P. Govind
Midd Roll No. 15
2
Business environment

1)A) The definition of centrally planned economy is that in its function the government owns the means Production which is the foundation of its central authority centrally Planned economics also know commened economics [correlating closely with communism]

The laws and regulation are structured such competent effecient role rship of the government the strong influence of the government results in strict limitation with respect to the free market the open markets centrally planned economies role due to the characteristic government determines Pricing goods services economic Participants place them first in these economies the state sovereign entity ruling the

According to the theory behind centrally planned economies all influential mega corporations are publicly owned this further contributes to the government substantial income sources addition to steep type states implement Theory argu Project deems necessary Centrally

T Venkatesh
Roll No: 12
MID-I
Marketing

16
20

(1)

Marketing is a term that covers a whole gamut of activities aiming to make people aware of your products and services and persuade them to buy the same while advertising is the most common way of marketing it also involves consumer research.

Marketing importance:

Marketing plays an important role in the transfer, trade, and mobility of goods customers can obtain goods and services through a variety of intermediaries such as wholesalers and retailers.

It informs the former about consumer individual requirements and preferences and the latter about the things that producers can provide marketing entails the desing of items that are acceptable to consumers

E. Lakshmi
Roll No: 13
MID - II
Business economics

13/15

(1) Ans:

Introduction:-

Business economics is a field of applied economics that studies the financial organisational market related and environment issues faced by corporations. Business economics encompasse subjects such as the concept of scarcity product factors distribution and consumption.

Productions:-

Production is the process of making harvesting or creating something that was made or harvested. An example of production is the creation of furniture. An example of production is harvesting corn to eat. An example of production is the amount of corn produced is an outcome of an economic activity i.e. production is further defined as:- any activity directed towards the satisfaction of peoples wants through exchange.

K. Akila
Roll No: 10
MID-II
MARKETING

14/15

1

Consumer behaviour :-

Consumer behaviour Types Experts agree that there are four main type of Consumer behaviour Complex buying behaviour dissonance reducing buying behaviour habitual buying behaviour and variety seeking buying behavior Consumer behaviour is the study organisation.

2 Consumer importants :-

Consumer Protection makes markets work for both business and Consumer needs to be able Accurate unbiased information about the Product and services they Purchase. this enable them to make the best choice best on their to interest and Prevented them to Consumer of the Proud misled misled by Condition business

Name: M. Vamshi
Roll No: 11
Sub: Mid-I
Auditing

17/20

① The practice of auditing accounts may be traced back to the early stages of civilization. In those days was undertaken mainly for state auditing as we know it today come to vogue. The word audit is derived from the know exponsible for or otherwise.

The introduction of Joint stock form of management also wide ned the scope of investment and business activities. Audit now implies a written report accounts.

Objects of an Audit:

1. main object of an audit is verification of accounts and statements.
2. subsidiary objects: The verification of accounts is done to see if they are correct, complete and legal.
3. Detection and Prevention of Errors.

Errors generally arise out of the innocence and carelessness of the employees, while fraud means some it is fraud

clerical Errors: These errors are of 4 types. They are

A.V.S. Vishnu
R.N.(?)012
MID-I
Cost Control Techniques

12/20

costing is any system for ...

Costing may involve only the assignment of variable costs, which are those costs that vary with some form of activity. management uses costing. this can be done through ... and ...

1A, Techniques of costing
For any business the first step before entering the products is to calculate the cost. This helps in strategically planning the production and managing the finances ... the company follows several processes depending on the needs and methods. This leads to the facilitation of taking managerial decisions for cost accounting

J. A3y
Roll no: 1
Mid - II

Costand management Accounting

1A) Job costing: Job costing is a method of ascertaining cost in those industries in which goods are manufactured or services rendered against specific order from customers with work order accepted in cost unit costs are as certain separately for each job or work order under taken the purpose of job costing is to certain the cost and profit on each individual job examples of industries in which job costing is applicable or printing press, repairs workshop's General Engineering companys, interior decoration etc.

This is a method where costs are collected and accumulated for each job, contract project or work order separately each job has a separate identify and therefore it becomes essential needs special treatment and production is strictly according to customer's specification

G. Madhukiran
Roll No: 24
Service marketing
Mid - II

14/15

Mid II

(2) Importance of marketing:-

The Purpose of marketing is to help business grow efficiently and reach their highest potential for ROI by promoting brands and services that business do. marketing is a strategy to advertise their business. Every business entity needs to understand such a strategy and how to employ it business they even hire people knowledgeable in marketing

* marketing is one way to give ~~information~~ information to consumers this way consumers will have they will also known benefits of buying your products

* marketing is a great help for many business establishments sectors use different marketing.

* the success of a business depends on it's goals and objectives marketing

B.V.Sai [illegible]
Mid II
Roll No:- 3
13/15

1 objectives:

a) the vigil mechanism aims to provide a channel to the Directors, and employees to report genuine concerns about unethical Behaviour or suspected fraud or violation of the codes of conduct or policy

b) the company committed to adhere to the highest standards or ethical, moral and legal conduct of Business

c) the mechanism provides for adequate safeguards against victimisation cases

functions

1) Reviewing systems and procedures of Business

2) To verify the valuation and existence of assets

3) To verify the distinction between capital and revenue items

4) To see whether the statutory requirements have been complied with

5) To examine the mathematical accuracy of accounting statements

6) Reporting as to what extent accounts exhibit truth and fairness

Jyothi Priya
Roll No:-
Mid-I
Business Environment

Answers

(3) Introduction:

The business environment includes both general and specific forces. Specific forces include investors, customers, competitors, and suppliers. These factors affect individual enterprises directly and immediately in their day-to-day working. General forces include social, political, legal, and technological conditions.

Scope of the business:

Business scope refers to the area in which a company operates and its specific products or services. On the other hand, the business strategy is the plan a company creates to achieve its long term goals and objectives.

It helps organizations detect trends, define threats and opportunities, and promote future orientation. It is responsible for the growth and survival of a company. extent in space; a tract or area. The totality of out puts, outcomes and benefits and the works required to produce them.

G. Malathi
Roll No: 6
1st B.Com

Mid - I Service Marketing

Ans:- Marketing Refers to the activites a Company undertakes to promote the buying or selling of It's Product or services. Marketing Includes advertising and allows business to sell Products and services to Consumers.

* Product:- Product Refers to an item or Item the business plans to offer to Customers. the Product should seek to fulfill an absence in the market.

* Price:- Price refers to how much the Company will sell the Product for. when established a price Compares.

* Place:- Place Refers to the distribution of the Product by considering. Includes Whether the Company will sell the Products.

* Promotion:- Promotion. the fourth P. is the Integrated marketing Communication Compaign.

R.V.D. mahesh
Roll No:-
MID-I
business economics

17/20

Answers

(1). Micro economics studies individuals and business decisions while macro economics analyses the decisions made by countries and governments. Micro economics relates to the study of individual economic units while macroeconomics is a study of economy as a whole. Regnar Frisch was the first to use the terms micro and macro in economics in 1933.

Micro economics :-

* Microeconomics is the study of decisions made by people and businesses regarding the allocation of resources, and prices at which they trade goods and services. It considers taxes, regulations and government legislation.
* Microeconomics focuses on suply and demand and other forces that determine price levels in the economy.

Macro economics :-

* Macro economics focuses on aggregates and econometric correlation which is why governments and their agencies rely on macro economics to formulate economic and fiscal Policy.
* John Maynard Keynes is often credited as the founder of macroeconomics as he initiated the use of monetary aggregates to study broad Phenomena.

G. Rishi
Roll No:- 8
C.M.A
II B.Com.

Mid-I

13
15

(2)
(A) When materials are to be issued to production what prices should be charged for costing the materials to so issued and what should be the value of the remaining as issued stock in hand. Whether it should be the original purchase price or the average price or the curent marked price on the date of issue or some other price that current market is used for this purpose. the question is important because the pricing directly affects.

(1) First-in first-out
(2) Last-in First-out
(3) Simple average price
(4) weighted average price

(1) First-in-First-out:-

This method is based on the assumption that materials which are purchased first are issued until all units from this batch have been issued

Advantages:

1. This method is based on a realistiatic assumption that materials.
2. Materials are issued at actual cost.

G. Sririsha
I. B.com
Rollno.14
Mid - II C.C.T

15

(2)
(A)

Transfer pricing is an accounting praktice that represents the price that one division in a company charges another division for goods and service provided.

Transfer pricing allows for the establish-ment of prices for the goods and services exchanged between subsidiaries, affiliates, or commonly contraued companies that are part of the same larger enterprise.

* Transfer pricing accounting occurs when goods or services are exchanged between division of the same.

* A transfer price is based on market prices charging antoer division subsidiarly or holding company for services rende-red

* companies charge a higher price to divisions in high-tax countries (redu-cing profit)

Name :- G. Rekha
Roll No:- 09
2nd B.Com
4th Sem
Sub:- Business law

30/6/23

18/20

Mid Exam-1

(1) The India contract act, 1872 is not a complete code dealing with all branches of the law of contract" comment.

(2) what are the salient features and classification of Contracts under India Contract act, 1872? (2×10=20m)

(3) Void Contracts.

(5×1 = 5 m)

2A) Features of Contracts :-

the following which features of contracts

(i) According Epation

(ii) ~~void~~ Avoidable contract

(iii) ~~a~~voidable contract

(iv) ~~a~~void contract

(v) According information

(vi) Building Contracts

(vii) Company Contracts.

(viii) ~~According~~ legal Contracts. law full Contracts.

(x) legal Contracts

(i) According Explaining :- the classification contracts the 1872 ~~Act~~ which India contracts the contracts based which - way the According to Explain the in India Contract 1872 Act

30/6/23

19/20

K. Akhila
2nd. B.Com
Business law

Mid Exam-II

1. The indian contract Act, 1872 is not a complete code ~~deti~~ dealing with all branches of the law of contract comment.
2. what are the salient features and classification of contract under indian contract Act 1972 explain wari various types of contract.
3. void contracts.

3A) void contract is the basied on aggrement in the contract Act indiam in 1972 in they of the in the entertainment The void contra-ct in cases by in the aspetance and there will be that the business law the void contract The void contract was in the law of relationship

MID Exam - I

5/11/23

Business Statistics

28/30

G. Srisha
II nd B.com
Roll. No = 4.

2 x 10 = 20M

(1) Arthemetic mean & Continuous Series on Step deviation method.

Calculate the following data.

Income :- 10-20, 20-30, 30-40, 40-50, 50-60, 60-70.

Number of students:- 4, 7, 16, 20, 15, 8.

(2) Bi-mode

Class Intervals 0-10, 10-20, 20-30, 30-40, 40-50, 50-80.

frequency :- 7, 21, 13, 16, 24, 25.

Arthemetic :-

median :-

Bimode :-

Theory :-

(3) Short answers

2 x 5 = 10 M

Discuss the Scope of Statistics ?

(4) what is the Importance of Questionnaire?

(15) MID - II

Financial Accounting

I st year
2nd sem
Roll no: 5

...st of asset
...d residual valor
...eful life of

1) Define depreciation ...

J. Anjay
II. B.com
Roll.no: 1

(12/20) MID - I

Semister

...orate Accounting.

Business statistics

1) median from the following data calss Intervals ja medium?

: 0-10, 10-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 8-90

Frequency :- 10, 15, 26, 30, 42, 31, 24, 15, 7

class Intervals	frequency	Cumulative frequency
0-10	10	10
10-20	15	25
20-30	26	51
30-40	30	81C
40-50	42F	123
50-60	31	154
60-70	24	178
70-80	15	193
80-90	7 N=200	200

$m = L_1 + \frac{L_2 - L_1}{F} \times (m - C)$

$m = \frac{N}{2}$

$m = \frac{200}{2} = 100$

$m = 40 + \frac{40 - 50}{42} \times (100 - 81)$

$m = 40 + \frac{10}{42} \times 19$

$m = 40 + 452$

$m = 44.52$

...e

...y | amount

...50

1,55,250

51750

10350

41...

Mid EXAM -II

V. Madhu kiran
2nd. B.com.

C.A

① Meaning of shares.

Sol:- The shares capital of a company is divided into small units called shares are offered to the public for subscription The person who purchase a share i called share holders. The share capital of the company is meant for long term requirment be paid the life time of the company.

Definision :-

It is define by sec 2 (84) of the companies act 2013, a share in the share capital of company and includes stock.

Kindes of shares

companies secure most of the their capital by issuing shares to the public.

The shares issued by a company can be boadly divided into TWO classes namely perfence share and equity shares. The companies act 2013, allows a public limited company to issued only types of shares

mid - I J. AJay

15/20

Corporate Accouting Roll No:-1
B.com

① form the following information claclate the value of goodwill the business averge capital imploying the business 40000 break trading prot of the from the last 4year.

2010 - 12200
2011 - 11000
2012 - 2000
2013 - 21000

The rate of interest expeted from capital 10%. fair venuition to the serves of samsan 3600

3year parchas of adition super profit an the basis of average profit 4years related Goodwill

Trading Profit = 2010 - 12200
2011 - 11000
2012 - 2000
2013 - 21000
46200

$= \frac{46200}{4} = 11550$

Avarage Profit = 11,550

Less Remunation = 3600

7950

13/20

L. Ganesh

Roll. No:- 11

Sem II Subject:- BTP

MID-I

3 Meaning of Branch Banking

Branch Banking refers to a system in which a bank provides banking services through a wide network of branch offices. If a bank has ten branches in city, account-holders can choose a nearby branch to make deposits, withdrawals and avail of other services.

It makes banking convenient as it helps in reducing geographical barriers. For instance, citibank started operations in 1812 in New York and today it has a network of 4000 branches in 42 countries. Customers from different countries can utilize its services through branch offices even if they aren't staying in newyork

4 Unit Banking :-

In unit Banking, the banking operation are carried on through a single office rather than through a network of branches under the control of a single bank. The single office is the controlling and the operating unit. Each banking unit is a separate company with a separate entity, with its capital, shareholders, and board of directors

3

Unit Banking is a system of Banking under which single banking banking. organisation provides banking services. such a bank has a single office or place of work. It has its own governing body or board of directors.

(3)

① Function of RBI

According to the RBI act 1934 has various function to serve. Some of the include

Monetary Authority :- It plans and supervises the monetary policies designed for the country. The objective behind this is that every policy should be designed keeping in the mind the idea of growth and at the same time should also maintain price stability.

Financial system supervisor :-

It designed the parameters under which all the banks of contry should ask the trust of the general public in the financial system of the contry and provide the them services which

ation

rk

)

Foreign Exchange :-

All the foreign exchange that transacts between the countries is maintained and looked after by RBI. This is done so that easy and smooth foreign trade can happen and also foreign market remains maintained.

Issue of currency :-

RBI is the authority who issues notes, destroys the old notes and decides which currency is fit for circulation among the people market remains demonetisation was done after taking advice from RBI and the new notes of 2000 came into circulation.

Development :-

Various national projects are funded by RBI. It undertakes develop-ment of the country at its objective and invests at various place national interest.

sem-II

27/6/23 18/20

F-A-I → MID

name :- G. Pavan

Class :- B.Com 1st years

Roll no :- 2

① ans :- Annual depreciation = $\frac{\text{original cost of asset - Estimate Residual of value}}{\text{Estimate useful Life of the Asset}}$

$= \frac{40,000 - 4000}{9}$

$= \frac{36,000}{9}$

Annual depreciation = 4,000

Rate depreciation = $\frac{\text{Annual depreciation}}{\text{original cost of Asset}}$

$= \frac{4000}{40000} \times 10$

$= 10\%$

② there are some of the difintions given by the parmanent authors and accountancy.

(a) depreciations may be defined to the principle assets as linious dimintions at is qualit or value of a principle

Name:- G. Jason
Roll no:- 2
1st B.Com General

F-A-II 10/15 MID-II

① Define depreciation what are the causes for depreciation?

A) The following are the some of the definition given by the depreciation.

① Depreciation is the given define the parament authors of the society. It value of asset in the reckless

② Depreciation is the graduals - parments of the transactions and communicitions at value assets as - subjects.

③ Depreciation are intangible of those utilisations and constant accounts have in the assets our view in the depreciations.

It is some of the depreciation is means there "permanents".

There are four types of depreciations below following.

[illegible] 27/6/23 16/20 Mid - 1

G. Pavani
Roll : 3
I. B.com
financial accounting

① Annual depreciation = $\frac{\text{orginal cost of asset} - \text{Estimated residual value}}{\text{Estimated useful life of asset}}$

$= \frac{40,000 - 4000}{9}$

$= \frac{36000}{9}$

$= 4000$

Rate of depreciation = $\frac{\text{Annual depreciation}}{\text{orginal cost of asset}}$

$= \frac{4000}{40,000} \times 100$

$= 10\%$

11/15

MIO - II

Financial Accounting

R. Jyothi Priya
Ist year
2nd Sem
Roll No :- 5

1). Define Depreciation. What are the causes for depreciation?

A. The following are the some of the definitions given by the Prominent authors of accounta -ncy.

(1). Depreciation may be defined as the Permanent and continuous diminition in the quality or value of an asset - Ruckles

(2). Depreciation is the gradual and permanent decrease in the value of an asset. - Carte

(3). Depreciation is the diminition in intrinsic value of an asset due to use and or the lapse of times. — ICMA Terminology.

