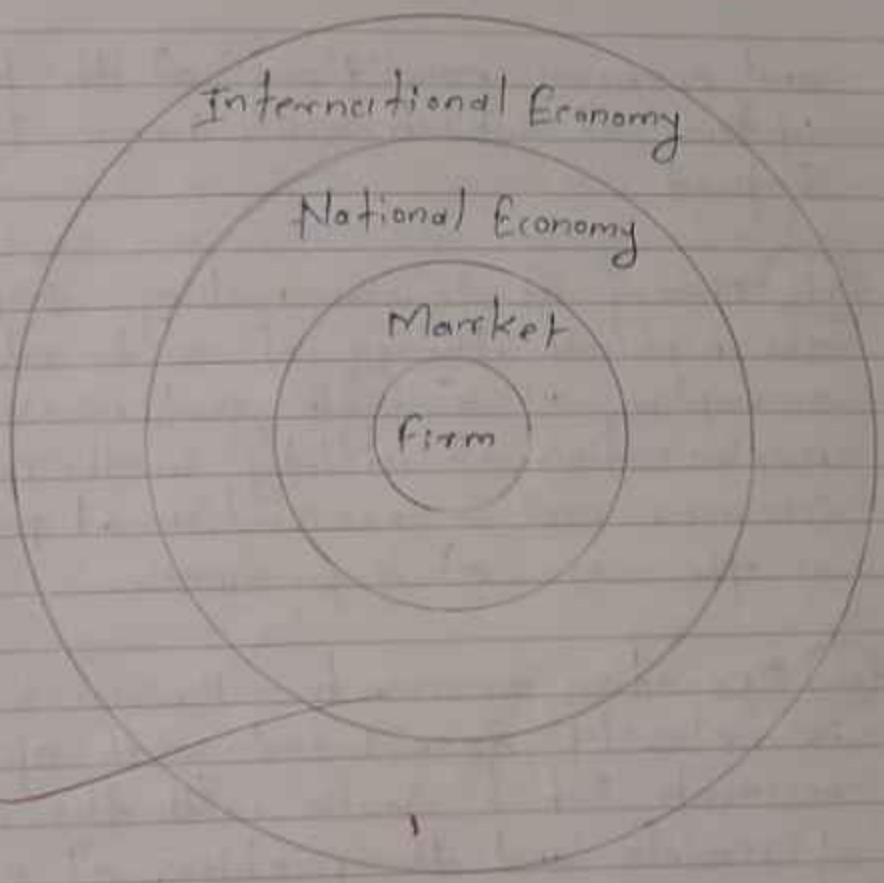
→ b) Inflation

5. ~~An increase~~ Income method of National Income excludes ____

→ b) Equity Shares

6. ____ is objective of Macro Economics Policies

→ d) All of above.



* Scope :-

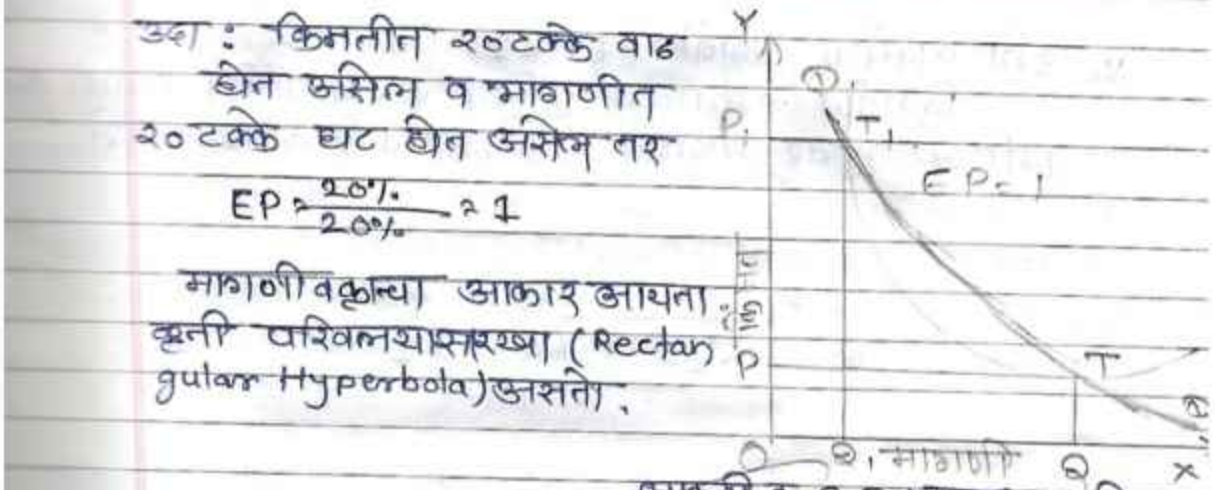
(i) Micro economics :- Micro economics deals with individual consuming units or individua producting units.

(ii) Macro economics :- The macro economics environment comprises of the general socie

उदा : किमतीत २०टक्के वाढ झेत असेल व मागणीत २० टक्के घट झेत असेल तर

$EP = \frac{20\%}{20\%} = 1$

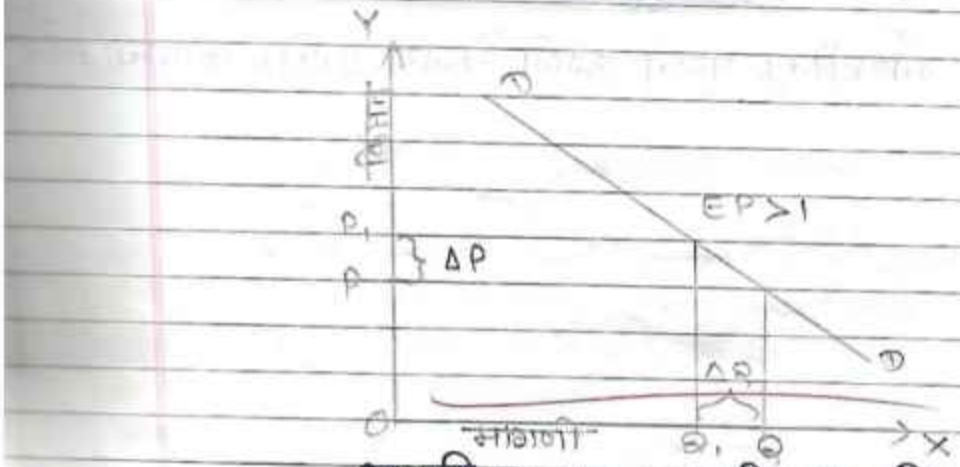
मागणीवक्राचा आकार आयता कृती परिवलयासारखा (Rectangular Hyperbola) असतो.



आकृती क्र. 3.5 : एकक लवचीकता

2. लवचीक मागणी (EP > 1)

किमतीत झेणाऱ्या अल्पशा बदलामुळे मागणीत अधिक मोठ्या प्रमाणात बदल घडून झेत असेल तर तो मागणी वक्र लवचीक असेल. मागणीची लवचीकता एकापेक्षा जास्त असते.