In simple words, the depreciation means 'a permanent, continuing and gradual shrinkage in the value of an asset'.

The following are the important causes of depreciation.

1. Physical factors:-

The tangible fixed assets like

30/6/23

18/20

Name : T : Ajay

Rollno : 1

Financial Accounting 2nd B.com

I Mid Exam :

1. the Indian Contract Act 1872 is not a Complete Code delling with all branches of the laws of Contract Comment. 1x10 = 10m

2. what are the salient features and classification of contact under India Contract Act 1872 / 1x10=10 M.

3. Void Contracts

2. Ans Feature of Contracts

the Following the feature of contracts.

(i) Velode Contracts Expition

(ii) legal contracts

(iii) illegal Contracts

(iv) Void Contracts

(v) Company Contract

(vi) Building Contracts

(vii) VoidleContracts

(i) Valide contract Expation : the Following the Indian Contract was Act 1872 (Section 72-192) of the is was a where valide Contract there taken for individual prices to become to Useing of this Contracts

is divided into ... the public for subcription asset
are offered to the public for subcription
The person who purchase a share is called value
share holders. The share capital of the ... amount of

K.Akila
IIB.com
RollNo:7

Mid-I 10/20

~~Financial Accounting~~ Fundamentals of Accounting

Journalise the following transactions:

a) Prasad started business with cash RS.30,000 and a building worth RS. 50,000

b) Purchased goods worth RS. 20,000 out of which goods worth RS.12,000 was on credit from GOPi

c) Sold goods on credit to Ramu RS. 16,000

d) Received RS. 15,800 from Ramu in full settlement of his account

e) Paid RS.11,600 to GOPi in full settlement of his a/c

f) Paid wages RS. 500 and salaries RS. 2000

2nd B.COM.

G. Srisha

G. Pav

A

Date	Particulars	L.F	D.r	C.r
1	Cash A/C	Dr	50,000	
	Buildings a/c	Dr	50000	
	To Prasad Capital a/c			19000
	(Being the cash and buildings brought in towards capital)			
2	Purchases a/c,	Dr	20,000	
	To Cash A/C			8000
	To Gopi a/c			12000
	(Being the goods purchased for cash and on credit)			
3	Ramu a/c	Dr	16,000	
	To Sales a/c			16,00
	(Being the goods sold on credit)			
4)	Cash A/C	Dr	1550	
	Discount a/c	Dr	500	
	To Ramu a/c			1600
5	Gopi a/c	Dr	12,000	
	To Cash A/C			11,6
	To Discount a/c			4
6	Wages a/c	Dr	500	
	Salaries a/c	Dr	2000	
	To Cash a/c			25

G. Sireesha
3. BCom
Role - 01
Sem - m.10-1
Sub : BOM

1) what is management? write the objectives of management

A) management can be defined as the process of administering and controlling the affairs of organization irrespective of its nature, type structure and size.

Definition:-

In the words of Henry faylo "To manage is to forecast and to plan to organize, to command, to co-ordinate and to control"

objectives of management :-

The main objective of management is to run the enterprise smoothly.

* Optimum utilization of resources:-

The most important objectives of the management are to use various resources of the enterprise in a most economical way.

* Growth and development of business

By ~~proop~~ proper planning organisation and direction etc management leads a business to growth and development on sound footing

* Better quality goods :-

The aim of the sound management has always been to produce the better quality products at minimum cost

* Ensuring regular supply of goods :-

Another objective of management is to ensure the regular supply of goods of the people

* Discipline and morale :-

The management maintains the discipline and boosts the morale of the individuals by applying the principles of decentralisation and delegation of authority

G. Ujjal Rafu
UG BCom
Sem - VI
Roll - 8
Sub: MA

2) Define management

management refers to a set of activities [Planning, organising, decision making, controlling etc] directed towards an organisation's resources [human, financial, physical and informational] with the aim of achieving organisation's goals in an efficient and effective manner

Definitions:-

According to peter F. Drucker, "management is an organ; organs can be described and defined only through their functions

According to mary parker follett. "management is the art of getting things done through others"

3) Decision-Making environment

environment of decision-making represents the known and unknown environmental variables within which decisions are made some decisions are taken in the situation of complete

certainty and others in the situation of complete/partial uncertainty

* Certainty :-

In the environment of certainty, decision makers have complete and reliable information about future. Information is reliable correct and not too expensive

* Risk :-

This represents a situation where information about environment is incomplete It is not even completely reliable.

* uncertainty :-

It is a situation where no information it is ~~not~~ available about future whatever information is available, it is not reliable Decision alternatives are totally unpredictable

J. Ajay
III. B.Com
No. 1

10/20

Mid - I
General insurance.

① Types of general insurance.?

Ⓐ Types of health Insurance

↓

Individual Health Insuranceplan

↓

family floater health Insuranceplan

↓

Group health cover

↓

senior citizen health Insurance

↓

critical Illness Health cover

↓

Super top-up policy

Suitability

↓

Individual

↓

whole family

↓

corporate House

↓

Age of 65 and above

↓

funding expensive Treatments

↓

exhausted sum Assured

TELUGU MID EXAM - I

1/11/23
Wednsday

Name :- V.peddi Lakshmi
Class : II BSC (HPC)
Sub :- Telugu
Roll No. : 8

18/20

1, భాషా నిర్మాణంలో వర్ణం, పదం, వాక్యాలలో ప్రాధాన్యతను నిర్ధారించండి.

2, తెలుగులో చేరిన అన్యపదాలు గురించి తెల్పండి.

3, వాక్యాలు నిర్మించేటి, లక్షణాలు భేదాలను వివరించండి.

జవాబులు

2, జ. పరభాషా సంపర్కం వలన అన్య భాషా పదాలు అనేకం తెలుగులో చేరాయి. ఆ అన్య భాషా పదాలను రెండు విధాలుగా వర్గీకరించారు. అవి

1, సజాతీయ భాషా పదాలు 2, విజాతీయ భాషా పదాలు

1, సజాతీయ భాషా పదాలు :-

తెలుగు భాషకు సజాతీయ భాషలైన తమిళం, కన్నడం మొదలైన భాషల నుండి తెలుగులో చేరిన పదాలను సజాతీయ భాషా పదాలు అంటారు.

తెలుగులో సజాతీయ భాషల నుండి చేరిన పదాలు.

తమిళ్ పదాలు :- ఆళ్వారు, జయ్యారు, సాంబారు, యడ, వంటివి.

కన్నడ పదాలు :- గండు హెడారం, హొరాహోరి వంటివి.

2, విజాతీయ భాషా పదాలు :-

ఇవి కూడా రెండు రకాలు ఉంటాయి.

1, ఇండో ఆర్య భాషల నుండి వచ్చిన పదాలు 2, పరదేశ భాషల నుండి వచ్చిన పదాలు.

1, ఇండో ఆర్య భాషల నుండి వచ్చిన పదాలు :-

భారతదేశంలోని మరాఠీ, ఒరియా భాషల నుండి పొరుగు జిల్లాలలో ఉండడం వల్ల కొన్ని పదాలు తెలుగులోనికి చేరాయి. తెలుగులో చేరిన పదాలను చూద్దాం.

మరాఠీ పదాలు :- భళిభళీ, దొంగడా, కిరణా, కిరాయి, పొంగా

ఒరియా పదాలు :- బుగత, బొంగట్టా, కందాల

Mid - II

M.Chandubabu
I st B.Sc (MPC)
Roll. No-5

13/15

1. ఆధునిక కవిత్వ స్వభావాన్ని వివరించి, ఆధునిక కవిత్వ లక్షణాలను తెలపండి.
2. "తాతకో నూలుపోగు" లో ప్రసాదమూర్తి చెప్పిన భావమేమి?
3. తెలుగు కథానికా వికాసాన్ని వివరించండి.
4. 'భయం' కథ లోని రచయిత సందేశాన్ని రాయండి.

1) ఆధునిక కవిత్వానికి నవ్య కవిత్వం, అభినవ కవిత్వమనే పేర్లు ఉన్నాయి. సంప్రదాయాలను, సంప్రదాయికమైన విశ్వాసాలను, ఆచారాలను విడనాడి, ఆధునిక శాస్త్ర విజ్ఞానంతో, హేతువాద దృష్టితో సమస్యలను పరిశీలించడాన్ని ఆధునికత అనవచ్చు. ఈ ఆధునికతతో కూడినదే ఆధునిక కవిత్వం. పాశ్చాత్య నాగరికత, ఆంగ్ల భాషా ప్రభావాలను ఆధునిక విజ్ఞాన శాస్త్రాల పరిచయంతోను సమాజంలో హేతువాద దృష్టి ప్రబలింది.

1857లో జరిగిన ప్రథమ స్వాతంత్ర్య సమరం కారణంగా జాతీయ పునరుజ్జీవనం జరిగింది. రాజారామ మోహన్ రాయ్ ప్రారంభించిన సంఘ సంస్కరణోద్యమ ప్రభావంతో తెలుగునాట కందుకూరి వీరేశలింగం బ్రహ్మ సమాజం ద్వారా సంఘసంస్కరణలు నడిపించారు. 'వివేకవర్ధిని' పత్రికను ప్రారంభించారు. రాజశేఖర చరిత్ర అనే పేరుతో తొలి నవల వ్రాశారు. బ్రహ్మ వివాహం అనే ప్రహసనాన్ని రచించి మూఢవిశ్వాసాలను ఖండించారు. కందుకూరి ప్రారంభించిన సాహిత్య, సాంఘిక ఉద్యమాలు యువకులను ఆకర్షించాయి. ఆ కాలంలో ప్రారంభమైన పత్రికలు, ముద్రణాయంత్రాలు కవుల విజ్ఞానానికి దోహదపడ్డాయి.

SAS Govt College NRPM

MID Exam - II

K. Sridevi
B/ZC
Roll no : 5

14/15

1) write the essay on pearl formation

2. Describe the water vascular system in starfish

-: Answers :-

1. pearl formation :-

although a number of bivalves have a ability to the produce pearls, high quality pearls are obtained from pearls oyesters of genus pinctada. it Belongs class bevalvea, family - pteriedae

a number of species of genus like vulgaris, p chemnitzi, p margaritifera, p aromiodes are found in indian water resocurces like kurch, gulf of mannar and palk bay.

pearl formation :- pearl formation is an intreresting phenomenon for protection against inverds like para sites, sand grain of sea weeds, accidently entering the body of the oyester which happen to adhere to a part of its mantle. The mantle epithilium at once encloses it likes a sac and starts to secrete concetric layers of around from defence point layers of completly layers completly enclose and ultimetly pearls is formed.

pearl indrusty :-

atthough peal indrusty may be established only on nature pearl formed by oyesters in the natural conditions but an artificial device developed on large scale the very complited, technal, and taking.

collection of oyesters :

The oyesters are collected from sea bottom by special pearl formation by oyesters the naterial scuB divers remain early morning to mid day period to the collection two months inthe summer season when waters clear in clam.

Rearing of oysters :-

the collected oyesters are stocked and rared special type of cages called raring cages. They are well protected period 10 to 20 days toe recover from the stain physilogical adjustment to the hallaw conditions

insertion of nucles :- The insertion of inclues avery much techinal process and is great importance of pearl industy. in this process a piece suitable oyesters.

The insertion of nucles oyesters are fixed in a desk
Clamp in the position to right valve facion upward
Then the foot and main body has exposed. ore
graft piece into channel is exposed. ore graft tissue
peice placed into channel and nucles is placed over
graft tissue which functions are bed for the graft
for the nucles bamboo peg is quickly removed and
oyesters shells are automatically.

post operational care:-

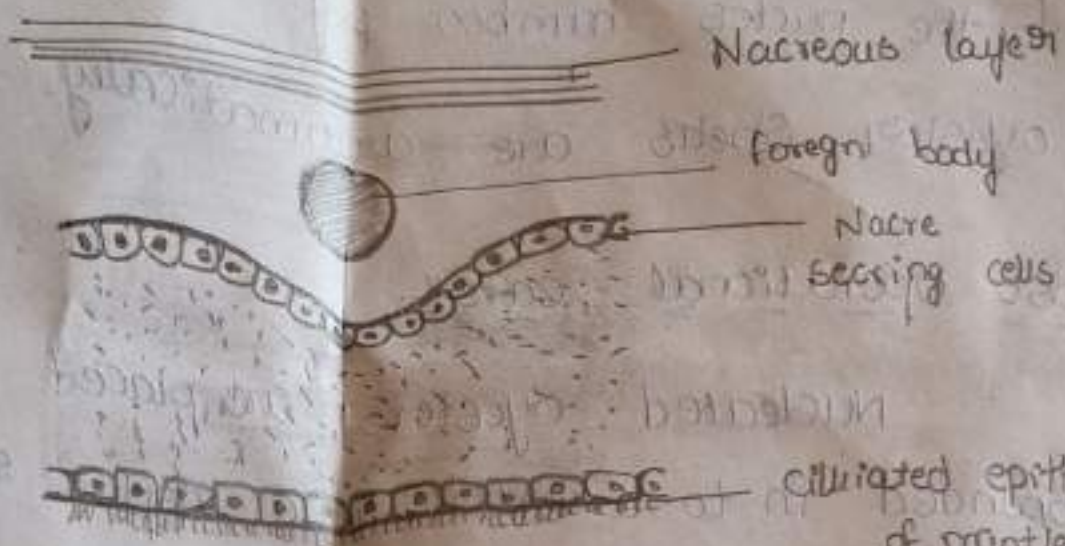
Nucleated oyesters are placed into change and
suspended in to a waters in a depth 2 and 3 meters
for about 6 to 7 days recover from the shock due to
operation grow best in kept like wise 3 to 6 years
The pearl oyester grow best in genarally not
14 maters deep. The pearl oysters grow best a warm
waters genarally more than 14 maters deep.

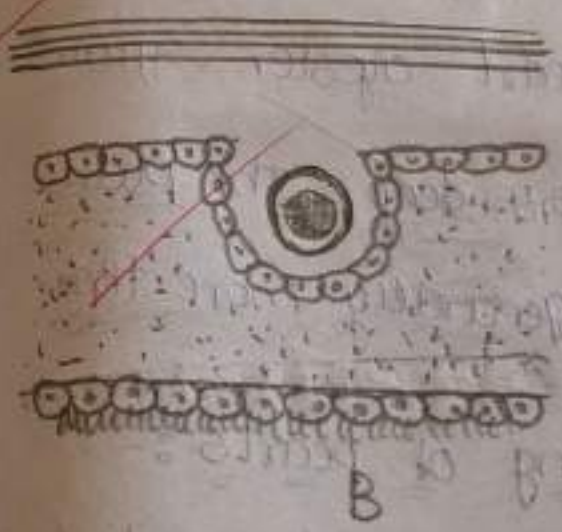
Harvesting of pearls:-

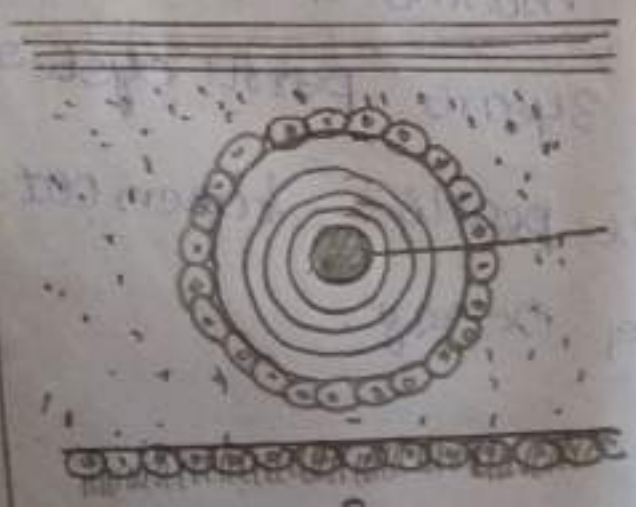
pearls are harvested in the months of decembers
to februarys. Afters completion of 3years pearl oysters
harvested from the sea and the pearls taken out
from the shell verification uses x-ray.

Harvesting of pearls :- pearls are harvested in the months of December February 3 years oyester

composition of pearl :- pearl comprise of water organic matter. Calcium carbonate and residue water - 2 - 4%, organic matter - 3.5 - 5.9% calcium carbonate 90%, Residue 0.1 - 0.8%







2. Water vascular system in Starfish :-

This is the important system in the body echinodermata and is also called ambulacral system. it helps incomiotion and turgidity. The system condition medriporite. a stone canal, a ring canal, 5 radial canal, lateral or podial canals, tube feet, tediman bodies and polian vascids. This system is filled with sea water components here under.

(a) medriporite :- it is circular sieve plate formed of ridges furraos it is located on the oboral side of disc two arms adjoing the medriporite forms the bivium, the remaining 3 arms form trivium. medriporit opens into small collecting canals ampulla.

(b) stone canal :- it is a "S" shaped canal extending between the ampulla of medriporite open into small collecting canals which around mouth.

(c) Ring canal :- Stone canal is conected to circular ring present around mouth on the oral side.

(d) Radial canal :- from the ring canal arise five radial canal into five each on terminates at the tentacles

(e) lateral or podical canal :- A number of small podial canal aris either redial canal each redial canal divids in too branches.

(f) Tube feet :- These are located at the endings of radial canals. each tube feet has proximal ampulla and distal tubular structure ending in a sucker. The core act through ambulacral grooves. The wall of ampulla possess circular longitudinal muscles.

(g) polian vesicles :-

every inter radial part of ring canal canals. each tube feet has proximal ampulla and tubular grooves. The wall of ampulla possess circular muscules ambulacral system.

(h) Tiedman vesicles :- Each polian vesicle sick a pair

19/20

2nd BZC
Roll no: 19

ZOOLOGY MID-I

Essay question (2×10=20m)

1. describe the microscopic structure of cell
2. Give an account of structure of and fuction of mitochendria

Short question (9×5=10m)

3. functions of Plasma membrane
4. classification of chromosomes

Introduction

the cells which occur in animals and Plant containing a true nuclei are called eukaryotic cells they are very much larger than Prokaryotic cells the prokaryotic cells lack a nuclear envelop and the nuclear material scattered in the cytoplasm. the eukaryotic cells are essentially two envelope systems and secondary membranes envelope the nucleus and other cellular organelles

structure:-

The eukaryotic cell comprises the following components

1. cell wall of plasm membrane or both
2. cytoplasm and.
3. Nucles.

Plasma membrane

Plasma membrane is the delimiting membrane of the cell. It is a double unit membrane of about 100° thickness each unit membrane is made of a bilayer of phospholipids, sandwiched between an outer and inner Protein layer each unit membrane exhibits a fluid mosaic model.

cytoplasm

the plasma membrane is followed by a mass of fluid called cytoplasmic matrix or hyaloplasm It is a fluid mass present between the Plasma membrane and nucleus It is an amorphous, homogenous Colloidal liquid various organic substances like carbohydrates, proteins

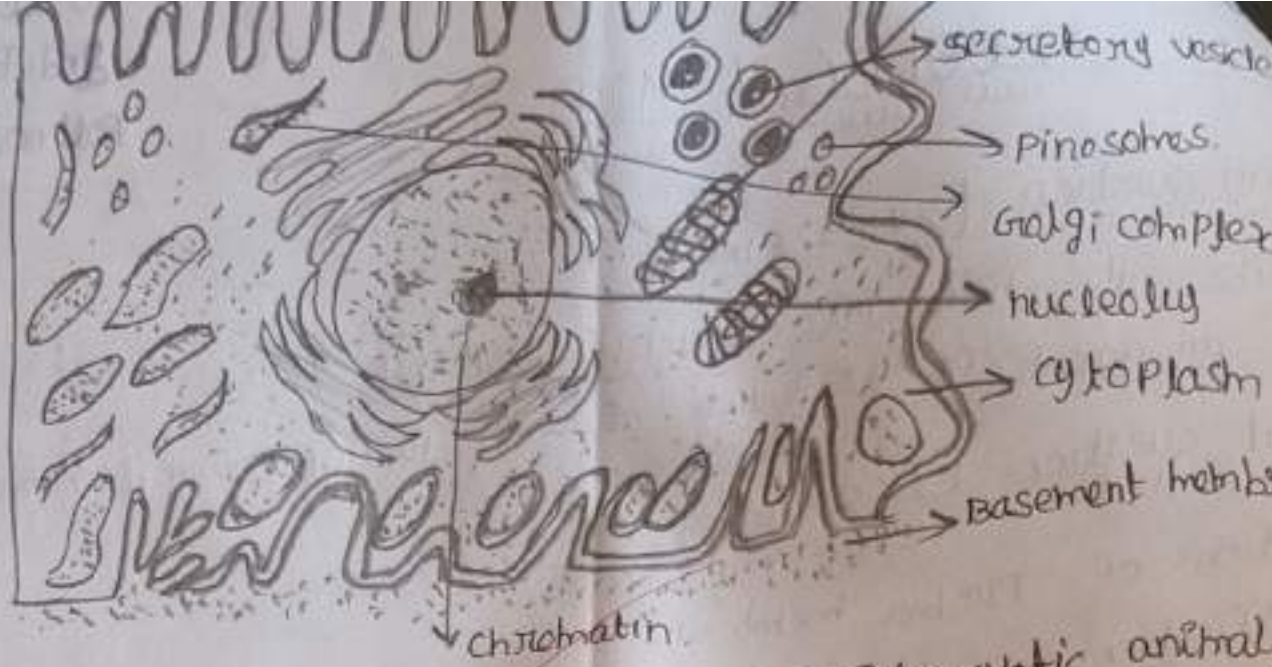


fig:- Ultra structure of a Eukaryotic animal cell.

Cell organells

Endoplasmic reticulum:- The cytoplasmic matrix is traversesed by a network of inter connecting tubules called Endoplasmic reticulum (E.R) it is bounded by a single unit membrane the membrane of the E.R is found to be continuos with nuclear membrane and plasma membrane these tubules from skeletal frame work of the cytoplasmic matrix and provide mechanical support.

centrosomes

in animal cells near the nucleus there is a dense, clear cytoplasm at the time of cell division the centrosome is distinguiste into to centrioles each made of nine symmetrically arranged micrototubles during cell divison from the centrioles extened spindle fibers these fibers play an important role in the chromosomal movement at the anaphase stage of the cells divison.

nucleus

the nucleus can be distigushed in all the eukaryotic cells it is centrally located and spherical oval or shape. Nucleus is described as the dynamic centre of the cell it consists of the structures like nuclear membrane, heterophilic chromosomes. and the nucleolus.

Nucleolus

whith in the nucles one or two spherical bodies are present known as nucleolus or nucleoli it is rich in RNA and proteins it is concerned with ribosome production.

... of E.R and minute particles are found attached called ribosomes these organells are described as the engines of the cells and protein factories. since they are concerned with protein synthesis.

microtubules:

Numerous micro tubules also present in the cytoplasm they are usefull for cyclosis and in transporation.

Large

The mitochondria (Gr, mitos = filament, chondros - granule) are important organelle of the living cells and are generally known as the power house of the cell.

morphology

the mitochondria appear as small granules, thin filaments or short rods that range in size from 0.24μ to 5μ and 500 - 1500μ in number. there are visible bodies which readily change their shape and are found scattered in the cytoplasm exhibiting independent movement or may be restricted to definite regions.

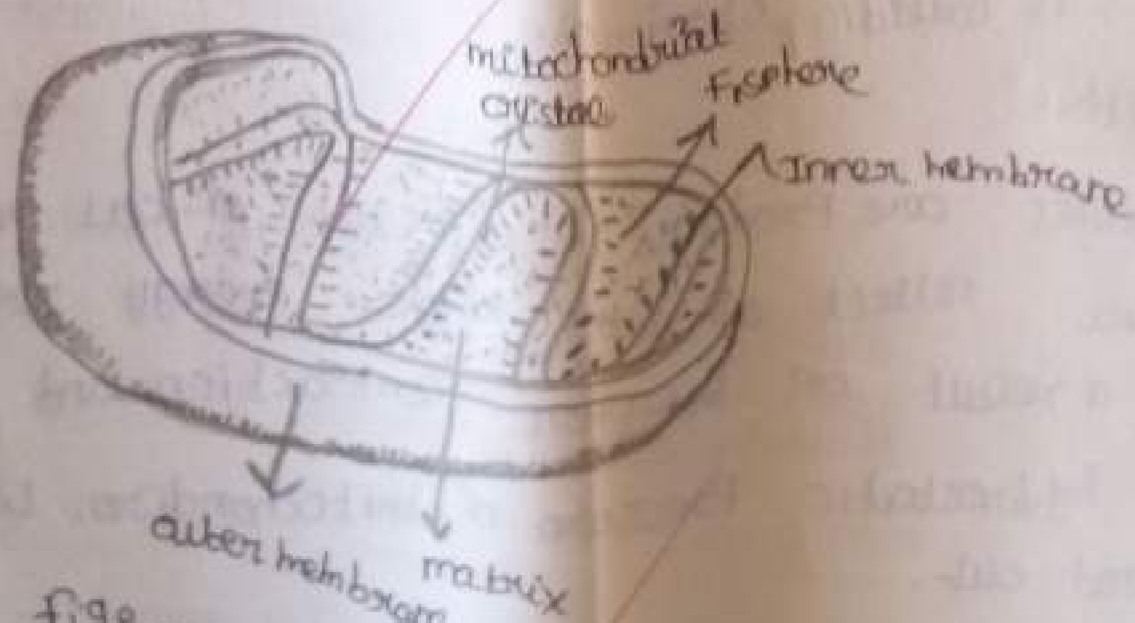


fig: mitochondrion showing various components

The outer membrane

is about 60Å thick it has the same trilaminar structure as that of endoplasmic reticulum and exhibit clear homologies with the membranes of endoplasmic reticulum.

the inner membrane

The outer chamber
Is the space between
in the crests. It is about
The inner chamber
is the space enclosed
space known as mitochodrial
material- the matrix or gel like
or space.

Chemical composition

chemically mitochondria consist of Proteins 70% and liquids 25
35% out of the total liquids 90% is Phospholipids and the rest 10%. is
cholesterol, vitamin E and outer inorganic materials.

DNA

mitochondria also contains DNA. It behaves like the nuclear
DNA and is capable of self duplication therefore the mitochondria.
can also undergo division and maintain their constant number in
the daughter cells. A mitochondrion which is capable of divisio or
duplication is called chondriohe.

ATP Transport

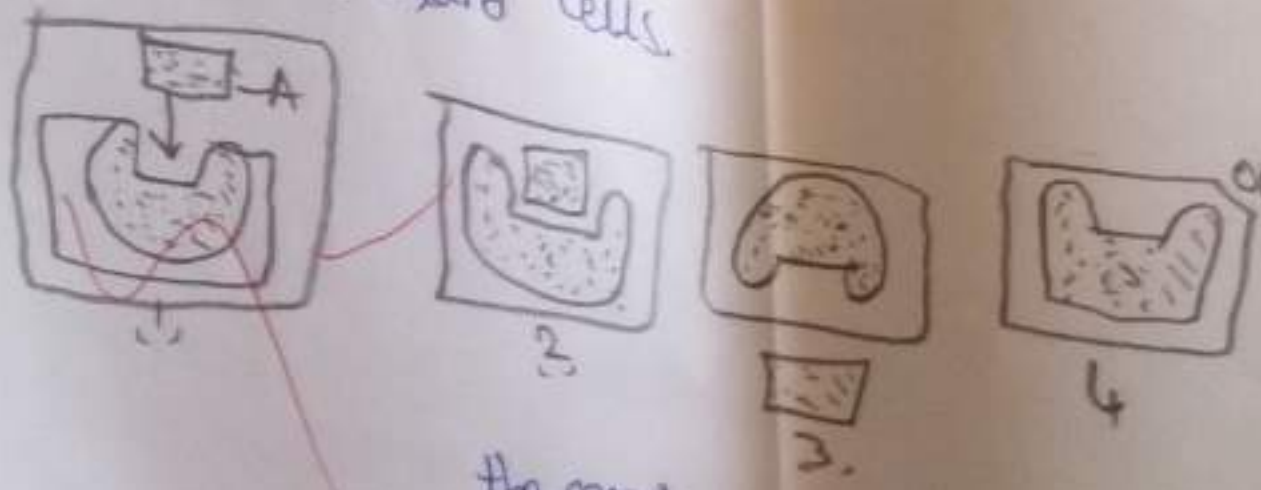
ATP molecules are produced as a result of cell respiration the
mitochondria collect at sites where energy requirement is
high. As a result of membrane contraction and increase in
internal hydrostatic Pressure of mitochondira. water and ATP
are squeezed out.

liquid synthesis

Enzymes present in the mitochondrea
of liquids

with in the inner membrane. It is a wide
matrix filled with homogenous
gel like contain high concentration

it regulates the flow of ions and maintains
cell by different methods.
a) osmosis
Passage of solvet molecules through semipermeable membrane from higher concentrated solution to lower concentrated solution.
Diffusion
transport of ions and molecules through semi heigher to lower concentration where the diffusing particles are in direct contact with the medium Ex:- Exchange of gases.
Facilitated diffusion
substances diffuse from higher to lower concentrion with H acid or a carrier Ex: transport of glucose.
Active transport
transport of substance against concentration gradient (Uphill movement) with help of ATP
Endocytosis
membrane engulfs substances.
i) Pinocytosis: intake of fluid material.
ii) Phagocytosis: Intake of solid molecule.
Exocytosis or cell vomiting or chriocytosis
substances released by plasma membrane extra cellular medium. Ex: Gland cells.



the carrier

4A) Depending on the number of centromeres the chromosomes are classified as

Monocentric chromosome

This is atypical condition where in a chromosomes According to Angell has a single centromere.

Dicentric

each chromosome has two centromeres According to Angell 'y' chromosome of man is dicentric.

Polycentric

It is a condition in which the chromosome has many centromeres Eg: Ascaris megalocephala.

Diffused or non localised centrometric chromosome:

The centromere is not located in position but diffused all over the chromosome As a result the spindle fibres may attach to any region of the chromosome during cell divison eg: Cimex (Bedbug) in some dinoflagellates centromere is absent on chromosome these are called acentric chromosomes.

MID EXAM-1

Zoology - IV B

A. [illegible]
B. Devi prasanna
Roll no - 01
3rd B.Z.C

18/20

1) చేపలను నిల్వ చేయుటలో ప్రాథమిక సూత్రాలు?

2) చేపలను నిల్వ చేయుటలో ఉపయోగించు సాంప్రదాయక పద్ధతులను వ్రాయండి?

Short Questions:-

3) చేపల చెడిపోవడం

4) క్యూరింగ్

2) చేపలు నిల్వ చేయుటలో సాంప్రదాయ పద్ధతులు:-

Sun Drying:

* ఈ విధానంలో సూర్యరశ్మి ద్వారా చేపలలో గల తేమను తొలగిస్తారు
* సూర్యరశ్మి చేపలలో గల సూక్ష్మజీవుల పెరుగుదలను అడ్డుకుంటుంది
* కనుక సూర్యరశ్మి ప్రత్యక్షంగా చేపలు పాడైపోకుండా కాపాడుతుంది

Advantage:-

* ఈ విధానంలో సూర్యరశ్మి ద్వారా చేపలలో గల తేమను తొలగిస్తారు.
* సూర్యరశ్మి చేపలలో గల సూక్ష్మజీవుల పెరుగుదలను అడ్డుకుంటుంది
* కనుక సూర్యరశ్మి ప్రత్యక్షంగా చేపలు పాడైపోకుండా కాపాడుతుంది

Advantage:-

* ఈ ప్రక్రియ చాలా సులభంగా జరుగుతుంది మరియు తక్కువ ఖర్చుతో ఫలితాన్ని ఇస్తుంది

* చేపలు ఈ పద్ధతిని చాలావరకు పరిశ్రమలు ఈ పరిశ్రమలు అనుసరి
స్తారు.

* ఈ ప్రక్రియ ద్వారా ఎండబెట్టిన చేపలు మార్కెట్లో లాభదాయకం
కాదు.

2) salting:-

* ఈ విధానంలో చేపలను ఉప్పును ఉపయోగించడం ద్వారా చేపలలో ఉండే
తేమను నీటి ప్రమాదకరమైన క్రిములను తొలగిస్తారు.

* అధిక గాఢత కలిగిన ఉప్పు ద్రావణం ఉపయోగిస్తారు

3, Pickling:-

* చేపలను ఉప్పు మాధ్యమంలో ప్రత్యేకంగా ఊరబెట్టడం.

* ఇది ఒక ప్రాచీన పద్ధతి.

* ఈ ప్రక్రియ చేపకు ఇతర పదార్థాలు అవసరమవుతాయి

4. smoking:-

* ఈ విధానంలో పచ్చిచేపలను గదుల(లో) చేపలను ప్రత్యక్షంగా ఆరబెట్టి
ఎండబెడతారు

* కర్రల పొగ పొగ పెడతారు.

* ఇది రెండు రకాలుగా ఉంటుంది

a) cold smoking:-

ఉష్ణోగ్రతను 30 డిగ్రీల సెంటీ గ్రేడ్ తగ్గించి పొగ తక్కువగా చేప
మాత్రం ఉపయోగిస్తారు.

6) Hot smoking:-

→ ఈ పద్ధతిలో [illegible] ఉష్ణోగ్రత [illegible] 18°C [illegible]

→ ఉష్ణోగ్రత [illegible]

→ ఈ ప్రక్రియకు [illegible], ఉష్ణోగ్రత [illegible] అవసరం.

A) natural sun drying:-

→ ఈ పద్ధతిలో చేపలను [illegible], తర్వాత వాటిని [illegible] ఎండలో ఆరబెట్టాలి

→ వాతావరణం మరియు స్థల లభ్యతపై ఆధారపడి ఉంటుంది

B) Artificial Drying:-

ఈ ప్రక్రియలో చేపలను శుభ్రపరిచి వాటి యంత్రములను ఉపయోగిస్తారు

వాటి ఉదర భాగంను కత్తిరించి చేపల లోపలి ఇతర పదార్థాలను కూడా బయటకు తొలగిస్తారు.