आकृती क्र 3.6 : लवचीक मागणी

उदा : किमतीत २० टक्के घट झेत असेल व त्याला अनुसरून मागणीत ४० टक्के वाढ झेत असेल तर,

$EP = \frac{40}{20} = 2$

मागणीवक्र वरून झालेली झेणारा बदल/कमी उत्पादनाचा

Page No.
Date

बदलत्या प्रमाणाच्या नियमाचे उदाहरणाच्या साह्याने स्पष्टीकरण :

तक्ता क्र 4.2 :

जमीन (स्थिर घटक) (हेक्टर)	श्रमिक संख्या (बदलत्या घटक) (माप्रा)	एकूण उत्पादन (क्विंटल)	सरासरी उत्पादन (क्विंटल)	सीमांत उत्पादन (क्विंटल)	बदलत्या प्रमाणाच्या नियमाच्या अवस्था
2	1	5	5	5	
2	2	12	6	7	प्रथम उत्पा
2	3	21	7	9	दन वाढते
2	4	28	7	7	उत्पादन फल
2	5	30	6	2	
2	6	30	5	0	दुसरी अवस्था
2	7	28	4	-2	घटन उत्पादन फल
2	8	24	3	-4	

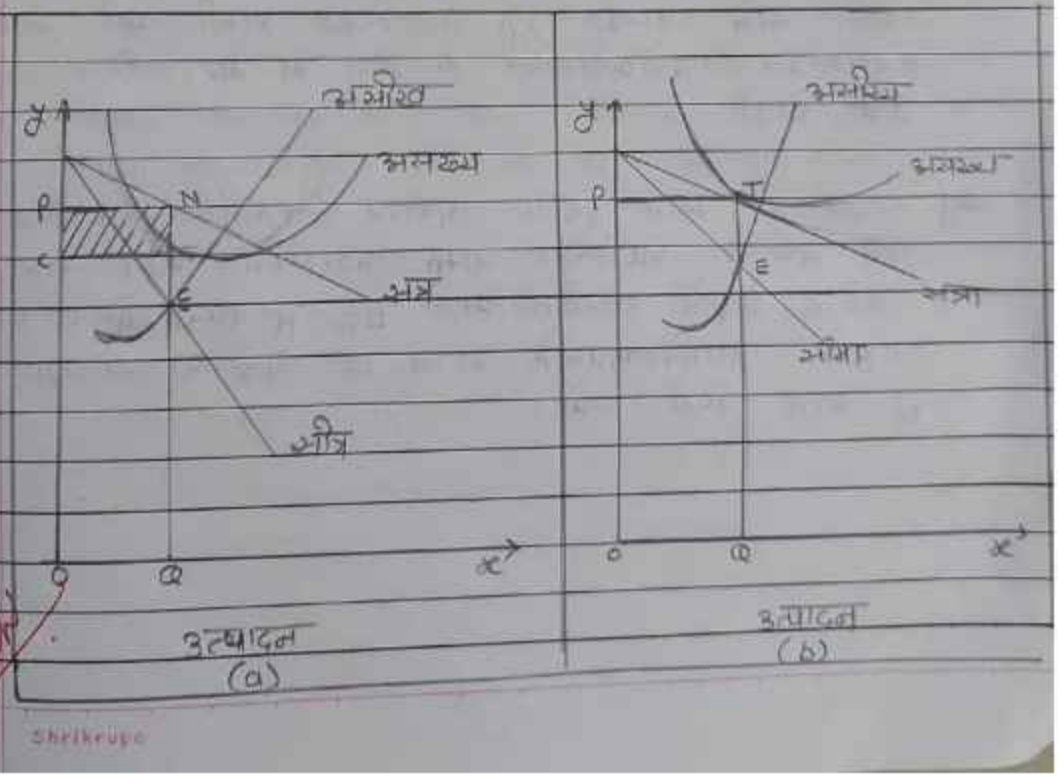
वरील उदाहरणात 'जमीन' हा घटक स्थिर असून जमिनीचे प्रमाण 2 हेक्टर आहे. श्री श्रमिक संख्या हा बदलता घटक असून श्रमिकांच्या संख्येत 1 पासून 8 पर्यंत सारख्या प्रमाणात वाढ केलेली आहे. 'जमीन' या स्थिर घटकाशी 'श्रमिक' या बदलत्या घटकाचे प्रमाण सारख्या बदलत्या स्वरूपाचे एकूण उत्पादन, सरासरी उत्पादन व सीमांत उत्पादनात बदल होतात.

प्र २) किंमत व उत्पादन यांची मक्तेदारी तील निश्चिती स्पष्ट करा.

→ कोणत्याही बाजारातील उद्योगसंस्थेचे उद्दिष्ट महत्तम नफा हे असते. हे उद्दिष्ट विचारात घेतल्याशिवाय उद्योगसंस्थेचा समतोल स्पष्ट करता येत नाही.

मक्तेदारीच्या परिस्थितीत उद्योगसंस्थेचा समतोल नेहमीप्रमाणे सी. प्रा = सी. ख. या अटीने ठरतो. तसेच सी. ख. वक्र सी. प्रा. वक्राला खालून वर छेदतो ही अटदेखील पूर्ण व्हावी लागते.

१) अल्पकालीन समतोल - अल्पकाल हा अतिशय लहान कालावधी असल्याने संयंत्राचा आकार बदलता येत नाही स्थिर घटक अल्पकालात बदलता येत नाहीत. अल्पकालीन समतोलासाठी सी.प्रा सी.ख ही अट आवश्यक आहे. यामुळे अल्पकालात साधारण नफा किंवा तोटा होणे शक्य असते.



NAME:- Sudhir Varma.
Class:- F.Y. B.Com.
Roll no:- 462.
Sub:- Business Economics.

i] Short run indicates.

-> a] Some factors are fixed while others are variable.

ii] Averge Cost Curve is

-> b] U shaped

iii] In perfect competition good are

-> b] Same.

iv] Features of Monophy is lars

-> b] No close substitute and price Market.

v] Kinked demand curve developed by

-> a] Paul Sweezy.

vi] Re Ricards theory is related with

-> b] Capital (a) Land.

[412]

PAGE NO.
DATE :

Name :- Sanket Babasaheb Bukir.
Std :- fy b.Com , Roll NO :- 412
Subject :- Economics
College Name :- Bycto College
Div = D

1] Short run indicates :-
→ a] Some factors are fixed while others are variable.

2] Average cost curve is :-
→ a] U-shaped

3] In perfect competition good are
→ b] Same

4] Features of monopoly is/are.
→ b] No close substitute and price market.

5] Kinked demand curve developed by
→ a] paul Swiezy.

* Name = Rupesh Tajanpure
* Class = FY B Com *DIV = D
* Roll No = 450
* Sub = Business Economics

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1) Short run indicates.
→ a) some factors are fixed while others are variable.

2) Average cost curve is.
→ a) V shaped.

3) In perfect competition good are.
→ b) same.

4) Features of monopoly is/are.
→ b) No close substitute and price Maker.

5) Kinked demand curve developed by.
→ a) Paul Sweezy.

6) Ricardo's theory is related with.
→ b) Capital a) Land.

नाव : अनुपमा -वंजारोबार चुरी

इयत्ता : F.Y.B.com तुकडी : [अ]

रोल नं : [23] विषय : व्यावसायिक अर्थशास्त्र

विषय शिक्षक : प्रा. अनुराग रत्नापरखे सर

Assignment No : 4

प्र.1) खर्च म्हणजे काय ते सांगून खर्चाचे प्रकार स्पष्ट करा. (आठवी महिला)

उ) अर्थ :- वस्तुची किंमत मोजल्यानंतर वस्तू आपणास उपलब्ध होतात. परंतु या वस्तू आपणास कोण उपलब्ध करुन देतात ? वस्तुच्या उत्पादकापासून ते किरकोळ विक्रेत्यापर्यंत वस्तूचा पुरवठा करणाऱ्यांची एक मोठी साखळी असते.

1) व्याख्या :- "वस्तुच्या उत्पादन प्रक्रियेमध्ये पैसे लोक गुंतवलेले असतात. त्यांनी वेगवेगळ्या स्वरूपात केलेल्या त्याग म्हणजे वस्तूचा खर्च होय."

2) कॉस्ट यानी मूल्यात्मकमाने "वस्तू निर्मिती वापरीत गुंतवलेल्या लोकांनी केलेला त्याग म्हणजे उत्पादन खर्च होय."

* खर्चाचे प्रकार :-

1) प्रत्यक्ष / लेखांकन खर्च आणि अप्रत्यक्ष खर्च :- कच्चा माल, यंत्र, यंत्रसामग्री, विविध उपकरणे, कच्चा व पक्का माल्याची वाहतूक, जाहिरातू इ. बाबींवर केला जाणारा खर्च म्हणजे प्रत्यक्ष खर्च होय. व्यावहारिक दृष्टिकोनातून उपयोगकर्त्यांच्या लेखांकन पुस्तकांमध्ये जेव्हा खर्च नोंदविले जातात त्या सर्वांचा समावेश

④ बाजाराचे पूर्ण ज्ञान :-

पूर्ण स्पर्धेच्या बाजारात प्रत्येक ग्राहक व विक्रेत्याला उत्पादन किंमत व वस्तूचा दर्जा यांचे ज्ञान असणे आवश्यक आहे. असे पूर्ण ज्ञान असेल तर कोणताही विक्रेता प्रस्थापित किमतीपेक्षा जास्त किंवा कमी किमत आकारणार नाही व ग्राहकही प्रचलित किमतीपेक्षा जास्त किंमत द्यायला तयार होणार नाही. त्यामुळे एकच-एक किंमत प्रस्थापित होईल.