(1) చేపలను భద్రపరచడంలో పాటించవలసిన నియమాలు:-

(a) శుభ్రపరచుట:-

→ అపరిశుభ్రమైన పరిస్థితులు కలుషితమౌతాయి వలన చేపలు చెడిపోవడం కావచ్చు అనేది తప్పనిసరి.

→ సూక్ష్మ జీవుల చర్యావలన చేపలు తొందరగా చెడిపోతాయి.

* చేపలను పట్టుకున్నప్పుడు కలుషితమైన చేపలు నీరు విలువగా ఉంటాయి
పోలిక గాని వ్యాధులు సంక్రమించలేవు

B) అల్ప ఉష్ణోగ్రత:-

* ఈ విధానంలో చేపలను, రొయ్యలను, పీతలను నిల్వచేస్తారు

* ఉష్ణోగ్రతను - °C సెంటిగ్రేడ్ లో ఉంచుతారు

C) శుష్కీకరణ:-

చేపల శరీరం నుంచి నీటిని ఆవిరులకు లోనుచేయడాన్ని శుష్కీకరణ అంటారు

Eg :- ఎండు చేప

D) లవణాలను ఉపయోగించుట:- పురాతనమైనది

=> చేపలను నిల్వచేయుటలో ఈ విధానం అతి

=> చేపలకు బాహ్యంగా మరియు లోపలి భాగంలో ఉప్పును వేస్తారు

E) ప్రిజర్వేటివ్:- మరియు రసాయనాలు

పాడవకుండ ఉండడానికి అనేక ప్రిజర్వేటివ్ల

చేపలు పనిచేస్తాయి.

సమర్థవంతంగా ఉపయోగిస్తారు

* vienegar చేపలు, రొయ్యలు నిల్వకు ఉపయోగిస్తారు

* phenolic compounds - నిర్జలీకరణకు ఉపయోగిస్తారు

* salicylic Acid and Boric Acid - మాంసం కూరకి ఉపయోగిస్తారు

* sodium acid sulphate micture - మంచి నిల్వకారులు

* sodium hypochlride - మంచి నిల్వకారి

1. పాలను గామా కిరణాలకు గురిచేయడం:-

* దీనినే Irradiation treatment అంటారు

* ఎంజైమ్స్, సూక్ష్మజీవులను

* అధిక ఖర్చుతో కూడిన విధానం

* దీని వలన radio nuclides కూడా పాలను చేరుతాయి

③ పాలు చెడిపోవడం:-

Ans 3 బ్యాక్టీరియా:-

=> చనిపోయిన పాలు చెడిపోవడానికి మొదటి కారణం బ్యాక్టీరియా

=> ఈ బ్యాక్టీరియా పాలు యొక్క లోపలి భాగాలలోను, పొదుగు మరియు ఇతర భాగాలలో ఉండి, చెడిపోవడానికి అవుతుంది

=> బ్యాక్టీరియా చర్యల వలన చనిపోయిన చెడు రంగు

2, ఎంజైమ్లు:-

=> పాలు సహజంగా తెల్ల రక్త కణాలు కనుక వాటి కారణం లోపల సహా ఎంజైమ్ ఉంటుంది

=> ఈ ఎంజైమ్‌లు పాలలో గల కొవ్వులను, కణాలను విచ్ఛిన్నం చేస్తుంది

3 రసాయనిక మార్పులు:-

=> పాలు అధిక మొత్తంలో ఆక్సిజన్ తో అసంతృప్త కొవ్వులు మరియు నూనెలు కలిగి ఉండటం వలన ఇవి త్వరగా ఆక్సీకరణ చర్యకు లోనవుతుంది

=> ఈ స్థితిని Rancidity అంటారు

4) ఉష్ణోగ్రత:-

=> చేపలను నిల్వ చేయునప్పుడు, వాటి ఉష్ణోగ్రతను బాగా తగ్గించటం

వలన అవి చెడిపోకుండా ఉంటాయి.

=> అనగా ఉష్ణోగ్రతలు బాగా తగ్గించినా మరియు బాగా పెంచినా

రసాయనాలు మరియు బాక్టీరియాలకు పెరుగుదల తగ్గుతాయి

5) క్యానింగ్:-

=> ఇది ఎక్కువ ఖర్చుతో కూడిన విధానం

=> చేపలను ఎక్కువ కాలం నిల్వ చేయాలనుకున్నప్పుడు, నాణ్యత గల

చేపలను ఎంపిక చేయవచ్చు

=> ఈ పద్ధతిలో చేపలను నిల్వ చేయడానికి ప్రత్యేకమైన ఆహార్యమైనటువంటి

టిన్ లేదా ఇతర డబ్బాలను ఉపయోగిస్తారు.

=> చేపలను నిల్వ చేయు వాటికి వచ్చినప్పుడు అధిక వేడిని ఉపయోగిస్తారు

అవసరం అయితే చేపలను ఎంజైముల మాధ్యమంలో కొద్దిసేపు ఉంచుతారు

తరువాత స్టెరిలైజేషన్ చేస్తారు.

=> తరువాత లేదా డబ్బాలను చేపలను గాలి సోకని లేదా గాలి తగలని చిన్న, చిన్న

పెద్ద డబ్బాలలో నిల్వ చేస్తారు.

=> నిల్వ చేసిన తరువాత ఈ డబ్బాలను గట్టిగా సీల్ వేస్తారు. డబ్బాల మీద

పైన నిల్వ చేయబడిన లేదా పదార్థాల మీద వివరాలు, అనగా lables

అతికిస్తారు.

=> ఈ విధానంలో సాధారణంగా Herring చేపలను maketer చేపలను

macterel చేపలను Anchovies చేపలను Bongu చేపలను నిల్వ

చేస్తారు

=> మరియు నాణ్యత కలిగిన చేపలను మాత్రమే దీనికి ఉపయోగిస్తారు.

K. Sridevi
I st. B.Zc

1. polymorphsim in coelenterates – 6
2. Elphidium life cycle – 6
3. coral and coral reefs – 4
4. peripatus. – 4

19/20

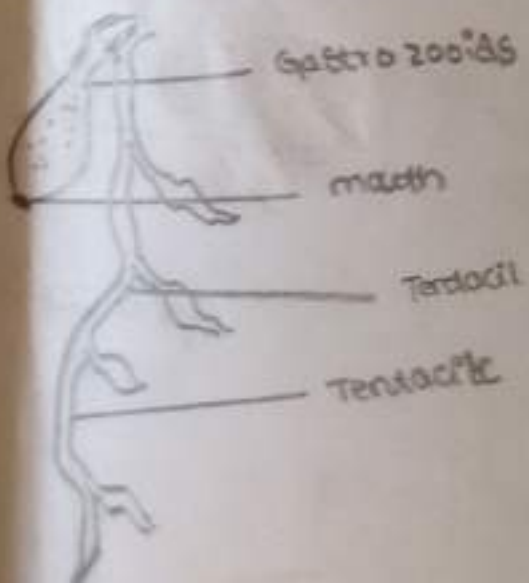
-: Answers :-

1. polymorphsim in celenterates

poly - many morph - form

polymorphsim is best seen in siphnopores if only two zooids there that is in a die morphic if three zoids trymorphic in siphnopores different kinds of polyps and medusa are seen modified polypoid forms :-

1. Gastro zooids :- These are called nutritive zooids These zooids are ment for feeding they are tuble with mouth and coelentiran usually tentacil eranges from of Base of polyp the tendacles may Be Branches provided nematocytes are branches are called Gastrozooids. This zoids aeje used for digestion.



7. (Gastro zooids):- Dactylozooids

These are called Stenozoids these are Protective zooids it usually drive from protective from Gastro zooids By the loss of mouth

Body is elongated highly extencible along tentacles are present provide with remato cycles and dactylo zooids often associated with Bonofores. Bonofores is called gonophores.

8. Gono zooids :-

These are reproductive zooids these like Gastro zooids. Blasto styles modified polypoid wich produce. This Gono zooids are club shape with out mouth and tentacle.

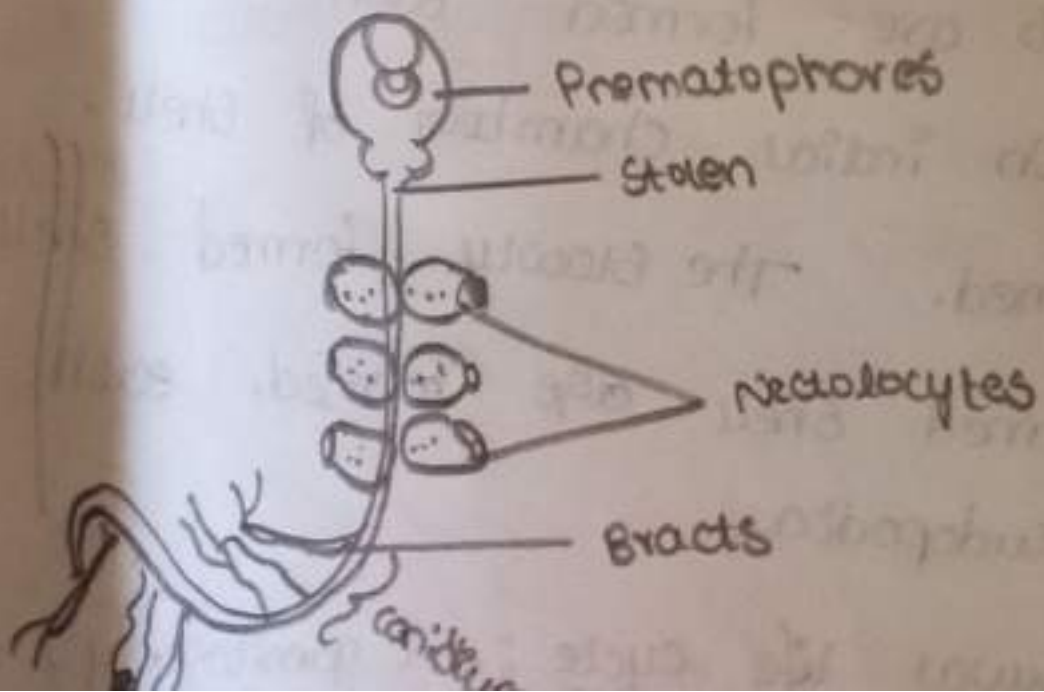
Gono zooids.

K. Sridevi

1) Nectalo cytes :- These also called Swimming Bells nemato phores are called bell shaped, 4 redial canal and one ring canal is present mouth and mani brium sensce, are organce are Absent

Bracts :- These are orgin medusa. They are leaf life Stucture, Body thick zalatain mass they may have heimated shape They are in nature They have protective zooids.

pnuematophores



2. Elphidum - life cycles

⇒ elphidium occures (Brakish) two form nature mic
and megalosperic form.
forms are undergoes. megalosperic asexual orga
They are sexual method roatete alternation of g
each other this phenominia alternation of generatio
asexual cycle sechiogony (Sachizony)

→ asexual elphidium fist obsered by lister 189
This is method megalosperic, and microsperic o
cyto plasm. megalosperic scytoplasm sexual orga
microsperic, asexual organsim megalosperic.

This by mutliple fission rou
Sorall amount of cytoplasm so that many amo
cells are formed. each emboied cells probaculem
with intial chamber of shell. Newly formed sh
formed. The slowly formed shell cytoplasm ute
formed shell are formed. each emolule and bec
pusudopodia.

3. corals and coral reefs :-

Introduction :-

* a coral reef a ridge of lime stone the upper part of which is near surphase of the sea
* and is formed continue carbonet secrited by the organism chiefly coral these coral reefs two some extense prov vents flow of water.
* Below 20°c centrigate active soo creaping the near the surphase.
* Below 50°c centrigrade corals also require abudently like molaskans Brankiyo corts.
* space Between reef and reef shore none as "reef flat"
* it is the deep and wide called "lagoon"

coral reefs they are 3types

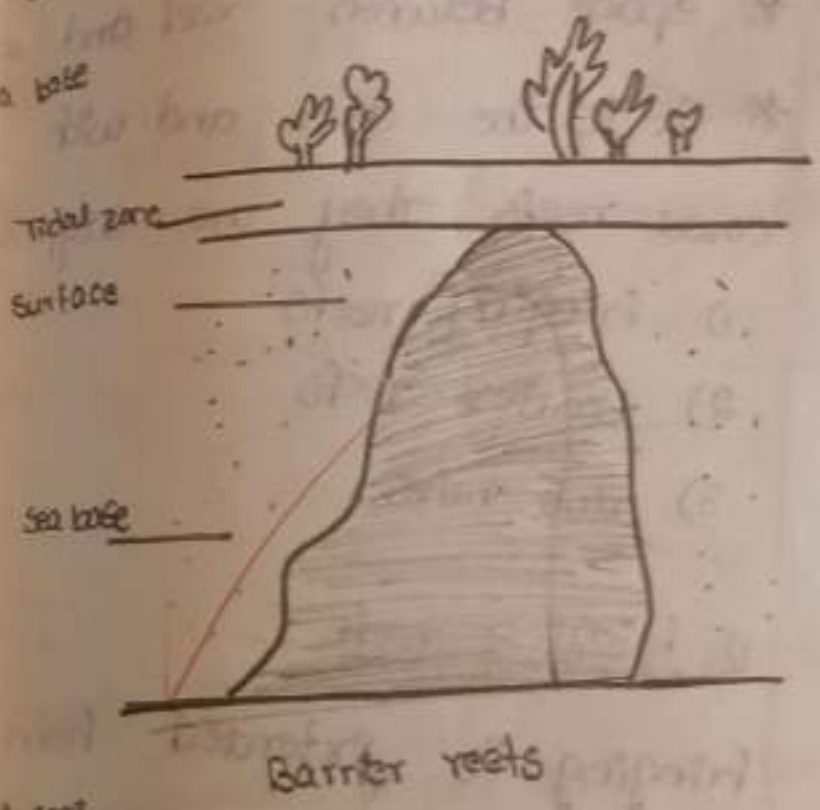
1) fringing reefs
2) Barrier reefs
3) atol refes

1) fringing reefs :-

fringing is extented from the shore upto 400m into see and takes cantere neare the surphase. it is separeted

the flagella gamit show that relation ship Betwee
sarcodina and mastigophora The gamit formed
haploid number of chrozomes they out through
face the cell and swimming water and some time.
Isogany. zygote fussion animals fuse pairs and fo
zygote will haved haploid nucles that flagella
are lost each zygotes. polly stonella.

fringing reefs



Barrier reefs

atoll reefs

Barrier reefs :-

it resembels that fringing reefs The refrract is
at and extends upto 3000 feet reefs flat is half
(½) 60-300 feet in depth so it is separated from Shore by
lagon The Best Example for Barrier great Barrier reef
Australia wich is 1200 miles long.

Atolls reefs :-

atolls are more or less curcular and horse shu shaped some
places incloses in deep lagoon wich my be fringing from
are one mile to 40 mile and reefs suvadia of maldives
Best example for atols.

4

S.A.S.J Govt Degree College
Narayanapuram
Zoology MID-2

B. Taraki Latha Bai
Roll No. 21

13/15

Q. DNA Replication?

Q. Write an essay on Modern Synthetic theory of evolution?

Answer

(1) A:- DNA replication :-

Uni and Bidirectional and replication fork.

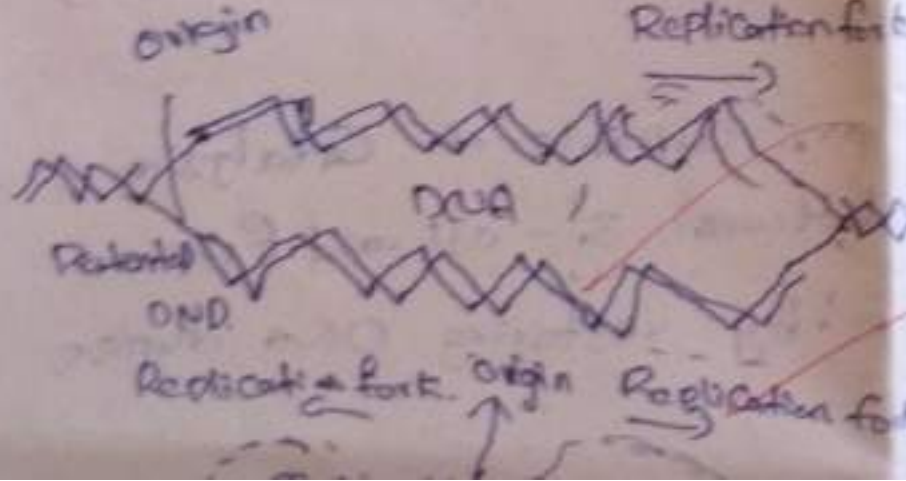
(a) Bidirectional replication:-

DNA Molecules replicate as circles and hence initiate with in the helix. Eukaryotic chromosomes Contain multiple expanding replication eyes. in Contract to single eye of the Prokaryotic DNA. DNA Synthesis with in a given replication unit of a site termed as the "origin". Prokaryotes have single origion, "replication Forks" in replication.

(b) unidirectional replication :-

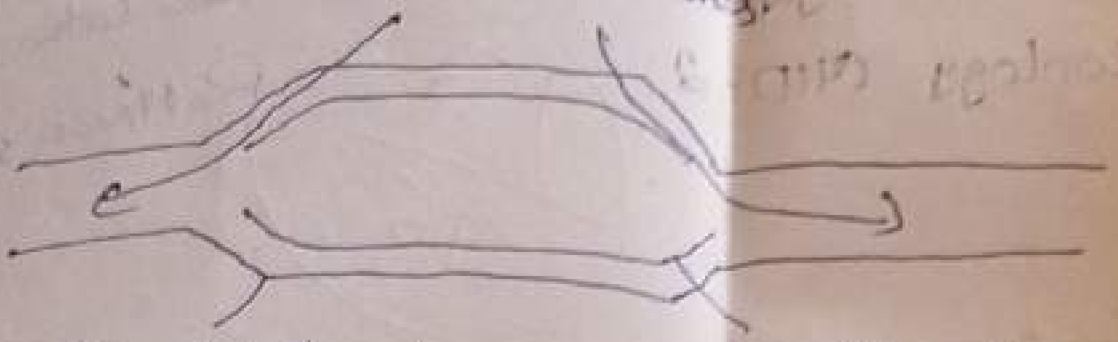
In the type one of the two ends of eyes remains stationary and the other end serves as a replication fork

e:- mitochondrial DNA (mt DNA)



* A replication fork is initiated at the origin and fork moves sequentially along DNA.
* Replication is unidirectional when a single replication fork is created at an

(Q'^



Enzymes of DNA Metabolism:-

3 types - (a) nuclease
(b) Polymerases.
(c) ligases.

(a) nuclease enzymes help to hydrolyze or break down a poly nucleotide chain into incleotides. A Polynucleotide is held together by 3', 5' phophodiester bonds and a nuclease enzyme will attack either the 3' or the 5' end of the linkage.

Endonucleayse enzymes

Endonuclease enzymes react on the interior bonds of polynucleotide chain and a cut into 2 pieces creating & "nick".

(b) Polymerases or replicase enzymes:- Polymerase enzymes chtalyzes the formation of Polymer and synthesize are poly nucleotide.

(c) DNA ligases :- These are capable of catalyzing phosphodiester bond formation between 3' - OH and free 5-P. groups of a nick; there by restoring DNA duplex.

(2) A :-

(1) Denfinition :-

The modern synthetic theory of evoluction describes the evolution in terms of genetic variations in a Populane that leads to the formation of a new species.

(2) Introduction :-

Darwin's book, The origin of species by meaing of Natural selection, founded a strong ground for evolutinary theories that favoured the idea that all the organism.

The modern synthesis describe the fusion or mergar of mendelian genetics with Darwinian evolution that resulted in a unified theory of evolution.

The modesn synthesis recognized that the majority of mutations are deleterious or have a harmful effer and the mutations that are adavntgeaus usualy isolated from one other.

There are serval key players involved in modern synthesis. The theory relied on the population genetics work of R.A fisher and sevel wright.

Theodosius Dodzhansky made extensive studies of natural population of theory.

(1) Recombination or variations:-

Recombination is the newly produced genotypes and derived from the existing gene. the gene Combination having similar individuals with two types of alleles mixing of the chromosomes in the Course of sexual reproduction of two Parents Crew the individuals, an exchange of the chromosomes. chloromosomal mutations like inversion, deletion, duplication, translocation, Poly Polidy all are resulting in the recombination of gene.

Natural selection is typically the most Powerful mechanisms Causing evolution to happen. However. it only. chooses among the already existing variation in a population.

Mid Exam - 1

ZOOLOGY

L. Savishtma Rani
3rd B.Z.C
Roll No: 16

18/20

1 What is the current status of Aquaculture and Global and Natural level

2. Explain the conservation and management of methods of Nursery ponds

shorts :-

3. Blackish water aquaculture
4. water Quality

Answer

1A. Aquaculture in India :-

* fisheries in India is a very important economic activity and a flourishing sector with varied resources and potentials.
* only After the Indian Independance, has fisheries together with agriculture been recognized as an important sector.
* the vibrancy of the sector can be visualized by the 11-fold increases that India achived in fish production in just six decads from 0.75 million tonnes in 1950-51 to 9.6 Million tonnes During 2012-13.
* This resulted is an unparalleled average annual growth rate of over 4.5 percent over the years which has placed the country on the foretront of global fish production, only after china.
* India is also an important country that produces fish thorough aquaculture in the world

presently the country ranks annual fish production of in total fish production with about 9.06 million metric tonnes.

* fresh water aquaculture contributes to over 95% of the total aquaculture production.

* The three Indian major carps, namely Catla (catla catla), rohu (Labeo rohita) and mrigal (Cirrhinus mrigala) contributes the bulk of production to the extent of 70-75% of the total fresh water fish production. followed by silver carp, Grass carp, common carp, catfishes forming a second important group contributing the Balance of 25-30%.

* the national mean production levels from still-water ponds has gone up from about 600 kg / hectare/year in 1974.

* the fresh water prawn forming has received increased attention only in the last two Decades due to its high consumer Demand.

* India's aquaculture products Basically can be classified into freshwater and brankish water production.

* some of the important species cultured in india are the Indian major carps and shrimp

* Brankish water aquaculture in India is concentrated around the giant finger prawn as the single most important species.

* with the production levels of 10-12 tonnes / ha / crop of 3-4 months Duration the production of this species has reached to a level of 104705 16 tonnes During 2012-13

* the traditional practice of fish culture in small ponds. in eastern India is known to have existed for hundreds of years

* the technological break through in induced breeding

2.A Introduction :-

The primary requisite of fish culture is the availability of land for fish pond and quality fish seeds Although production of seeds may be satisfactory but rearing of these tender baby fishes in well managed Nurseries, Rearing and stocking ponds must be thoroughly known Generally, in scientific fish farming number of various sizes of ponds are required for rearing of various stages of fishes Namely:-

(1) Nursery pond - rearing of spawn to fry stage for about 15 days.

(2) Rearing pond - Rearing of fry to fingering stage for about 2-3 Months.

(3) Stocking pond - Rearing of fingering to marketable sizes/ Adult fishes.

PRE - STOCKING POND MANAGEMENT :-

As practicable a possible, any fish pond should have the following management techniques applied for proper survival and growth of fish for sustences :-

(1) Eradication of weeds / vegetation :-

-> Weeds and grasses deprives pond of nutrients
-> provides shelter to predatory insects and animals.
-> these be manually remove.

(2) Dewatering of pond :-

-> If admissible allow to dry up the ponds completely.
-> Mineralization of organic matter takes place.
-> poisonous gases escapes.

(3) Control of Aquatic Weeds :-

-> Larval & adult stages of insect prey upon fish hatchings

(4) Liming :-

-> Liming is done to increases the pH value of soil towards Alkaline

-> It changes the soil structure.

-> It serves as a fertilizer.

(5) Manuring :-

Several types are recommended

-> Raw cattle Dung (RCD) applied @ 10,000 - 20,000 kg/ha 1yr applied after 2 weeks of liming

1st day — RCD + single super phosphate = 5000 kgs/ha soak in water
+ Ground nut oil cake = 250 kgs/ha overnight and
= 250 kgs/ha spread over the water.

2nd day — All Above ½ the Dosage

3rd day — stop manuring

4th day — Appearance of planktons.

5th day — Rich plankton appearance
ideal for stocking seeds.

(6) parameters of water :-

Green & Blue - Due to predominance of phytoplankton - add RCD

Brown & Rich in zooplankton - very ideal for fish culture.

Dirty - silty suspension - and little lime mixture.

clear & Turbid - less predective - add additional manuring

pH - 7.5 - 9.0 highly productive for fish culture

...Sarishma Rani
...B.Z.C
...ll No :- 16

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3A. Brackish water Aquaculture

* Brackish water Aquaculture is also called coastal aquaculture
* Aquaculture production in India can be classified mainly into freshwater and Brankish water production.
* Brankish water is a source of water that is some what salty But not as salty as seawater.
* Brankish water fish farming as an empirical practice has long been popular in India
* over the past Decade efforts to improve production have met with constraints and prospects
* market sized fish and shrimp are regularly Harvested in the spring through nets place near the sluice gates
* there is no fertilizer or feeding facility
* In Kerala, two types of shrimp farming are traditionally practiced in the lowlands.
* this type of ecosystem exists where rivers empty to the ocean and in coastal Marshlands.

4A. Quality of water :-

water quality Describes the condition of the water including chemicals, physical, and Biological charateristics usally with respect to it's suitability for a particular purpose such as Drinking or swimming.

* It is important that farmers pay attention to the water's chemical and physical factors.
* Water quality can quickly decline in fish ponds as fish use the water to live feed reproduce grow and excrete waste into

* fish farmers who wish to be succesful should therefore understand the quality of their water the needs at the fish and to manage water quality factors.

S.A.S. Govt Degree College

Zoology MID EXAM - II

Sk. V. Rizvana
20355711003 5
R.NO - 21

14/15

1) మంచినీటి రొయ్య మాక్రోబ్రాకియం రోసెన్‌బర్గి సాగు విధానము మరియు ప్రాముఖ్యతను వివరించుము.

2) హైపోఫైజేషన్ అనగానేమి ? దాని గురించి క్లుప్తంగా వివరించండి.

Answers

1A) రొయ్యల పెంపకమును కూడ చేపల పెంపకంలాగానే సాంప్రదాయక, విస్తార, పాక్షిక సాంద్ర మరియు సాంద్ర పద్ధతులలో చేస్తున్నారు.

(a) విస్తార సాగు పద్ధతులలో రొయ్యల పిల్లలను, లేక బాల్య దశలను సహజ వాతావరణాల నుండి సేకరించి పెద్ద కొలనులను, వరి పొలాలను పెంపకం జరుగుతుంది.

(b) సహజ ఆహారముపైనే ఆధారపడి వరి కోసిన తర్వాత వరకు ఈ రొయ్యలు పెరుగుతాయి.

(c) సాంద్ర పెంపకంలో సాధారణంగా ఎంపిక చేయబడి సాగు చేయబడు రొయ్య మాక్రోబ్రాకియం రోసెన్‌బర్గి.

1) ఈ రొయ్య ప్రకృతిలో మంచినీటిలో గాని, సముద్రముకు దగ్గరగా ఉండిన సముద్రపు నీటిలో గాని క్రమంగా పెరుగుతున్నను.

2) కొంత లవణీయతకనుగుణంగా అనుకూలతను చూపిస్తుంది.

3) తక్కువ కాలంలో ఉపరి జలాల్లను, ఎక్కువ కాలంలో లోతైన జలాల్లను నివసిస్తుంది.

4) లైంగిక పరిపక్వత పొందిన జీవుల్లో ఆడ డింభకములు పాక్షికలవణీయముల నీటి జాయుగ కోశములనేర్పరుస్తాయి.

మంచినీటి రొయ్యల పెంపకము వలన ప్రయోజనములు :

ఉప్పునీటి రొయ్యల పెంపకముకన్నా మంచినీటి రొయ్యల పెంపకము శ్రేయమైనదని చెప్పుటకు గల కారణాలు.

1) పాలకంచు రొయ్యలు లేదా స్కాంపి (Macrobrachium rosenbergi) రొయ్యల ప్రపంచ ఉత్పాదకత (1994-95) ---- 34 వేల టన్నులు.

2) దాంట్లో ఆసియా ఖండం ఉత్పాదకత — 29 వేల టన్నులు.

3) దాదాపు 92% కావున పాలకంచు రొయ్యలకు అంతర్జాతీయ ప్రాముఖ్యము ఉన్నది.

4) మంచినీటి చెరువుల్లో పెరుగుతాయి. కావున తీర ప్రాంతములో ఉండు కాలుష్యం, ఉప్పెనలు, ప్రకృతియము, వరద మరియు తుఫానుల పరిస్థితుల ప్రభావము తక్కువ.

5) మంచి నీటిలోనే కాదు ఉప్పు నీటిలో కూడా పెరుగుతాయి. కావున ఎక్కువ భూభాగములో పెంపక పరిధులను స్థాపించి అధికమొత్తంగా పొందవచ్చును.

6)

8) చేపలు నాణ్యత, పరిమాణం సాగుకు అనుగుణంగా చెరువుల ద్వారా చేపలు
ఆహార నీటి యొక్క నాణ్యతను కాపాడుతున్నాయి. తద్వారా అధిక దిగుబడి రాదు
-వస్తుంది

9) చేపలు పెంపకం ప్రారంభించి కాలము ఎక్కువగా ఉండును పెరుగుదల వేగంగా
ఉంటుంది కావున చాలా ఉత్పత్తికర్తలు వ్యయము తగ్గుతుంది

10) చేపల పెంపకం ఉపకరణాలు ఖరీదుగా ఉంటాయి. కావున రైతులకు
కనీసము కొంత నీటి ఆదాయాన్ని సాధించవచ్చు.

సమస్యలు:

1) చేప పిల్లలకు గిరాకీ ఎక్కువ.

2) చేప పిల్లల ఉత్పత్తి కేంద్రాలు సరిపడిన పిల్లలు అందుబాటులో లేవు.
కేరళలో ఎక్కువగా ఉన్నప్పటికీ మన రాష్ట్రములో అంతంత మాత్రమే. [illegible] ఇంటర్ నేషనల్
మాత్రమే 30 మిలియన్ల చేప పిల్లలను ఉత్పత్తి చేయగలుగుతున్నారు.
కావున గిరాకీ మేరకు చేపల పిల్లలు సరఫరా అందుబాటులో లేదు.

3) చేపలన్నీ ఒకే పరిమాణంలో పెరగవు. పెద్ద చేపలు వేగంగా పెరుగుతాయి.
ఇట్టి అసమానతల వలన ఉత్పాదకత తగ్గుతుంది.

4) పొలుసు వ్యాధి సోకడంతో [illegible] భక్షణ చేస్తాయి.

5) మంచినీటి చేపలకు ఎక్కువ ప్రాముఖ్యత లభిస్తుంది కాని
అందుబాటులో లేకపోవడంతో ఉప్పునీటి చేపలకు ఎటువంటి ప్రాధాన్యత
-ఇవ్వబడుతుంది

పై సమస్యల నుండి బయటపడగలిగితే మంచినీటి చేపల పరిశ్రమ
ఎంతో అభివృద్ధి? ప్రభుత్వం ప్రోత్సాహకాలు అందించాలి.

2A) (i) కంప్యూటర్ గ్రంథాల సేకరణ:

1) జీవుల యొక్క యొక్క ద్వారా శోధన [illegible]
గ్రంథాలయాలు [illegible] గ్రంథ [illegible]
[illegible] వ్యవహరిస్తారు. ఈ గ్రంథ నుండి విడుదల [illegible]
ప్రీ ప్రాసెసింగ్ పద్ధతి, కంప్యూటరైజింగ్ పద్ధతుల ద్వారా [illegible]
[illegible] పాఠకులు [illegible], [illegible] అందిస్తాయి.

2) [illegible] సేకరించబడిన సాహిత్యం, [illegible]
[illegible] [illegible] [illegible] [illegible], [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible]

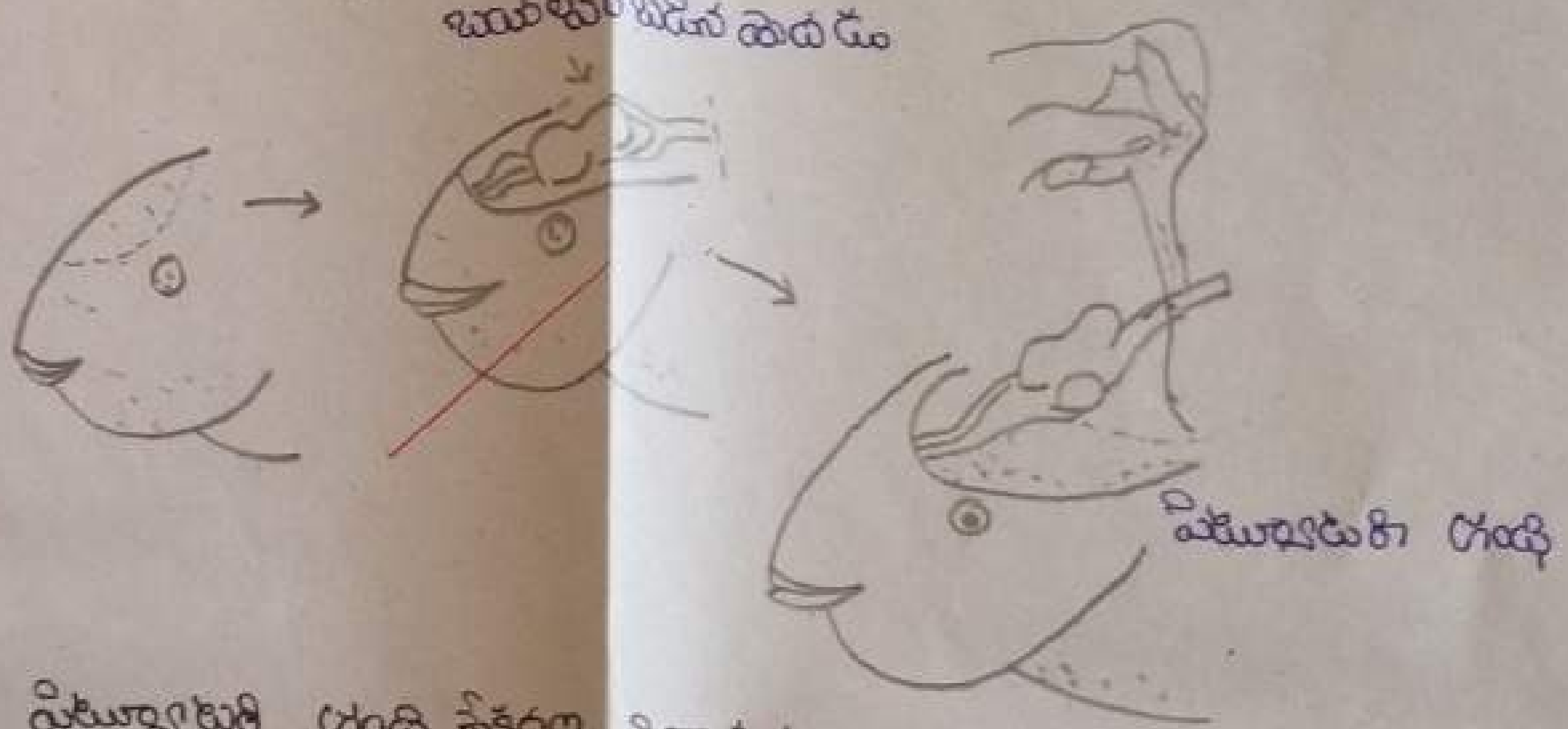
3) గుడ్లన్నీ ఒకే పరిమాణంలో పెరిగి. ఎగ్ గుడ్లు వేగంగా పెరుగు-తాయి.