⑤ वाहतूक खर्चाचा अभाव :-

प्रत्यक्षात उत्पादन केंद्र व बाजार केंद्र यांमध्ये अंतर असल्याने येणारा वाहतूक खर्च किमतीत समाविष्ट केला जातो. त्यामुळे किमत भिन्नता निर्माण होते. परंतु पूर्ण स्पर्धेत भौगोलिक दृष्ट्या उत्पादन क्षेत्र व बाजार क्षेत्र एकत्रीकरणाचा अभाव असणे किंवा वाहतूक खर्च शून्य असणे आवश्यक आहे. तेव्हाच बाजारामध्ये एकच-एक किंमत प्रस्थापित होते. व स्पर्धा पूर्ण अस्तित्वात येण्यास मदत होते.

⑥ उत्पादन घटकांची पूर्ण गतिशीलता :-

उत्पादन घटकांची पूर्ण गतिशीलता याचा अर्थ असा की प्रत्येक घटक एका ठिकाणाहून दुसऱ्या ठिकाणी किंवा एका व्यवसायातून दुसऱ्या व्यवसायात सहजपणे गतिशील असला पाहिजे. त्यामुळे उद्योगसंस्थेला मागणीप्रमाणे पुरवठा वाढवून तेथे सहज शक्य होते. प्रत्यक्षात सर्व घटक पूर्णपणे गतिशील नसतात. पूर्ण स्पर्धा अस्तित्वात येण्यासाठी उत्पादन घटकांची पूर्ण गतिशीलता गृहीत धरावी लागते.

Chapter 4

Q. 1) Explain Scope and Importance of Public Finance.

→ Answer :-

Scope of Public Finance :-

1) Public Revenue :-

Public revenue refers to the total amount of revenue of a government. The study of public revenue concentrates on the methods of raising revenue, various principles of taxation and their problems. In simple words, income from all the sources of the government are included in public revenue. It is the total amount of tax paid by people of the country in the form of income tax, Corporate tax, sales tax, Service tax, duties, etc.

2) Public Expenditure :-

Public expenditure means the spending by government authorities. Government spends money on providing social security, building infrastructure, healthcare, education, etc. for the betterment of the Society. The principles and problems relating to the public expenditure, the objectives and classification of public expenditure, effects of expenditure in different sectors of the economy etc. are important subject matter of this part of public finances.

3) Explain Phillips curve.

Ans. A noted british economist, Alban William phillips published an article in 1958 based on his good deal of researches using historical data of wage inflation & unemployment rates in the united kingdom for about 100 yrs. Tracking the data on curve over the course of a given period revelad an inverse relationship between the unemployment rate was high & more rapidly when the unemployment rate was low.

Thus, phillips curve exhibits an inverse & stable relationship between inflation & level of unemployment in an economy.

Phillips curve draw from the data of 1960s for USA also showed the inverse relationship between the unemployment rate & wage inflation.

Phillips analyzed annual wage inflation & unemployment rates in the united kingdom for the period 1860-1957 and then plotted them on a scatter diagram.

The curve suggested that charges in the level of unemployment have a direct & predicatable effect on the

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Chapeter - 1

1) Explain meaning & function of money.

Ans. Money is something which is widely used and accepted in transactions of goods and services. It is originated in order to overcome the difficulties of barter system and has become an important and indispensable element of modern civilization. In simple words whate we use to pay for things is generally called money.

Functions of Money - In a modern economy, money performs various important functions. professor kinely has classified them as follows:

(a) Primary functions (also called fundamental and original functions) like the medium of exchange and measures of value.

(b) Secondary functions like standard of deferred payments, store of value and transfer of value.

(c) Contingent functions like distribution of income, measurement and maximization of utility, basis of credit creation productivity of capital etc.

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ASSIGNMENTS

DEPARTMENT OF ELECTRONIC SCIENCE

F Y B Sc Assignment
BASICS OF DIGITAL ELECTRONICS

Q1. Convert binary number 1111 to decimal.

Q2. Convert binary number 110101 to decimal number.

Q3. Determine the decimal number represented by binary fraction 0.101.

Q4. Determine the decimal value of the binary number 0.1011.

Q5. Convert binary number 11010.010 into decimal

Q6. Convert decimal number 25 into binary number.

Q7. Convert decimal number 45 into binary number.

Q8. Convert decimal fraction 0.8125 into binary.

Q9. Convert HEX Number (9CA) into binary.

Q10. Convert $(D2E.8)_{16}$ into binary.

Q11. Convert 1100101001010111 binary to hexadecimal.

Q12. Convert $(650)_{10}$ to hexadecimal.

Q13. Convert $(423)_{10}$ to BCD.

Q14. Write De Morgan's theorem

Q15. Convert $(0.357)_{10}$ into hexadecimal

S.Y B Sc Assignment

MICROCONTROLLER AND PYTHON PROGRAMMING

Q1. Write Arduino Program for LED Blinking.

Q2. Write Arduino Program for Push Button Interfacing

Q.3 write Ardunio Program for Serial Communication.

Q4. Write Ardunio Program for intensity control of LED with PWM.

Q5. Write Phyton program for addition, subtraction, multiplication and division using function.

Name:- Manisha
Roll no:- 177
Subject:- Electronic (Paper II)

Assignment

★ Intensity control of LED with PWM

```
void setup ()
{                          // setup code
pinMode (3, OUTPUT);
}
 void loop ()
{
analogWrite (3,0);     // 0% Duty Cycle
   delay (500);
analogWrite (3, 64);   // 25% Duty Cycle
  delay (500);
 analogWrite (3,127);  // 50% Duty Cycle
  delay (500);
analogWrite (3,191);   // 75% Duty Cycle
  delay (500);
analogWrite (3,127);   // 50% Duty Cycle
  delay (500);
analogWrite (3,64);    // 25% Duty cycle
  delay (500);
}
```

★ LED BLINKING

```
void setup ()
{
pinMode (3, OUTPUT);
}
void loop ()
{
```

```
digitalWrite (3, HIGH);
   delay (1000);
digitalWrite (3, LOW);
   delay (1000);
}
```

* Calendar module

```
# to test whether leap year or not
From calendar import *
y= int (input ('entre year: '))
if (isleap (y)):
    print (y, ' is leap year')
else:
    print (y, 'is not leap year')
```

The output of the program is

```
C:\> python leap.py
Entre year: 2020
2020 is leap year.
```

* Python program for addition, substraction multiplication and division using functions:

```
# Addition function
def add (x,y):
    s = x+y
    print ("Addition is: ", s)
# Substraction function
def substract (x,y):
    s = x- y
    print ("Subtraction is: ", s)
```

```
# Multiplication function
def multiply(x,y):
    s = x*y
    print("Multiplication is: ", s)
# Division function.
def division(x,y):
    s = x/y
    print("Division is: ", s)
# Ask for user input
x = int(input("Enter x: "))
y = int(input("Enter y: "))
# Function call
add(x,y)
subtract(x,y)
multiply(x,y)
divide(x,y)
```

Output:

```
Enter x: 20
Enter y: 5
Addition is: 25
Subtraction is: 15
Multiplication is: 100
Division is: 4.0
```

Subject - Microcontroller & python program
Date :- 17/05/2022

Assignment EL - II

Name :- Nagare Shrikant Mukund
Roll no :- 181
Class :- S.Y.B.Sc (Sem - IV)

*) Intensity Control of LED with PWM.

```
Void setup ()
{                          // setup code
pinMode (3, OUTPUT);
}
analogWrite (3,0);  // 0% Duty Cycle
    delay (500);
analogWrite (3,64); // 25% Duty Cycle
    delay (500);
analogWrite (3,127); // 50% Duty Cycle
    delay (500);
analogWrite (3,101); // 75% Duty Cycle
    delay (500);
analogWrite (3,127); // 50% Duty Cycle
    delay (500);
analogWrite (3,64); // 25% Duty Cycle
    delay (500)
}
```

*) LED BLINKING

```
void setup ()
{
pinMode (3, OUTPUT);
}
Void loop ()
}
digitalWrite (3, HIGH);
    delay (1000)
digitalWrite (3, LOW);
    delay (1000)
}
```

*) Calendar module

```
# to test whether leap year or not
    from calendar import *
  y = int (input ('enter year :    '))
    if (is leap (y)):
        print (y, ' is leap year ' )
  else:
      print (y, ' is not leap year ')
```

The output if the program is

```
C:\> python leap.py
Entrer year : 2020
2020 is a leap year.
```

4) Python program for addition, substraction, multiplication and division using functions

```
# Addition function
def add (x,y):
    s = x+y
    print ("Addition is :  ", s)
# Substraction function
def substract (x,y):
    s = x-y
    print ("Substract is :  ", s)
# Multiplication function
def multiply (x,y):
    s = x * y
    print ("Multiplication is :  ", s)
# Division function
def division (x,y):
    s = x/y
    print ("Division is :  ", s)
# Ask for user input
x = int (input ("Enter x:  "))
y = int (input ("Enter y:  "))
# function call
add (x,y)
substract (x,y)
multiply (x,y)
division (x,y)
```

Output :

```
Enter x: 20                    Multiplication is : 100
Enter y: 5                     Division is  : 4.0
Addition is : 25
Substraction is : 15
```

Name - Seema Adke
SYBSc
Roll No. - 176

Page No
Date 6.05.22
YOUVA

Electronics Paper II

Assignment 1

Microcontroller & python programing

* Blink Sketch (LED)

```
Void setup() {
    pinMode (13, OUTPUT);
}
Void loop() {
digital Write (13, HIGH);
delay (1000);
digital Write (13, LOW);
delay (1000);
}
```

* FADE AN LED with pulse width modulation using analogWrite()

```
Void setup(){
   // put your setup code here, to run once:
  pinMode (3, OUTPUT);
}
Void loop(){
   // put your main code here, to run repeatedly;
   // 0% Duty cycle
analogWrite (3, 0);
delay (500);

// 25% Duty cycle
analogWrite (3, 64);
delay (500);

// 50% Duty cycle
analogWrite (3, 127);
delay (500);
```

```
//75% Duty cycle
analogWrite(3, 191);
delay(500);

// 100% Duty cycle
analogWrite(3, 255);
delay(500);

//75% Duty cycle
analogWrite(3, 191);
delay(500);

// 50% Duty cycle
analogWrite(3, 127);
delay(500);

// 25% Duty cycle
analogWrite(3, 64);
delay(500);
}
```

Push button

```
Void loop() {
  // read the state of the pushbutton value:
  buttonState = digitalRead (buttonPind);
  // check if the pushbutton is pressed. If it is, the buttonState
  is HIGH
  if (buttonState == HIGH) {
    // turn LED on:
    digitalWrite (ledPin, HIGH);
  } else {
    // turn LED off:
    digitalWrite (ledPin, LOW);
  }
}
```

Helloworld Program

```
void setup() {
    // put your setup code here, to run once:
    Serial.begin(9600);
    Serial.println("Hello World");
}

Void loop() {
    // put your main code here, to run repeatedly:
}
```

Assignment - 1

Page No.
Date

Electronics Part - I Sem - II

Name : Suraj Ahire
class : F. Y. B. Sc
Roll No : 151
Sub : Basics of digital Electronics.

* Binary to Decimal conversion

Any binary number can be converted into its equivalent decimal number using the weights assigned to each bit position. The rightmost bit (LSB) in a binary number has weight of $2^0 = 1$. The weights increase by power of two for each bit from right to left.

e.g. Binary number 111 becomes.

Binary number → 1 1 1

Binary number → 2^2 2^1 2^0

$= 4 + 2 + 1$

$111 = 7$

Example 1 :- convert the binary number 1111 to decimal.

Solution :-

Binary number	1	1	1	1
Binary number	2^3	2^2	2^1	2^0
weight value	8	4	2	1

$= 1 \times 8 + 1 \times 4 + 1 \times 2 + 1 \times 1$

$= 8 + 4 + 2 + 1$

$= (15)_D$ or $(15)_{10}$

It can be represented as

$(1111)_B = (15)_D$

OR $(1111)_2 = (15)_{10}$

The Subscript ① or 10 identifies decin number and Subscript B or 2 identifies binary number.

Example 2 :- Convert the binary number 110101 decimal number.

Solution :-

Binary number 1 1 0 1 0 1
Binary number $2^5\ 2^4\ 2^3\ 2^2\ 2^1\ 2^0$
weight Value 32 16 8 4 2 1

$= 1\times32 + 1\times16 + 0 + 1\times4 + 0 + 1\times1$
$= 32 + 16 + 4 + 1 = (53)_{10}$

we can also use streamlined method by the following Procedure.

Step 1 1 1 0 1 0 1
Step 2 32 16 8 4 2 1
Step 3 32 16 ~~8~~ 4 ~~2~~ 1

In Step 3 if Zero appears in digit Posi cross out the decimal weight for that Positior

Step 4 $32 + 16 + 4 + 1 = (53)_{10}$

$(110101)_2 = (53)_{10}$

OR $(110101)_B = (53)_①$

The binary numbers we have seen so f have been whole numbers. fractional numb can also be represented in a binary by pla bits to the right of binary Point.

In general, binary number with fractior can be written as

$2^n \ldots 2^4\ 2^3\ 2^2\ 2^1\ 2^0 .\ 2^{-1}\ 2^{-2}\ 2^{-3} \ldots 2^{-n}$

↓ binary Point.

This indicates that all the bits to the left of binary Point have weights that are Positive Power of two.

All bits to the right of binary Point have weights that are negative Power at two or fractional weight.

$2^{-1}, 2^{-2}, 2^{-3}, 2^{-4}$ etc.

↓

binary Point

$\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}$, etc.

0.5, 0.25, 0.125, 0.0625 etc

↓

binary Point.

xample 3: Determine the decimal number represented by binary Fraction 0.101.

olution: First determine the weight of each bit and then sum the weight times the bit.

Binary weight	2^{-1}	2^{-2}	2^{-3}
weight value	0.5	0.25	0.125
Binary number	0.1	0	1

$= 1 \times 0.5 + 0 \times 0.25 + 1 \times 0.125$

$= 0.5 + 0 + 0.125$

$= 0.625$

ample 4: Determine the decimal value of the binary number 0.1011.

olution:

Binary weight	2^{-1}	2^{-2}	2^{-3}	2^{-4}
weight value	0.5	0.25	0.125	0.0625
Binary value	0.1	0	1	1

$= 1 \times 0.5 + 0 \times 0.25 + 1 \times 0.125 + 1 \times 0.0625$

$= 0.5 + 0 + 0.125 + 0.0625$

$= 0.5 + 0.125 + 0.0625$

$= (0.6875)_{10}$

Mixed numbers (numbers with integer and fractional part) each part according to the rules developed.