4) నాలుగు వేటిలా సమయంలో ఎంచుకొని పిల్లలను భక్షణ చేస్తాయి.

5) పిట్యూటరీ గ్రంథి ద్రావణాల నుండి హార్మోన్ లను ఇంజెక్షన్లుగా వ్యవహరిస్తారు. దాత చేపయొక్క గ్రంథుల నాణ్యత బట్టి హైపోఫిసేషన్ ప్రక్రియ యొక్క ఫలితం ఆధారపడి ఉంటుంది.

6) సేకరించబడిన పిట్యూటరీ గ్రంథులను గాజు సీసాల లో నిలువచేయవచ్చును లేదా రెండు సంవత్సరాల్లో 5-6 సం॥ల వరకు నిలువచేయవచ్చును.

100% ఆల్కహాల్ అబ్సొల్యూట్ లో నిల్వచేయబడిన గ్రంథుల 5 సంవత్సరముల వరకు క్రియాశీలతను కల్గి ఉంటాయి. కాని ఆల్కహాల్ ను తరచుగా మారుస్తూ ఉండాలి. తాజా పిట్యూటరీ గ్రంథులను సేకరించి 100% అసిటోన్ ద్రావణంలో భద్రపరచుకోవాలి. అవి 6 నెలల నుండి 12 సం॥ల దాకా క్రియాశీలతను కల్గి ఉంటాయి.



పిట్యూటరీ గ్రంథి సేకరణ విధానము.

S.A.S.J Govt. Degree college (Nrpm)

Zoology mid exam - II

B. Vasavi
Reg No: 21355711 0022

Paper: Immunology and animal - biotechnology

20/20

I Answer any two of the following questions (2x7=14)

1. Innate and adaptive immunity
2. organs of immune system
3. Explain antigens
4. Explain antibodies.

II Answer any two of the following questions 2x3=6

5. vaccines
6. B and T cells
7. Hyper sensitivity
8. MHC

Answers

I Que No 1

Ans: Immunity:

⟹ Immunology is a branch of biology that deals with the immune system.

⟹ The born or acquired resistance of living organism to infection of microorganism

⟹ our body has developed a defence mechanism in the form of immune system

Immunity not only refers to the elemination
microbes by antibodies
(2) They "recognition memory" and "specificity
are the fundamental feature of immune respons
se or immunity
(3) Branch of biology the deals with immunity or
the study of immune systems is called immunolo
-gy about 2500 years back
(4) The concept of immunity was introduced when
first "Dr. Edward Jenner"
→ A century later louis Pasteur applied
scientific approach by performing
⇒ In 1893, "Bochner" identified a serum
factor
⇒ which was a bacterial, In 1908, Emil-metchi
-nickoff" shared a Nobel Prize with
"Ehrlich"
⇒ "Zinsser" (1925) Provided the distinction betwee
harmoral and cellular hypersensitivity reaction
→ The bedside hay been attributed to be disc
-r of "leucocytes"
→ Non-self antigens that can trigger an im
-ne response include viruses, fungi, bacteria
⇒ Parasites, tumors, transplated solid organ
and Stem cells
⇒ The addition any disease, systemic lupus
-told arthri

Antigens

→ The molecular substances such as polysaccharides proteins, Lipoproteins nucleoproteins, nucleic acids etc

→ Immune response are called "antigens" they can be recognized by B- cells or T- cells

Structure of an antigen

→ The antigen has a binding site called epitope or antigenic determinant.

→ An antigen has many epitopes.

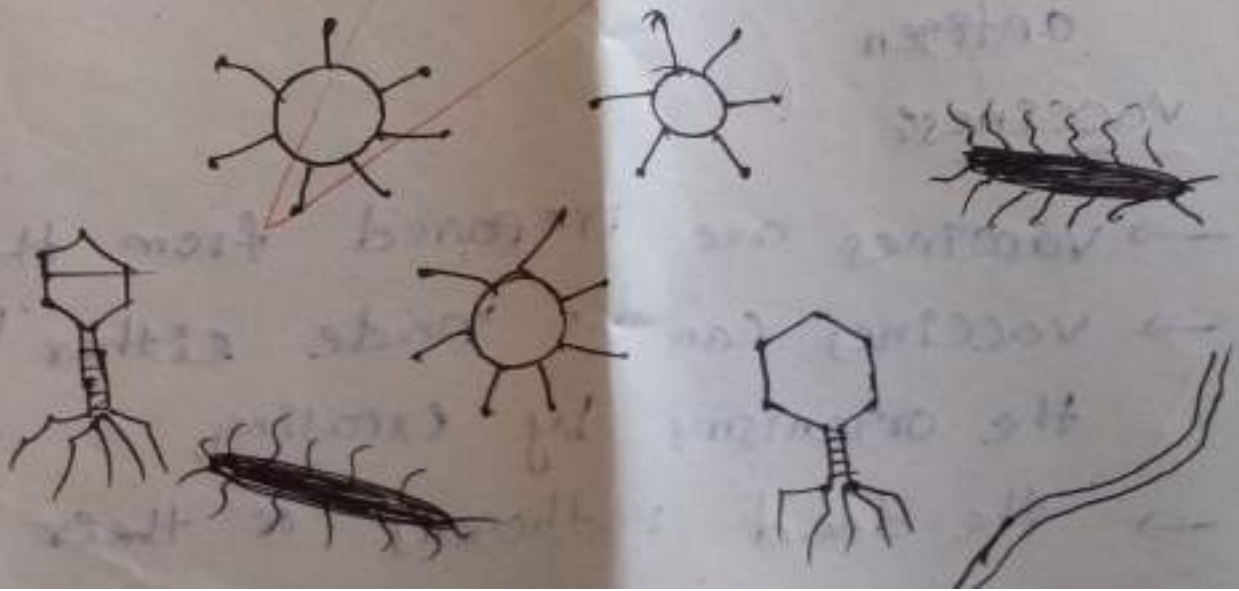
→ An antigen with many epitopes is called a multivalent Antigen

→ The epitopes is an antigen may be of different types.

→ the "valancy" and antigen

→ Some epitopes are 'hidden' in the antigen these are called hidden epitopes

→ the epitope is made of 6 to 8 amino acids. and protein 6 to 8 Glucose-units a Poly saccharide antigen



Class I & MHC molecule

→ They are found on the surface of almost all nucleated cells of the body.

Class II & MHC molecules

→ they are found only on the surface of APC's

In addition to class - I molecules

Properties of Antigens:

→ Acting on the functional significance three types of Antigens they are

1. Auto Antigens
2. Allogenic antegens
3. Heterophil antigen

Q.No (5) Ans

vaccines

vaccination: Establishing acquired immunity through artificial methods against.

→ A specific disease is called vaccination

→ During the process live and attenuated or dead organisms and human blood ag antigen

vaccines:

→ vaccines are prepared from the Pathogens

→ vaccines can be made either by attenuate the organisms by erasing.

→ the dead Pathogens or their toxids.

MHC's

function of MHC's

⇒ MHC molecule are loaded with a bit of sample peptide fragment
→ MHC molecule contain self as well as non-self antigens.
→ Peptides present on the MHC molecule are watched by the T-cells
→ MHC molecule bring about grafft rejecti
→ The bring protection against cancer
→ The mediate certain autonmune diseases

MHCs

→ They are responsible for individual smell of People
→ They are involved in mate selection

S.A.S Govt degree college B.L.Mythili
Narayanapuram.

Zoology Internal examination - I R.NO:- 19.

I. Any two of the following

1. Process of digestion and assimilation.
2. Rapiration - Transport of O_2 and CO_2
3. Structure and functions of Heart
4. Structure and functions of kindney.

19
20

II Answer any two of the following

5. Carbohydrate digestion
6. Cardiac cycle
7. Nerve impulse transmission
8. Muscle contraction.

Answers:

(1) Digestion :- Digestion is the process of conversion of complex insoluble, non-diffusable food substances into water-soluble simple diffusable forms

Process of digestion :-

→ Buccal cavity performs two major functions mastication and swallowing of food.

→ Teeth and tongue with the help of saliva masticate and mixup the food thoroughly.

→ lysozyme present in saliva acts as a antibacterial agent that prevents infections

Starch —Salivary Amylase→ Maltose

Pg 6.8

Digestion in the stomach :-

→ the stomach store food for 2-4 hours

→ the food is mixed with the gastric juice of the stomach by the movements of its muscular wall and is called chyme.

Protein (inactive) —HCl→ Rennin (active)

Pepsinogen (inactive) —HCl→ pepsin (active)

Casein —Rennin / Ca^{++}→ calcium paracaseinate

Digestion in the small intestine :-

→ Various types of movements are generated by the muscularis externa layer of the small intestine

→ All the enzymes of that pancreatic juice and Succus entericus act only in alkaline medium.

Pancreatic juice :-

→ the pancreas is a glandular organ lying close to the duodenum.

→ the hormone pancreozymine controls the enzyme producing function of the

Bile juice :—

→ Bile juice is produced by liver, although bile alone has no digestive action.

→ Bile is produced continuously by the liver, but the amount varies with of the diet.

2Q Respiratory system of man includes the following

External nostrils — A pair of external nostrils opens out above the upper lip.

Nasal chambers :— They lire above the palate and are seperated from each other by a nasal septum

2Q Structure of kidney :—

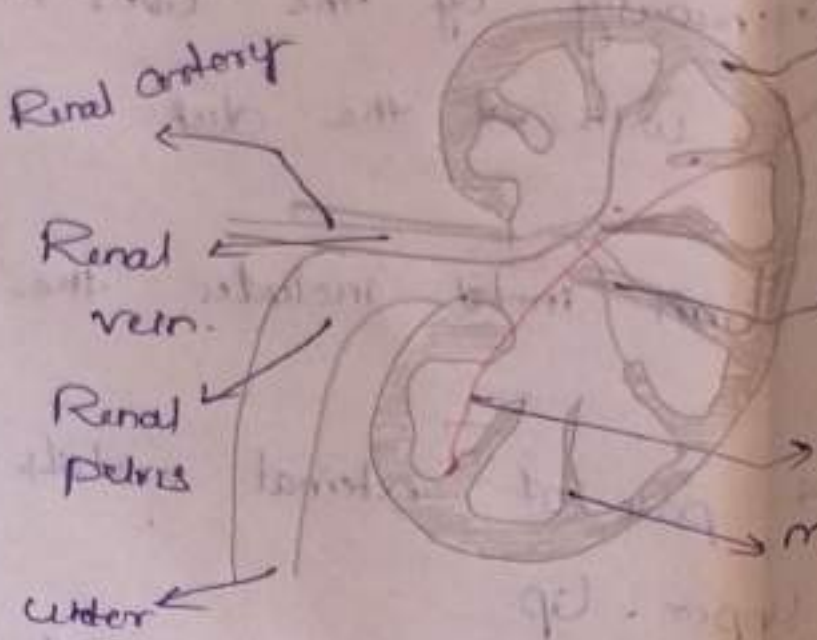
→ the kadneys are two reddish - brown bean shaped organs found in vertebrates.

→ they are located on the left and right in the retroperitoneal.

→ the kidneys receive blood from the renal arteries, left and right which branch directly from the ~~aol~~ abdominal aorta.

→ Blood drains from the kidneys, ultimately into the inferior vena cava.

→ After filtration occurs the blood moves to small veins or venules which converge into interlobule veins.



Anatomy of kidney

→ the nephron processes the blood supplied to it via filtration, reabsorption, secretion and excretion.

→ these include the nitrogenous wastes urea, from protein catabolism, and uric acid, from nucleic acid metabolism.

→ Examples of substances reabsorbed are solute-free water, sodium, bicarbonate, glucose and amino acids.

formation
1. Filtrat
→ filtr
-de
protei

Formation of urine :- three main parts

1. Filtration :-

→ filtration, which takes place at the renal corpuscle, is the process by which cells and large proteins are retained while materials of smaller molecular weights are filtered from the blood Volume that enters the kidneys as filtered.

Reabsorption :-

→ Reabsorption : the transport of molecule from this ultra filtrate and into the peritubular capillary

Secretion :-

→ Secretion is the reverse of reabsorption

Excretion :-

→ the last step in the processing of the ultrafiltrate is excretion

→ In addition of transporting the ultra filtrate, the collecting duct also take part in reabsorption

⑦ Cardiac cycle :-

Cardiac cycle

Auricles & simultaneously Contract. ← contraction of S.A node ← Initiation of atrial systole ← Blood enters Auricles ← Ventricles relax ← Closer semilunar heart beat (Dub) ← Ventricular Systole ← Semilunar valves open ← Production of heart beat Sound (lub) ← Closer of Bicuspid and tricuspid valves ← Ventricular systole ← A.V node activate and auricles relax

8. Nerve impulse transmission :-

→ the physico, chemical activity occuring in the nerve during the transmission.

→ A wave of activity constitute nerve impulse

→ Nerve impulse is the message carried along a neutron

→ So it is now known that the impulse is an electrochemical phenomenon.

S.A.S Degree College

M&D EXAM - 8

Zoology

K. Devi
Roll No:

13
15
28

1) Enumerate general characters of Amphibia with examples

2) Compare the difference between Protothesia Metathesia and Eutheria.

Answers

1) General characters of Amphibia :

* First tetrapods to invade land. live both in waters and on land. cold blooded or Poikilothermic animals.

* Body divisible into head and trunk Neck may or may not be present. Two Pairs of Pentadactyle limbs are Present.

* Skin Smooth, moist and glandular, scales if Present are embeded in the skin.

* Respiration is carried out by skin, buccal Cavity and lungs. Gills are seen in Larval Stage, may be seen some aquatic adults also.

* Heard with two auricles and one ventricle hence three chambered. Sinus venosus and truncus arteriosus Present. R.B.Cs are biconvex or oval and nucleated.
* Mesonephric kidneys are Present, excretory Product urea.
* 10 Pairs of Cranial nerves are present.
eyes with eyelids a tympanum is Present.
* Sexes are separate in some copulatroy organ is seen in males.
* Cloaca is a common opening for digestive excretory and reproductive systems.
fertilization is usually external.
* Larval stage is called "Tadpole" is seen in life history
* Skeleton bony and skull is dicondylic eg: Rana, Ichtayophis, Siren.

Prototheria	Metatheria	Eutheria
1) Primitive mammals. They lay eggs. adults did not take care, but parental care is present	Viviparous mammals. They deliver immature youngones and these breast fed until they are well developed	Viviparous mammals. They give birth to well developed young ones.
2) No external ears. Tail is short, but Bead is reduced in size. Cloaca present.	external ears present. Tail is long and coiled. Cloaca absent.	External ears are well developed. Tail structure varies in different animals. Cloaca absent.
3) Teeth present in the young stage.	Teeth present in adults. they are monophyodont	Teeth are diphyodont and heterodont.
4) Body temperature ranges from 25°C to 28°C	Body temperature varies from 32° to 36°C.	Body temperature is 35°C to 40°C.
5) Inner ear has small cochlea. No tympanum	Cochlea is well developed with coiling. Tympanum is developed	Cochlea is well developed and Tympanum is developed aroud
6) Testes are situated inside the abdomen. No Penis	Testes are situated outside the abdomen. Penis is present.	Testes are situated out side the abdomen. Penis is well

7) No Placenta formation: eggs are large with Yolk and Covered with a shell.	No true Placenta But Yolk sac placenta develops between mother and embryo eggs small. Corpus Callosum absent	True Amnioallantoic placenta develops between mother and foetus. egg microscopic no yolk and shell.
8) Two epipubic bones are Present in the Pelvic girdle	Generally two epipubic bones are present in the Pelvic girdle.	only an individual of epipubic bones is present.
9) Pre and metacoracoids reach the sternum. A strong Presternum is present.	EP: coracoids are Present as a small Process of the scapula. Jugal bone is present.	ep: coracoids are found as small Processess of the scapula.