$1100.1011 = 1 \times 8 + 1 \times 4 + 0 + 0 + 1 \times 0.5 + 0 + 1 \times 0.0625$

$= 8 + 4 + 0.5 + 0.125 + 0.0625 = 12.6875$

$(1100.1011)_2 = (12.6875)_{10}$

Example 5 :- Perform the following: $(11010.010)_2$

Solution :- 11010.010 ← given number

Step :-

i) write the weight 16 8 4 2 1 0.5 0.125 0

ii) Discard the weight whose coeffs are zero 16 8 ~~4~~ 2 1 ~~0.5~~ 0.125 ~~0.625~~

iii) Add the remaining weight $16 + 8 + 0.125 = 26.125$

$\therefore (11010.010)_2 = (26.125)_{10}$

* Decimal to Binary conversion

- Any decimal number can be converted in its equivalent binary number. one way to convert a decimal number into binary equ is reverse process of binary to decimal conversion.

e.g. 9 can be written in the power of 2 as

$9 = 2^3 + 2^2 + 2^1 + 2^0$

$= 8 + 0 + 0 + 1$

$\rightarrow 1001$

OR, number 23 can be written as.

$$23 = 2^4 + 2^3 + 2^2 + 2^1 + 2^0$$
$$= 16 + 0 + 4 + 2 + 1$$
$$\rightarrow 10111$$

mple 1 :- Convert the decimal number 25_{10} into equivalent binary number.

ution :-

	Quotient	Remainder	
$\frac{25}{2}$	12	1	LSB
$\frac{12}{2}$	6	0	
$\frac{6}{2}$	3	0	
$\frac{3}{2}$	1	1	Read
$\frac{1}{2}$	0	1	MSB

$$(25)_{10} = (11001)_2$$

It may also be Put in the following form:

$25 \div 2 = 12 + 1$
$12 \div 2 = 6 + 0$
$6 \div 2 = 3 + 0$
$1 \div 2 = 0 + 1$
$3 \div 2 = 1 + 1$

1 0 0 1

$$(25)_{10} = (11001)_2$$

mple 2 :- Convert the decimal number 45_{10} into equivalent number.

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Solution :-

	Quotient	Remainder	
$\frac{45}{2}$	22	1	(LSB)
$\frac{22}{2}$	11	0	
$\frac{11}{2}$	5	1	
$\frac{5}{2}$	2	1	
$\frac{2}{2}$	1	0	Read
$\frac{1}{2}$	0	1	(MSB)

$(45)_{10} = (101101)_2$

* Decimal fractions to Binary conversion
In the case, multiply by two rule used.

Example 1 :- convert a decimal fraction 0.8125 into equivalent

Solution :-

$0.8125 \times 2 = 1.625 = 0.625$ with carry 1
$0.625 \times 2 = 1.25 = 0.25$ with carry 1
$0.25 \times 2 = 0.50 = 0.5$ with carry 0
$0.5 \times 2 = 1.0 = 0$ with carry 1

MSB
Read
LSB

Multiply the decimal fraction by 2 until the Fractional Product is zero

$(0.8125)_{10} = (0.1101)_2$

mple 2 :- Convert decimal number 25.6 into binary number.

lution :- First split the decimal number into an integer 25 and fraction of 0.6 and apply double-dabble to each part.

	Quotient	Remainder	
$\frac{25}{2}$	12	1	LSB
$\frac{12}{2}$	6	0	
$\frac{6}{2}$	3	0	Read
$\frac{3}{2}$	1	1	
$\frac{1}{2}$	0	1	MSB

and

$0.6 \times 2 = 1.2 = 0.2$ with carry 1 MSB

$0.2 \times 2 = 0.4 = 0.4$ with carry 0

$0.4 \times 2 = 0.8 = 0.8$ with carry 0 Read

$0.8 \times 2 = 1.6 = 0.6$ with carry 1

$0.6 \times 2 = 1.2 = 0.2$ with carry 1 LSB

$(0.6)_{10} = (10011)_2$

$\therefore (25.6)_{10} = (11001.10011)_2$

* Hexadecimal to Binary conversion

Example 1 :- Convert $(9.CA)_H$ to binary.

Solution :-

9	C	A
↓	↓	↓
1001	1100	1010

$(9CA)_H = (1001\ 1100\ 1010)_2$

Example 2 :- Convert $(D2E\ 8)_{16}$ to binary.

Solution :-

D	2	E	.	8
↓	↓	↓	↓	↓
1101	0010	1110	.	1000

$(D2E.8)_{16} = (1101\ 0010\ 1110.1000)_2$

* Binary to Hexadecimal conversion.

Example 1 :- Convert the 1100101001010111 binary number to hexadecimal.

Solution :-

1100	1010	0101	0111
↓	↓	↓	↓
C	A	5	7

$(1100101001010111)_2 = (CA57)_{16}$

Example 2 :- Convert $(1011011011000011)_2$ to hexde

Solution :-

0010	1101	1011	0011
↓	↓	↓	↓
2	D	B	3

$(1011011011000011)_2 = (2DB3)_{16}$

* Hexadecimal to Decimal conversion

Example 1 :- Convert $(E5)_{16}$ to decimal number.

Solution :-
$$(E5)_{16} = E \times 16^1 + 5 \times 16^0$$
$$= E \times 16 + 5 \times 1$$
$$= 14 \times 16 + 5 \times 1$$
$$= 224 + 5$$
$$= 229$$
$$(E5)_{16} = (229)_{10}$$

Example 2 :- Convert $(B2F.39)_{16}$ to decimal number.

Solution :-
$$(B2F.39)_{16} = B \times 16^2 + 2 \times 16^1 + F \times 16^0$$
$$= +3 \times 16^{-1} + 9 \times 16^{-2}$$
$$= 11 \times 256 + 2 \times 16 + 15 \times 1 + 0.1875 + 0.0352$$
$$= (2863.2227)_{10}$$

* Decimal to Hexadecimal conversion

Example 1 :- Convert $(650)_{10}$ to hexadecimal by repeated division by 16.

Solution :-

Successive division	Quotient	Remainder	Hexadecimal	
$\frac{650}{16}$	40	10	A	
$\frac{40}{16}$	2	8	B	Read
$\frac{2}{16}$	0	2	2	

$$(650)_{10} = (28A)_{16}$$

Example 2 :- Convert $(429)_{10}$ to hexadecimal.

Solution :-

Successive division	Quotient	Remainder	Hexadecimal
$\frac{429}{16}$	26	7	7
$\frac{26}{16}$	1	10	A
$\frac{1}{16}$	0	1	1

Read ↑

$\therefore (429)_{10} = (1A7)_{16}$

* Hexadecimal Fraction

Example 1 :- Convert 0.357 to hexadecimal equivalent

Solution :- 0.357 is original number.

	Carry	Hexadecimal
$0.357 \times 16 = 5.712$	5	5
$0.712 \times 16 = 11.392$	11	B
$0.392 \times 16 = 6.272$	6	6

Read ↓ *

Reading the hexadecimal equivalent from top to the bottom.

$(0.357)_{10} = (0.5B6)_{16}$

* Binary Coded Decimal (BCD)

Example 1 :- Convert each of the following decimal numbers into BCD.

i) 429

4 2 9

↓ ↓ ↓

0100 0010 1001

Example 2 :- Convert $(429)_{10}$ to hexadecimal

Solution :-

Successive division	Quotient	Remainder	Hexadecimal
$\frac{429}{16}$	26	7	7
$\frac{26}{16}$	1	10	A
$\frac{1}{16}$	0	1	1

Read ↑

$\therefore (429)_{10} = (1A7)_{16}$

* Hexadecimal Fraction

Example 1 :- Convert 0.357 to hexadecimal equivalent

Solution :- 0.357 is original number.

	Carry	Hexadecimal
$0.357 \times 16 = 5.712$	5	5
$0.712 \times 16 = 11.392$	11	B
$0.392 \times 16 = 6.272$	6	6

Read ↓ *

Reading the hexadecimal equivalent from top to the bottom.

$(0.357)_{10} = (0.5B6)_{16}$

* Binary Coded Decimal (BCD)

Example 1 :- Convert each of the following decimal numbers into BCD.

i) 429

4 2 9
↓ ↓ ↓
0100 0010 1001

) 9745

9	7	4	5
↓	↓	↓	↓
1001	0111	0100	0101

39.2

3	9	.	2
↓	↓	↓	↓
0011	1001	.	0010

mple 2 :- Find the decimal number represted as By the following BCD code.

ion :- 1) 10000110

make a group of 4 bit

1000	0110
↓	↓
8	6

$\Rightarrow$ 86

De morgan's Theorems

De morgan's first Theorem

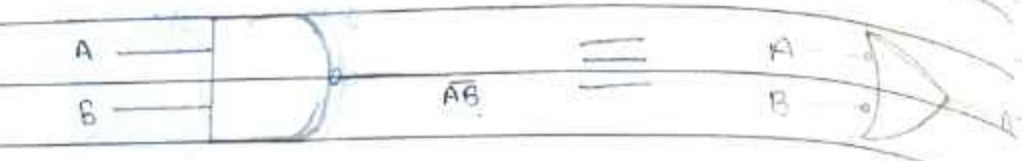
De morgan, a logician and mathemdtician Proposed two theorems which are important Parts of Boolean algebra.

De morgan's First theorem is,

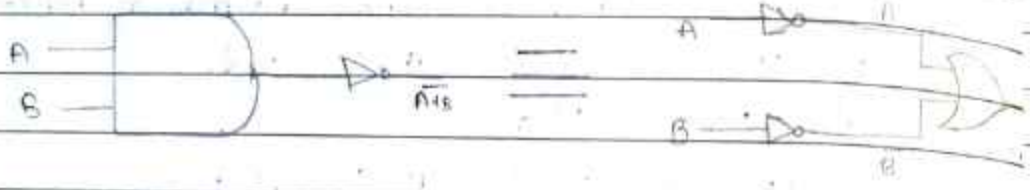
$$\overline{AB} = \bar{A} + \bar{B}$$

The complement of Product is equal to the Sum of the complements. The complement of two or more variables ANDed is the same as the OR of the complement of each individual

Variables.



It can also be construed with AND, OR NOT gate as follows:-



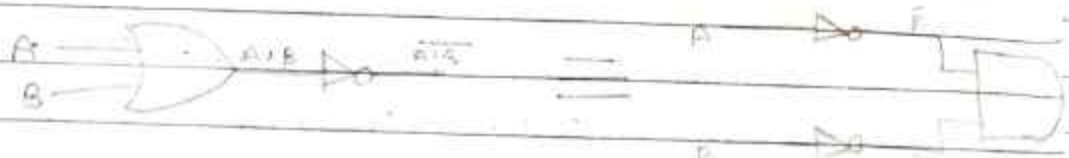
Input		Intemediate Value			Output	
A	B	AB	$\bar{A}$	$\bar{B}$	$\overline{A \cdot B}$	$\bar{A}+\bar{B}$
0	0	0	1	1	1	1
0	1	0	1	0	1	1
1	0	0	0	1	1	1
1	1	1	0	0	0	0

① De morgan's Second Theorem

The complement of a Sum is equal to Product of the complements. It can be expressed as:

$\overline{A+B} \quad \bar{A} \cdot \bar{B}$

using AND, OR and NOT gate, the circuit can be



Input		Intermediate Value			Output	
A	B	A+B	$\bar{A}$	$\bar{B}$	$\overline{A+B}$	$\bar{A}+\bar{B}$
0	0	0	1	1	1	1
0	1	1	1	0	0	0
1	0	1	0	1	0	0
1	1	1	0	0	0	0

Now consider the NAND operation of three variables.

$$\overline{ABC} = \bar{A} + \bar{B} + \bar{C}$$

and $$\overline{A+B+C} = \bar{A} \cdot \bar{B} \cdot \bar{C}$$

The above result can be easily extendended to any number of variables.

* De morgan's theorems can be used for simplifying logic function.

Example 1 :- Simplify the following expressions.

Solution :- i) $\overline{\overline{A+B}+\bar{C}} = \overline{\overline{A+B} \cdot \bar{C}}$ $\quad \because \overline{A+B} = A+B$ and $\bar{C} = C$

$= A+B \cdot C$

$= (A+B) \cdot C$

ii) $\overline{\bar{A}+B+\overline{CD}} = \overline{\overline{A+B}} \; \overline{\overline{CD}}$

$= (\bar{A}+B)\, CD$

iii) $\overline{A\bar{B}+\bar{A}+AB} = \overline{\bar{A}+\bar{B}+\bar{A}+AB}$ $\quad \because \bar{A}+\bar{A} = \bar{A}$, $A\bar{B}+\bar{B} = A+\bar{B}$

$= \overline{\bar{A}+\bar{B}+AB}$

$= \overline{\bar{A}+A+\bar{B}}$

$= \overline{1+\bar{B}}$

$= \overline{1}$

$= 0$

$\overline{A\bar{B}+\bar{A}+AB} = 0$

(iv) $\overline{(\bar{A}.B)(B.C)C.\bar{D}} = \overline{\bar{A}.B + \overline{B.C} + (C.\bar{D})}$

$= \bar{\bar{A}} + \bar{B} + \bar{\bar{B}} + \bar{C} + \bar{\bar{C}} + \bar{\bar{D}}$ $\because \bar{\bar{A}} = A$ and $\bar{\bar{D}}$

$= A + \bar{B} + \bar{\bar{B}} + \bar{C} + \bar{\bar{C}} + D$ $\because \bar{B} + \bar{\bar{B}} = \bar{B}$ and $\bar{C} + \bar{\bar{C}}$

$= A + \bar{B} + \bar{C} + D$

$\therefore \overline{(\bar{A}B)(BC)(C\bar{D})} = A + \bar{B} + \bar{C} + D$

Gokhale Education Society's

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N. S. Chandak Science College

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Department of Economics

Assignment

SAVITRIBAI PHULE PUNE UNIVERSITY

(Formerly University of Pune)

S.Y.B.A. Economics

(Choice Based Credit System and Semester System)

Paper	Semester	Title of the Paper
G -2	III & IV	Financial System
S -1	III & IV	Micro Economics
S -2	III & IV	Macro Economics

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

Choice Based Credit System (CBCS) Course Structure

S.Y.B.A. Economics

Choice Based Credit System (CBCS)

G -2. Financial System

Semester III

CC-1C - Financial System I

Assignments

Indian Financial System Year 2020-2021

1. Explain the Meaning, Nature, Role and Importance of Indian Financial System.
2. . write the Structure of Indian Financial System.
3. Characteristics and Functions of Components of Indian Financial System.

Banking in India Year 2021-2022

1. . Explain the Commercial Banks (Public Sector Banks, Private Sector Banks,
2. Foreign Banks): write in details.
3. Regional Rural Banks and Co-operative Banks: Evolution, Management and Organization, Loan Management, Functions,
4. Problems and Measures to solve the problem.

Financial Markets in India Year 2022-2023

1. Classification of Financial Market.
2. Indian Money Market: Features, Functions and Instruments.[Differencs]
3. Indian Capital Market: Features, Functions and Instruments.
4. Foreign Exchange Market: Role and Importance.

Important Financial Institutions Year 2023-204

1. Write the Meaning and Importance of Financial Institutions.
2. Stock Markets: NSE and BSE: Meaning & Functions write in details
3. Non-Banking Financial Intermediaries: Meaning and Functions.
4. Role and Functions of Financial Institutions in India with reference UTI, LIC, GIC

Semester IV

CC -1D - Financial System II

Assignments

Reserve Bank of India-2021-2022

1. Explain the Structure and Role of RBI in Indian Economy
2. Write down the Major Functions of RBI.
3. Monetary Policy: Tools and their Limitations.

Other Financial Regulators in India -2022-2023

1. SEBI: Role and Functions.
2. IRDA: Role and Functions.

International Financial Institution-2023-2024

1. Role, Structure, Objectives and Functions of IMF.
2. Role, Structure, Objectives and Functions of World Bank.
3. Role, Structure, Objectives and Functions of Asian Development Bank.
4. Role, Structure, Objectives and Functions of BRICS Bank.