MID EXAM

ZOOLOGY - [4B]

A. Gayathri,
IInd B.Sc [C.B.Z]
Roll no: 01

5. Mabs: monoclonal antibodies (mabs) can be produced in specialized cells through a technique now popularly known as hybridoma technology.

* An antibody producing lymphocyte cell.
⇒ A single myeloma cell (tone narrow tumor cells which is capable.

⇒ following steps are involved in the production of monoclonal antibodies using hybridoma technology.

⇒ HGPRT - That cannot synthesize the enzyme Hypoxanthine guanine phosphoribosyl transfore

⇒ culture selected hybridoma cells for the production of monoclonal antibodies in large quantity.

Alternatives to hybridoma technology for mAb;-

⇒ In recent years techniques have developed, which allow production of mAb without hybridomas.

⇒ for instance, antibody genes can be isolated from lymphocytes.

⇒ Thus while mAb technology can immortalizes antibody producing genes.

⇒ computer graphic techniques are also used build

Application of monoclonal antibodies

They are useful in the following cases.

⇒ In diagnosis of ABO and blood groups cancer pregnecy, allergies, viral diseases and certain hormone

⇒ Immuno purification of interferons from a mixture of substance.

⇒ Treatment of diseases, for example tumour.

⇒ It organ transplation.

⇒ when other methods and surgery get failed to diagonise cancer at very Important places.

⇒ Use MAb is suggested MAb are labelled with Radioactive.

⇒ chemical such as ^{125}I and cancer patients are injected with these.

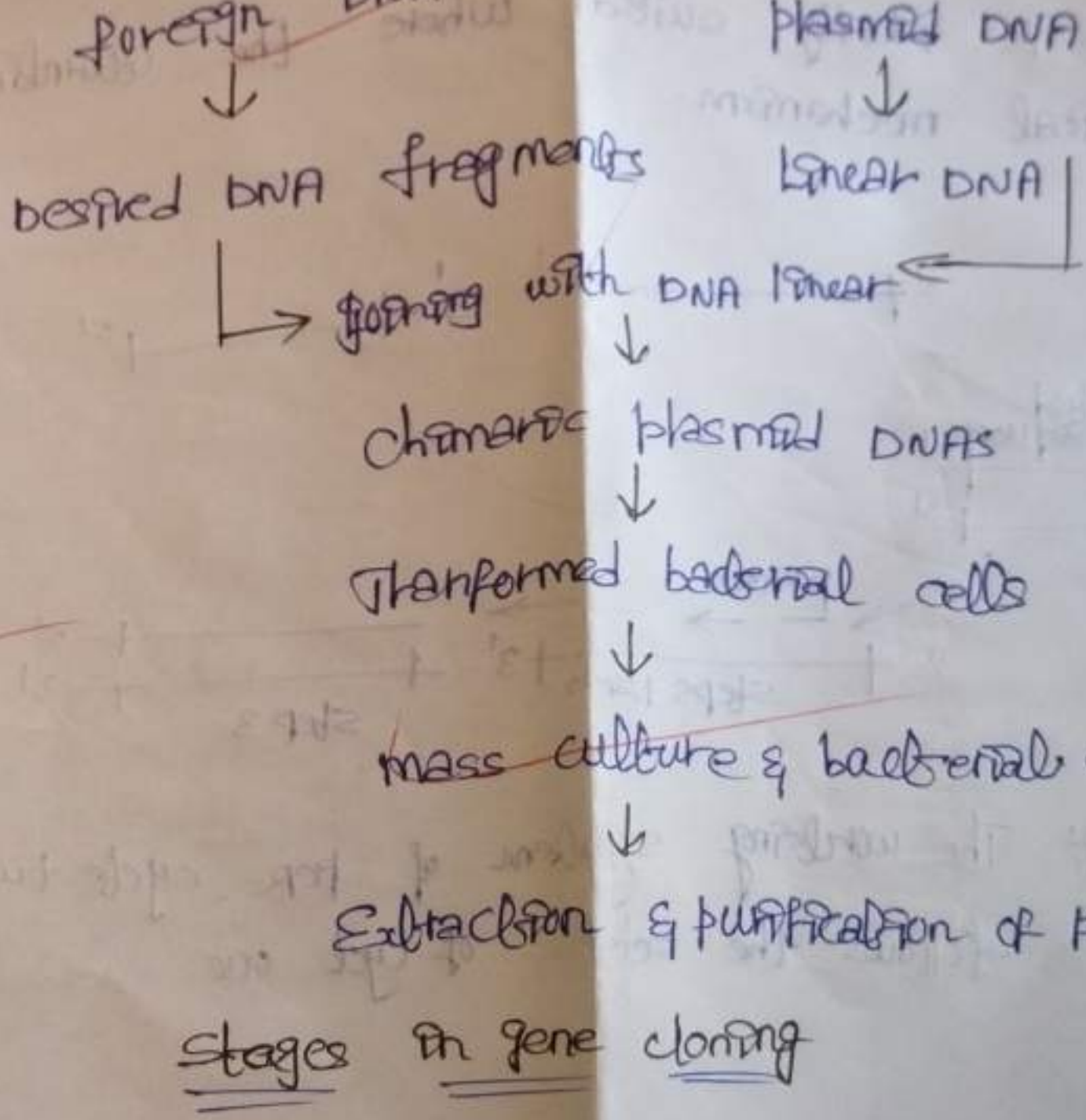
⇒ One of the successful used methods is the coupling of MAb with RIGN.

⇒ It is found very successful in clearing the bone marrow of leukemic cells.

vector: A vector is a DNA molecule in which foreign piece of DNA can be inserted without losing the ability of self replication. A vector may be a plasmid, cosmid, a virus.

⇒ An ideal vector should be small in size.

⇒ **cloning vectors:** cloning vectors are used for obtaining million of copies of cloned DNA



Stages in gene cloning

3 Ans PCR :- Means Polymerase Chain Reaction! The PCR is Required to amplify the gene or protein of a fragment of geonomic DNA of desired. length

⇒ The Polymerase chain reaction (PCR) provides a simple and ingenious method for exponentially.

⇒ Technique has made it by kary mullis of califlorna in 1985.

⇒ This Technique has made it possible to synthesize large quantities.

⇒ It is ideally suited where the quantity of biological mechanism.

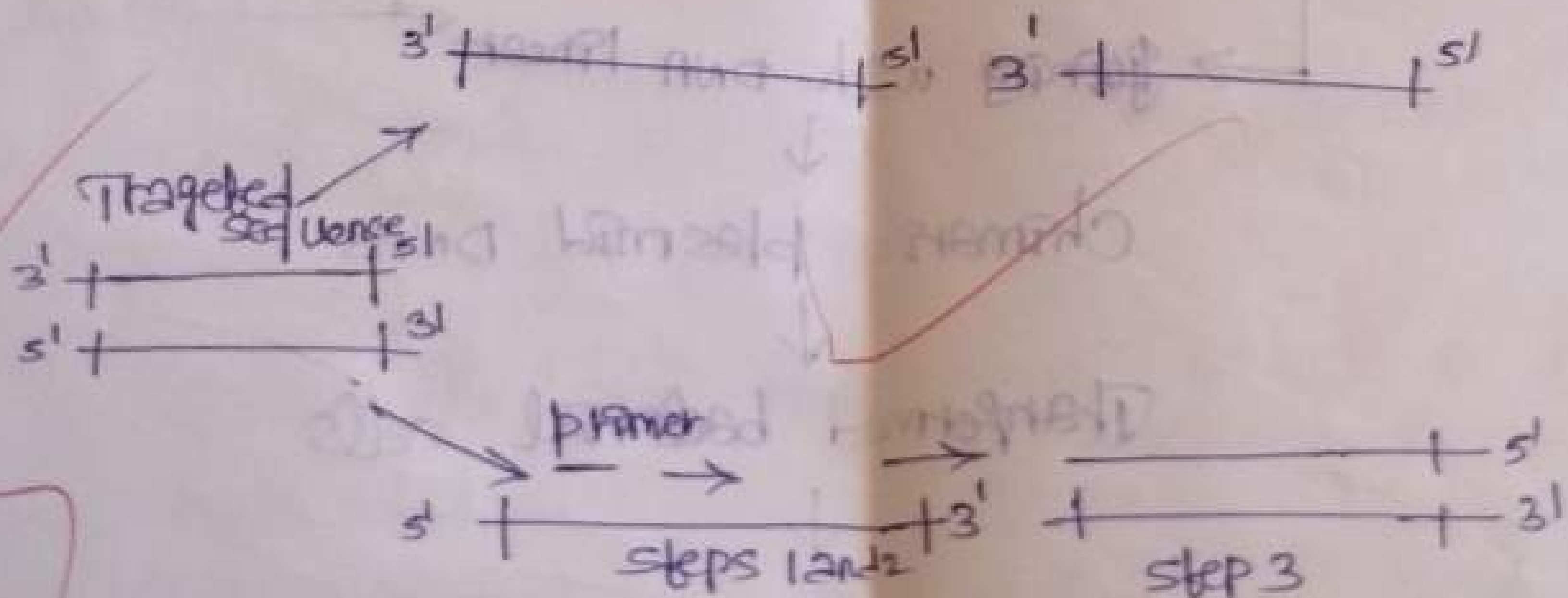
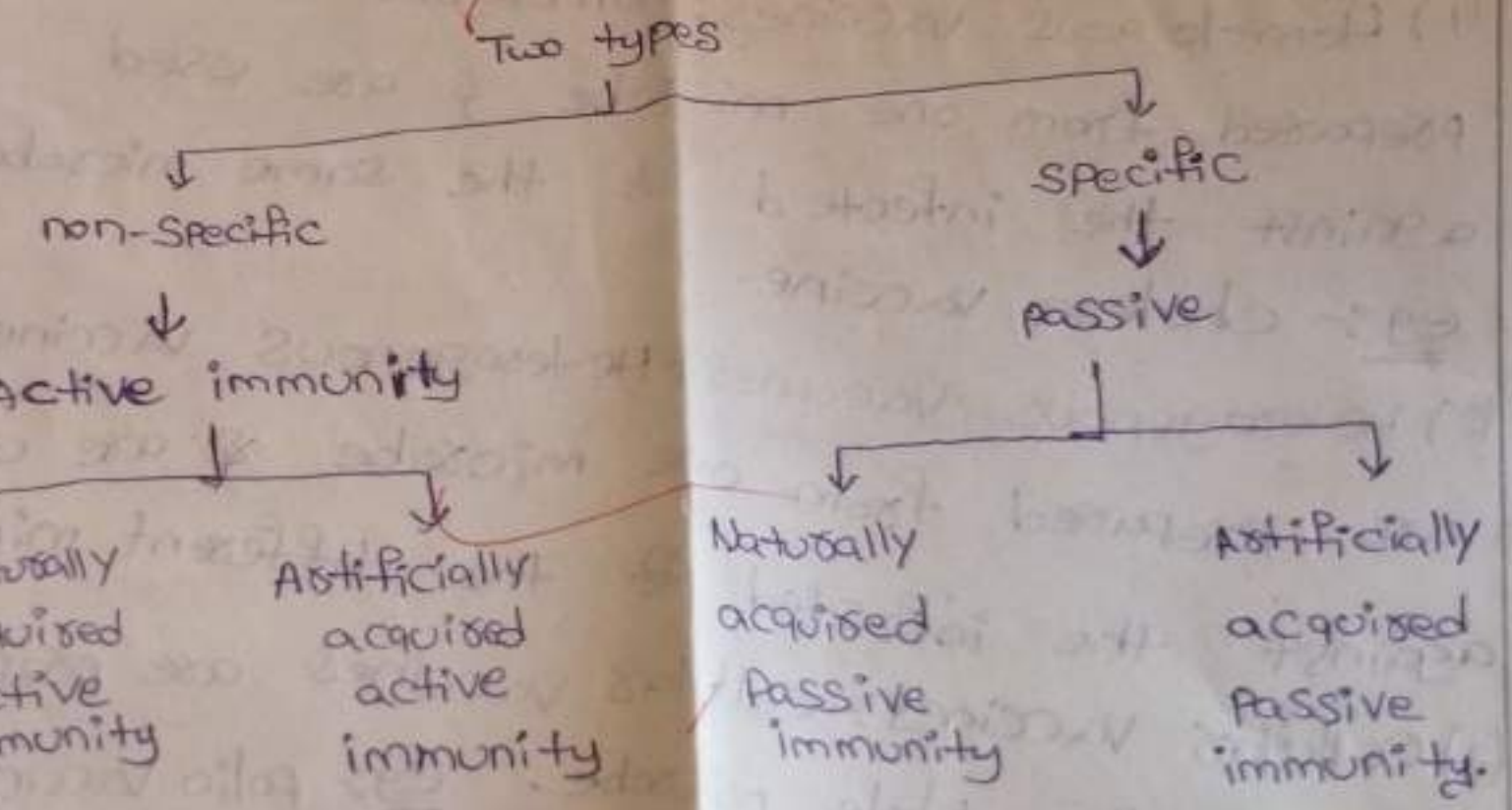


fig :- The working system of PCR. cycle two follows the steps of cycl one.

Name: D. Devi Sri Bala
II nd B.Z.C
Roll No :- 08
Zoology (4b).

20/25

(1A) Immunity is the capcity of the immunology of a process to the from of a immunity to a non-specific and the specific. these are two types of immunity. It is a specific and non-specific types. and the specific immunity. the capcity of a immunity to a process of the capcity.



In the non-specific type of Active immunity is in the two types Naturally acquired active immunity and Artificially acquired active immunity. and In the specific the passive is a Naturally acquired passive immunity and Artificially acquired passive immunity. thus, the immunity is the capcity in the non-specific and the specific.

(9A) Vaccination :- Despite the formidable defence the immune system, some pathogens manage to establish themselves in the host.

types of Vaccination:- Vaccine is an antigenic preparation of microorganism such as bacteria viruses, administered for prevention treatment of infectious diseases.

(1) Homologous Vaccines:- Homologous Vaccines are prepared from one microbe & are used against the infected of the same microbe.
eg:- cholera vaccine.

(2) Heterogenous Vaccines:- Heterogenous Vaccines are prepared from one microbe & are used against the infected of the different microbe.

(3) Cellular Vaccines:- Cellular vaccines are prepared from ~~one~~ the whole microbe. eg:- polio vaccine.

(4) Sub-cellular Vaccines:- they are prepared from the toxins of and chemical microbes.

(5) Attenuated of the Vaccines :- they are or live vaccines are pared from live microbes by attenuate them.

(6) Inactivated Vaccines:- these vaccines are parpared out of killed microbes.

Name :- D. Devi Sri Bala

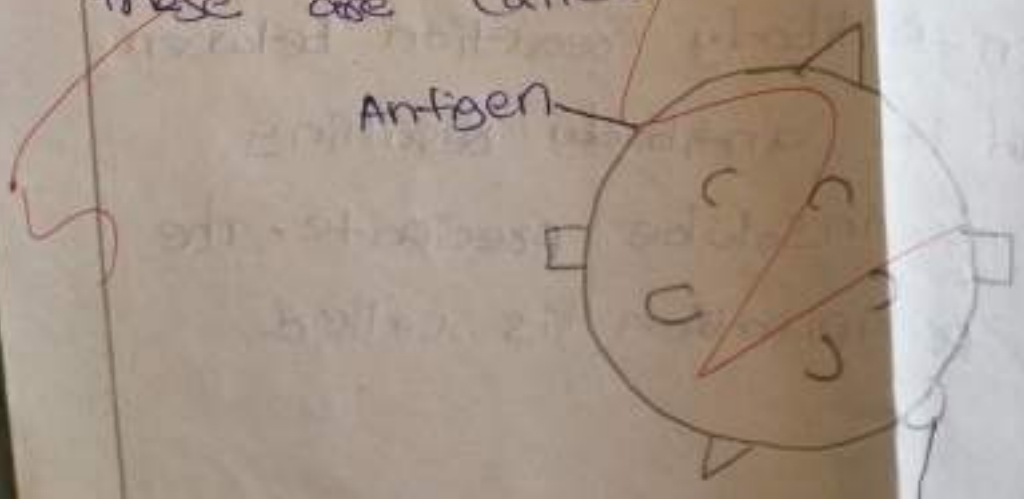
II nd B.Z.C.

Roll No :- 8

Zoology (4b)

Antigens :- the molecular substances, such as polysaccharides, proteins. etc that can induce a detactable immune response are called Antigens.

* the Antigens has a binding site called epitope.
* the antigen binds the antibody.
* the binding site of the antibody of a called paratope.
* An antigen with many epitopes is called a mutivalent antigen.
* the epitopes in an antigen may be of different types.
* Some epitopes are hidden in the antigens. these are called hidden epitopes.



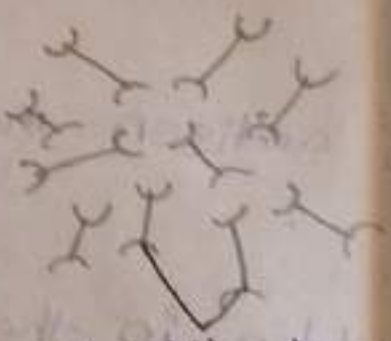
(4) Immunoglobulines:- the main function of a immunoglobulins is to protect the body against the invading microorganism. The protective role a carried out in two different ways.