S.Y.B.A. Economics (Revised Syllabus)

Choice Based Credit System (CBCS)

S -1. Micro Economics

Semester III

DSE – 1A - Micro Economics I

Assignment

Year 2021-2022

1. Write the Meaning, Nature, Scope, Importance of Micro economics
2. Explain the Basic Economic Problems
3. Importances of Tools of economic analysis- Functional Relationship, Schedules, Graphs and Equations.
4. Variables- Dependent and Independent Variable, Endogenous and Exogenous

Theory of Consumer Behavior Year 2022-2023

1. Write Utility – Meaning and Types
2. Cardinal Approach: Law of Diminishing Marginal Utility, Law of Equi-Marginal Utility.
3. Ordinal Approach: Indifference Curve Analysis- Meaning and Definition,
4. Characteristics of Indifference Curve, Consumer's Equilibrium

Theory of Demand Year 2023-204

1. Meaning of Demand, Determinants of Demand
2. The Law of Demand & Its Exceptions, Market Demand
3. Elasticity of Demand –Meaning and Types
4. Price Elasticity of Demand: Meaning, Types, Methods ofMeasurement
5. Income Elasticity of Demand: Meaning and Types
6. Cross Elasticity of Demand: Meaning and Types

Semester IV

DSE – 1B - Micro Economics II

Year 2020-2021

1. Expalin the Cost Concepts : Fixed Costs, Variable Costs, Total Cost, Average Cost, 2.Marginal Cost, Economic Cost and Accounting Cost, Opportunity Cost

3.Wrirte Short note-Run and Long Run Costs curves

Revenue Concept: Total Revenue, Average Revenue & Marginal Revenue

Year 2021-2022

1. Describe the Meaning & Classifications of Market Structure.

2.Perfect Competition: Meaning, Characteristics, Equilibrium of Firm and Industry in Short Run and Long Run

3. Monopoly: Meaning, Characteristics, Short and Long Run Equilibrium. Price Discrimination

4. Monopolistic Competition: Meaning, Characteristics, Short & Long Run Equilibrium of firm and Industry, selling cost- Meaning

5 Oligopoly: Meaning and Characteristics

6 Duopoly: Meaning and Characteristics

Year 2022-2023

1.Marginal Productivity Theory Of Distribution

2.Rent: Ricardian Theory of Rent, Modern Theory of Rent, Quasi Rent

3.Wages: Modern Theory of Wages, Supply Curve of Labour

4.Interest: Keynesian Liquidity Preference Theory, Loanable Fund Theory

5.Profit: Risk and Uncertainty Theory, Innovation Theory

Year 2023-2024

1 Welfare Economics: Definition and Meaning

2 Pigovian Welfare Economics

3 Thought of Amartya Sen on Welfare Economics

S.Y.B.A. Economics (Revised Syllabus)

Choice Based Credit System (CBCS)

S -2. Macro Economics

Semester III

DSE – 2A - Macro Economics I

Year 2020-2021

1.1 Meaning, Nature and Scope of Macro Economics

1.2 Importance and Limitations of Macro Economics

1.3 The difference between Micro Economics and Macro Economics

Year 2021-2022

1.write the Meaning and Importance of National Income Various Concepts of National Income – GDP, GNP, NNP, PCI, Personal Income, Disposable Income

2.Methods of National Income Measurement Difficulties in the Measurement of National Income
3.Circular Flow of National Income

Year 2022-2023

1 Classical Theory of Employment, Say's Law of Market.

2 Keynes' Criticism on Classical Theory

3 Keynesian Theory of Employment – Aggregate Supply Price and

4 Aggregate Demand Price, Employment Determination

Year 2023-2024

1.Consumption Function – Meaning, Various Concepts - APC, MPC, Psychological Law of Consumption, Factors Influencing Consumption Function

2.Saving - APS, MPS. Investment – Meaning, Types, Marginal Efficiency of Capital
3.The Concept of Multiplier the Principle of Acceleration.

Semester IV

DSE – 2B - Macro Economics II

Year 2020-2021

1.write down Money – Meaning and Functions Value of Money – Meaning, Quantity Theory of Money, Cash Balance Approach

2. Explain Supply of Money – Various Measures of RBI

Year 2021-2022

1.Inflation – Meaning, Types, Causes – Demand Pull and Cost Push Inflation, Effects
2 Explain the Measures to Control Inflation

3.Deflation – Meaning, Causes and Effects

4.Philips Curve, Stagflation – Meaning

Year 2022-2023

1	Meaning, Features and Phases of Business Cycle
2	Causes and Effects of Business Cycle
3	Keynes' Theory of Business Cycle
4	Control of Business Cycles – Monetary and Fiscal Controls.

Assignment

T.Y.B.A. Economics

(Sem V & VI)

Semester	Paper Name	Subject Code	Title of the Paper
V	Economics General - III		Indian Economic Development- I
	Economics Special - III		International Economics-I
	Economics Special - IV		Public Finance- I
	Skill Enhancement Course (SEC-3A)		Business Management- I
VI	Economics General - III		Indian Economic Development- II
	Economics Special - III		International Economics- II
	Economics Special - IV		Public Finance- II
	Skill Enhancement Course (SEC-3A)		Business Management- II (Project Report)

T.Y.B.A. Economics

General Paper-III: Indian Economic Development-I

Semester V

Year 2020-2021

1 Economic Development: Meaning, Definition and Indicators

2 Economic Growth: Meaning, Definition and Indicators

3 Need and Importance of Economic Development

Year 2021-2022

1 Concepts of Developed and Developing Countries

2 Characteristics of Developed Countries

3 Characteristics of Developing Countries : Economic, Demographic, Technological, Social and Political

4 India as an Emerging Economy

Year 2022-2023

3 **Constraints to Development Process**

1 Vicious Circle of Poverty

2 Capital Constraints

3 Technology Constraints

4 Socio- Cultural Constraints

5 Political and Administrative Constraints

6 External Bottlenecks

Year 2023-2024

1.Role of Human Resources in Economic Development

2.Human Development Index and India

3.Concepts of Physical Quality of Life Index:

4.Gender Development Index

5.Gender Inequality Index

6.Multidimensional Poverty Index

General Paper- III: Indian Economic Development-II

Semester VI

Year 2020-2021

1 Economic Planning – Meaning, Definition and Features

2 Need of Economic Planning

3 Objectives of Economic Planning in India

2 Year 2021-2022

1 NITI Aayog- Objectives and Structure

2 Role of NITI Aayog

.3 Difference between Planning Commission and NITI Aayog

3 Year 2022-2023

1 Sustainable Development : Meaning and Importance

2 17 SDGs (Sustainable Development Goals)

3 Measures for Sustainable Development

4 Current Scenario of SDG in India

4 Year 2023-2024

1 Relation between Environment and Economic Development.

2 Environment and Sustainable Development

T.Y.B.A. Economics

Special Paper - III: International Economics-I

Semester - V

Year 2020-2021

1 International Economics- Meaning, Scope and Importance

2 Inter-regional and International Trade

3 Importance of International Trade

Year 2021-2022

1 Theory of Absolute Cost Advantage and Theory of Comparative Cost Advantage

2 Heckscher-Ohlin Theory

3 Leontief's Paradox

4 Intra-Industry Trade

Year 2022-2023

1 Meaning, Types and Importance of Terms of trade

2 Determinants of Terms of trade

3 Causes of Unfavourable Terms of trade to Developing Countries

Year 2023-2024

1 Balance of trade and Balance of payments- Concepts

2 Balance of payments - Components

3 Disequilibrium of Balance of Payments, Causes and Consequences

4 Measures to correct Disequilibrium in the Balance of Payments

1 India's Foreign Trade and Policy

Year 2020-2021

1 Role of Foreign Trade in Economic Development

2 India's Foreign Trade- Growth, Composition and Direction since 2000

3 Free Trade v/s Protection - Case For and Case Against

4 Highlights of India's Foreign Trade policy Since 2015

5 Evaluation of Policy of Special Economic Zones in Export Promotion

Year 2021-2022

1 Role of Foreign Capital in Economic Development

2 Types of Foreign Investment

3 Foreign Investment Policy in India since 1991

4 Problems of Foreign Capital

Year 2022-2023 Foreign Exchange

1 Exchange Rate : Concept; Fixed & Flexible Exchange Rate -Merits and Demerits

2 Foreign Exchange Market- Meaning, Structure and Functions

3 Convertibility of the Rupee

4 Foreign Exchange Management Act, 1999, Main Provisions

Year 2023-2024

Regional and International Co-operation: Nature and Functions of-

1 South Asian Association for Regional Cooperation (SAARC)

2 Brazil, Russia, India, China and South Africa (BRICS)

3 European Economic Community (EEC)

4 World Trade Organization (WTO)

T.Y.B.A. Economics

Special Paper – IV:Public Finance -I (

Semester – V

1. 2020-2021

1 Meaning, Nature, Scope and Importance of Public Finance

2 Public Finance versus Private Finance

3 Role of Public Finance in Economic Development

4 Principle of Maximum Social Advantage: Musgrave's Approach

Year 2021-2022

1 Sources of Public Revenue

2 Meaning of Tax, Types of Taxes- Direct Tax and Indirect Tax, Merits and Demerits

3 Goods and Service Tax: Concept and Characteristics; Need for GST in India

4 Concepts: Impact of Tax, Incidence of Tax, Shifting of Tax and Taxable Capacity

3 Public Expenditure Year 2022-2023

1 Meaning and Principles of Public Expenditure

2 Classification of Public Expenditure

3 Reason for Increasing Public Expenditure

4 Wagner's Law of Public Expenditure

4 Public Debt Year 2023-2024

.1 Meaning, Sources and Importance of Public Debt

2 Methods of Repayment of Public Debt

3 Burden of Public Debt

4 The Fiscal Responsibility and Budget Management Act 2003- Highlights

T.Y.B.A. Economics

Special Paper – IV: Public Finance -II

Semester – VI

Year 2020-2021

1 Fiscal Policy- Meaning, Instruments and Objectives

2 Fiscal Policy in Developing Countries

3 Limitations of Fiscal Policy

4 Review of Fiscal Policy in India Since 2011

Year 2021-2022 Budget

1 Budget- Meaning, Nature and Objectives

2 Classification of Budget

3 Preparation of Indian Central Budget

4 Gender Budget- Meaning and Importance.

Year 2022-2023

1 Deficit Financing- Meaning and Objectives

2 Role of Deficit Financing in Developing Countries

3 Trends in India's Deficit Financing Since 2011

4 Effects of Deficit Financing

Year 2023-2024

1 Centre-State Financial Relationship: Constitutional Provisions

2 Conflict in the Centre-State Financial Relationship

3 Role of the Finance Commission

4 Recommendations of 15th Finance Commission

Name:- Rahul Laxman Nannose -
Sub:- International Economics -
Roll No:- 271
Std:- TYBA sem 6

Q6

Q 1. What is international trade and explain the role of foreign trade in economic development
? International trade is a referred to as the exchange or trade of goods and services between different nations. This kind of trade contributes and increases the world economy.

Role of foreign trade in Economic development
1] Need and Importance of International trade
The need & importance of International trade is as follows-
1) Division of labour and Specialisation -
International trade leads to division of labour and specialisation at the global level. Countries having abundant natural resources

resources export raw materials and import finished goods from countries with skilled manpower. This benefits all countries thereby leading to division of labour and specialization.

2) Optimum Allocation and Utilisation of Resources -
Unproductive time can be eliminated and wastage of resources avoided by this specialisation. To put it simply, resources are utilised for the production of only those goods which give the highest returns. Therefore, foreign trade allows rational allocation and utilization of resources at the international level.

3) Equality of prices -
By keeping the demand and supply position stable and making allowances for transport and other marketing expenses equality in pricing can be maintained.

4) Availability of Multiple choices -
Consumers the world over has a wide choice in production / products and services by way of new varities b.e.g. available in due to international trading.

5) Generate Employment Opportunities -
Generation of Employment opportunities by increasing the mobility of labour and resources across during trade and indirect employment in other sectors is generated

International (foreign) Trade as an Engine of economic Development -

Haberler while pointing out the significance of foreign trade in economic development states "My overall conclusion is that International trade has made a tremendous contribution to the development of developing countries in the 19th and 20th centuries and can be expected to make an equally big contribution in the future -

Foreign Trade bestows several advantages to participating economy. They can be classified into (A) Direct Advantages and (B) Indirect Advantages.

A) Direct Advantages -

When a country specialise, due to foreign trade and division of labour, on the production of a few goods & exports those goods which she, in the production of produce relatively cheaper and in exchange can have what others can produce at a lower price. In such a scenario, it gains from trade and there is an increase in national income. This in turn, raises the level of output and growth rate of economy. A higher level of output through trade tends to break the vicious circle of poverty and thus may way helps to promote economic development.

All the above benefits are direct and static advantages (gains) from International trade.

B) Indirect Advantages -

International trade also bestows on the country certain indirect and dynamic gains are

① Check on Inefficient Monopolies -

International trade fosters development by encouraging healthy competition and checking inefficient monopolies. For development it is essential to have healthy competition and check inefficient exploitative monopolies.

② Important Educative Effects -

International trade includes 'educative' effect. In Haberler's words, International trade provides" the means and vehicle for the dissemination of technical knowledge. The transmission of ideas, for the importance of know-how is fillip to the technological progress in a country.

③ Import of Capital Goods -

Developing countries are generally capital-deficient nations. International trade helps in import of capital goods against export of staple goods. The staple goods of developing nations are exchanged for machinery, capital goods, raw materials

and semi-finished product required for economic development.

④ Basis for Inflow of Foreign Capital- International trade provides the basis for the inflow of foreign into developing nations - without foreign trade, there would be no inflow of foreign capital from a developed country to a developing country.

ECONOMIC ASSIGNMENT

Sem V

Name : Sanjivani · Sanjay · Salve

Standard : TYBA

Subject : Economics Special - 4
Public Finance

Taught by : DR. Krishna Shabane.

Q: Answer the following questions:

1: Explain meaning nature, scope and importance of public finance.

→ Natural economy is a type of economy in which money is not used in the transfer of resources among people. It is a system of allocating resources through direct bartering, entitlement by law, or sharing out according to traditional customs. In the more complex forms of natural economy, some good may act as a referent for fair bartering, but generally currency plays only a small role in allocating resources.

As a corollary, the majorities of goods produced in a system of natural economy are not produced for the purpose of exchanging them, but for direct consumption by the producers. As such, natural economies tend to self-contained, where all the goods consumed are produced domestically. The term has often been used in opposition to other forms of economy, most notably capitalism.

The Scope of Economics:

Economics as a subject is experiencing continuous growth. The frontier of the subject has been widened after Alfred Marshall separated it from the term political economy. A discussion on the

Scope of economics includes the definition of economics, whether economics is an art or a science and whether it is a positive or a normative science.

Economies of scope is a economic principle in which a business unit cost the the producer a product will decline as the variety of its products increases. In other words the more different but similar goods you produce, the lower the total cost of production each one will be.

To illustrate how economies of scope work, let's say that you're a shoe manufacturer producing men's and women's sneakers. Adding a children's line of sneakers would increase economies of scope because you can use your existing production process, equipment, supply chain, storage facilities and distribution channels to start a new line of products.

The resulting cost to produce multiple products is lower than if three different companies each produced a line of men's shoes, a line of women's shoes and a children's line.

Public finance:

Public finance is the management of the countries economy or the branch of the economy that deals with the countries investments, countries debt. The government of India collects taxes how the proceeds and

development of the nation. There are certain components in the finance system such as national budget, tax collection, investment, countries debt.

* The Importance of Public finance:

* Constant economic growth → the government of India to maintain a constant economy depends on certain tools such as tax, national budget, investment and debt of nation. The role of these tools is to boost the economy of the nation by fulfilling the supply and demand of the products.

* Economical balance → Indian government depends on taxes, these taxes help in fulfilling the financial debt of the nation. The role of the Taxes is to pay all the foreign debt hence maintaining an economical balance.

* Fixed Price → With the government tools such as taxes, national budget etc controlling the inflation rate of the nation is a good source for public finance.

* Equitable development → with the constant economical growths of both the low-level sector and high-level sector grow proportionally as equitable.

* Infrastructure development :→ One of the important of public finance is to develop the infrastructure such as schools, hospitals, provide sanitation facilities, drinking water facilities, road etc to their public.