(1) Direct attack of immunoglobulins on the pathogens.

(2) Activation of the complement system.

(1) Direct attack:- the antibodies inactivates the antigens in any of the following way

(1) Agglutination (2) precipitation, (3) Neutralization (4) Lysis (5) opsonization, (6) Tissue fixation, (7) selective transport.



Antibodies

(2) precipitation:- precipitation is due to the formation of antigen-antibody reaction between Solube antigen and its antibody resulting in the formation of insolube precipate. The antibody causing precipitation is called precipitation.

Mid Exam-II

Zoology - 4A

Ch. Alekhya
2nd B.Sc
Roll No: 7

12/15

1. What are Carbohydrates ? classify them.
2. Glycogen Metabolism.
3. Spermatogenesis.

Answers

1A:- Carbohydrates:-

The essential process in the biosphere. The portion of earth in which life can occur, that has permitted the evolution of life as it now exist the Conversion by green plants of Carbon dioxide from the atmosphere into Carbohydrates.

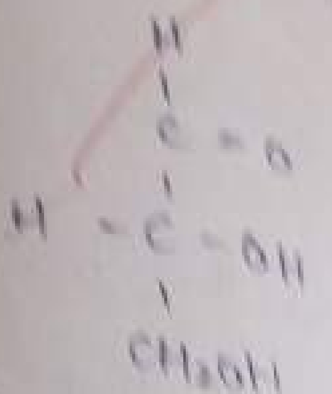
Carbohydrates serve as main source of Energy for all living organisms Substances like Sugar & Starch are some of best ss Example for Carbohydrates.

Classification:-

1. Monosaccharides:-

These are called simple sugar monosaccharides are those which Cannot be hydrolysed further into simple form.

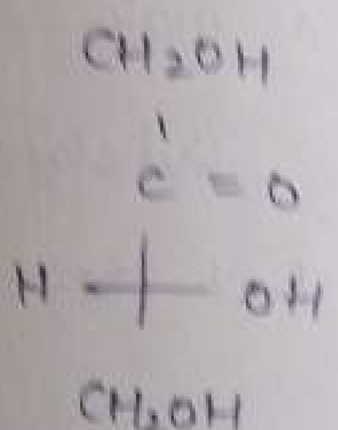
(a) Aldoses: They posses an aldehyde functional group.
(b) Ketoses: They posses a ketone functional group.
(a) Bioses: The formula of bioses is $C_2H_4O_2$
They contain two. Eg: Glycolaldehyde
(b) Trioses:- The formula is trioses is $C_3H_6O_3$. They contain three carbon atom in chain



D- Glyceraldehyde.

Tetroses:- The formula of tetroses in $C_4H_8O_4$. They contain 4 carbon atom in chain

Eg: Erythrose



Pentoses:- The formula of pentoses is $C_5H_{10}O_5$. They contain 5 carbon atom in chain.

Eg: D- Ribose

Hexoses :- The formula of [illegible]oses is $C_6H_{12}O_6$

Eg: D-glucose.

Heptoses :- They contain seven Carbon atoms in chain molecula

formula $C_7H_{14}O_7$.

II. Disaccharides :-

They are formed by the union of two monosaccharides. They are united by linkage between the first Carbon of one monosaccharide.

III. oligosaccharides :-

These are formed by the union 3-10 monosachride unit Per molecule.

IV. Poly saccharides :-

Polysaccharides represent most of the structural and energy reserve Carbohydrates found in nature large molecule. That may Consist of as many as 10,000 monosaccharides units linked togelher.

2A :- Glycogen :-

Glycogen is a branched Polymer and storage from at Carbohydrates in the human body major sites of storage are the liver & skeletal muscles.

(ii) Structure :-

Glycogen is an extensively branched polymers of alpha d glucose, it

(iii) functions :-

The storage form of glucose. utilized when bload glucose level drops.

(iv) Storage :-

The major sites of storage of glycogen are sketelal muscle and the live. The total quantity of muscle glycogen is more than liver glycogen due to larger muscle mass.

(v) Metabolic Pathways :-

There are two metabolic pathways of glycogen.

(vi) Glycogenesis :-

The synthesis of glycogen storing Excess glucose too future use in liver & muscle cells.

3A :- Spermatogenesis :-

The gametogenesis is the first phase in the Sexual reproduction of animals. The animal which reproduc Sexually contain two cells.

(i) Spermatogenesis (or) Formation of Spermatids :-

The Spermatids are produced from the diploid cells at male germinal cells of Testis. Called Spermatogenesis

(a) Multiplication (b) Growth (c) Maturation

(a) Multiplication :-

This phase is also known as poliferation phase. During phase diploid spermatogonia.

(b) Growth phase :-

Each primary spermatocyte become enlarged in size

(c) Maturation phase :-

The primary spermatocytes undergo first meiotic.

2. Spermatogenesis of formation of sperms :-

(i) Body of spermatid, become elongated.

(ii) The cytoplasmic gets reduced.

(iii) Centriole divides two.

(iv) The nucleus shrinks and assumes different shapes in different animals.

(v) The acrosome in the anterior region of sperm is formed by the golgi Complex.

(vi) Mitochondria which provide energy are more Concentrate in middle region.

K. Durga Bhavani
I st BZC
R.NO-29

ZOOLOGY
MID EXAM-2

1. Compare the differences between prototheria, metatheria, and Eutheria?

A:-

Prototheria	Metatheria	Eutheria.
1. primitive mammals. They lay eggs. Adults did not take care about the eggs, but parental care is present.	Viviparous mammals. They delievet immature youngones, and keep them in their brood pouch until they are well developed.	viviparous mammals. They give birth to well developed young ones. No brood pouch, mothes takes care of their youngs.
2. NO external ears. Tail is short, but broad and is reduced in size. Cloaca present.	External ears present. Tail is long and coiled. cloaca absent anal and urinogenital openings are surrounded by sphincter muscle.	External ears are well developed. Tail structure varies in different animals.
3. Teeth present in the young, do not present in adults.	Teeth present in adults, they are monophydont.	Teeth are diphyodont and heterodont.
4. Body temperature ranges from 25°c to 28°c.	Body temperature varies from 32°c to 36°c.	Body temperature varies from 35° to 40°c.
5. Inner ear has small cochlea. No tympanum.	Cochlea is well developed coith coiling.	Cochlea is well developed and is more coiled.
6. Testes are situated inside the abdomen. No penis.	Testes are situated outside the abdomen. penis present.	Testes are situated out side the abdomen.

7. No plaanta formation. Eggs large with yolk and covered with a shell. Clebage meso. blastic. mammary glands do not have teats. Capus Callosum is either small or absent.	No true placenta. But yolk sac placenta develops between mother and embryo, egg small. No yolk, no shell. Cleavage holoblastic. Mammary glands are present in brood pouch. Corpus Callosum absent	placenta between ... a foetus, eggs ...scopic, no ... shell. Cleavage ...blastic. Mammary glands are ... and have teats. Corpous Callosum p...
8. Two epipubic bones are present in the pelvic girdle.	Generally two epipubic bones are present in the pelvic girdle.	Only an indication of epipubic bones is present.
9. Pre and metacoracoids reach the sternum. A strong presternum is present. 'T' shaped inter Calvicale present. No Jugal bone.	Epicoracoids are present as a small process of the scapula. Indications of metacoracoid are present. Interclavicle absent. Jugal bone present.	Epicoracoids are found as small processes of the scapula. Indication of the metacoracoid are also present

2. Explain the respiratory organs of pigeon and add a note o... mechanism of respiration?

A: The respiratory system in birds is very characterstic an... exhibit several unusual structural modifications.

Slit like external nares or nostrils are situated on the upper jaw or beak. The mouth cavity is continued p...riorly to the pharynx, which is a part where both respira... and digestive organs come together. The larynx is the dilat... part of the trachea into which the glottis opens. The laryn... is partly covered ...

Respiratory system:- Ex
cavity by the internal nostrils. Glottis is situated at the
floor of the tongue. It leads into the larynx. The wall of
the larynx is supported by cricoid and arytenoid cartilages.
Each bronchus is supported by incomplete bony rings.
A syrinx or vocal organ is present at the junction of
trachea and paired bronchi.

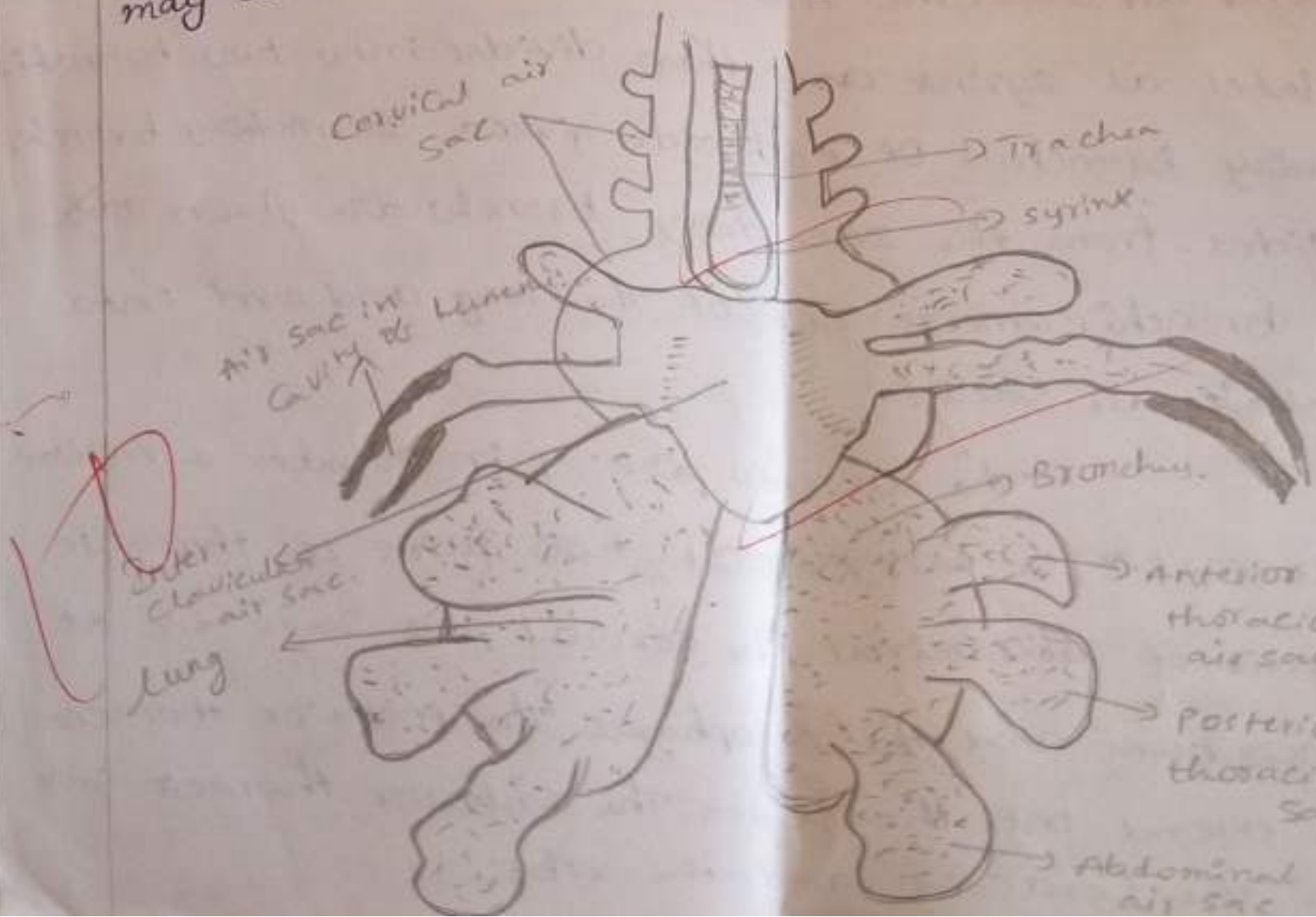
Lungs:- They are solid and spongy organs. They are reddish
in colour and very small in size as compared to the
size of the animal. They have no covering of peritoneum.
Each bronchus enters the lung of its side and runs upto
the posterior end of the lung as mesobronchous.

Air sacs:- The respiratory system of pigeon consists of
lungs and air sacs. The trachea when enters the thoracic
cavity dilates at syrinx and then divides into two bronchi.
The primary bronchus of each side gives a secondary bronchi
to all sides. From the secondary bronchi are given off
tertiary bronchi. emerge out of the lung and end into
thin walled air sacs.

The air sacs are 9 in number a median
inter-clavicular, a pair cervical, two pairs of thoracic
and a pair of abdominal. The cervical air sacs lie at
the pericardium and the oesophagus. The posterior thoracic

Mechanism of respiration :- In the resting bird, the sternum is moved up and down by the contraction and relaxation of abdominal and intercostal muscles. As the sternum is moved up the elastic ribs come close together, lungs is forced out. But the body cavity is elevated and depressed by the action of wings and by the lowering of back-bone.

Double respiration :- During inspiration, fresh air is sucked into the respiratory system, passing partly into the air sacs directly from the mesobranchus and partly into the air capillaries in the lungs where gaseous exchange takes place. In expiration deoxygenated air from the lungs is forced. Thus the air sacs permit double respiration. This is also known as double respiration. The air sacs filled with warm air may also help in regulating the body temperature.



ZOOLOGY

MID EXAM - 1

K. Geeta Satya Manga veni

(20) 1st B.Z.C.

Roll No : 28

1) what is a chordata and describe the general characters of phylum chordata.

Ans Any member of the phylum chordata is a chordate. As Per the classification of kingdom Animalia, Phylum Cho-rdata comes under sub-kingdom Eumatazoa.

General characters of Phylum chordata: Fundamental chordata features are

A longitudinal supporting rod-like notochord or chorda dorsalis.

A dorsal hollow or tubular nerve cord

A series of pharyngeal gill slits

A Post anal tail and the other characters are-

Bilateral symmetry and triploblastic nature, cephalization metamerism, ceolom, alimentary canal, Heart and blood vascular system, Respiratory system and Excretory organs, reproductive system.

10

1) Notochord :- this structure is found in all the chordates, as a chief supporting structure in the embryonic condition. It is a long flexible cord containing specialized cells. it lies between the alimentary canal and the dorsal nerve cord. with few exceptions in all the Prochordates, it remains in the adult condition, while in all the vertibrates it is replaced by a bony or cartilagenous vertibrates column.

T.S. of notochord of a chordate

four main characteristics of a chordate.

(1) A dorsal hollow or tubular nerve cord:- The central nerv system in chordates lies in the dorsal part of the body hollow tubular cord. The nerves arise from the dorsal and tral nerve roots of spinal cord and brain.

(3) A series of pharyngeal gill slits:- In all chordates, at some stage of their life history a series of gill slits or gill c perforate through the pharygeal wall of the gut behind the

(4) Post Anal tail:- It is an extension of the body beyond anus. It is absent in some adult chordates.

chordates posses some characters which are also s bited by invertibrates they are

1. Bilateral symmetry:- Due to the presence of longitudinal an

K. heela Satya ranga veni
1st B.Z.C.
Roll No: 28.

Each other

ii) Triploblastic nature:- All the body structures are formed by three germinal layers namely ectoderm, Endoderm and mesoderm.

iii) Cephalization:- chordates show strong tendency towards cepha lization. are found in all chordates

iv) metamerism:- metamerism means the regular reptition of certain organs along the antero - posterior axis.

Eg:- arrangement of trunk muscles, Paired nerves, ribs and verte brae.

v) coelom:- In all the higher chordates, the body cavity is formed by Enterocoelic method.

g) Alimentary canal:- In these animals the blastophore transforms into anus, mouth develop afresh.

(h) Heart:- Heart is ventral in position. Blood flows in closed vess els such as arteries, veins and capillaries.

(i) Respiratory and excretory organs:- in vertibrates gills or lungs act as respiratory organs.

(j) Reproductivity organs:- In all the vertebrates excretory organs are ~~usually~~ intimately associated with reproductive organs forming a common urinogenital system. Vertebrates are unisexual and bear a single Pair of gonads

2) Enumerate the differences between Petromy
lamprey (Petromyzon):-

1) Found in rivers as well as in sea, grows upto 1 meter lo
on fishes and turtles External parasite: feed on fish blo
2) one or two median dorsal fins and caudal fin present
3) Typholosole and spiral valve in the intestine
4) Kidneys, are compact, mesonephric
5) A urinogential sinus and two genital pores are present

Hag fish (myxine):-

1) Caudal fin is present, dorsal fin single or absent
2) sensory tentacles 3-4 pairs present. No lips. 4 pairs of teeth - present on tongue, orgal funnel not present
3) longitudinal ridges are found in the intestine.
4) Kidneys are separated Pronephric and mesonephric.
5) urinogential sinus is absent only one genital pore is presen

Describe the digestive system of scoliodon (shark).

The digestive system includes the alimentary canal through which the food passes and the digestive glands which open into it.

Alimentary Canal:- Alimentary canal begins on ventral side of the head. It is bounded begins with mouth and terminates in anus. It is longer than the body and includes bucal cavity, Pharynx, oesophagus, stomach.

mouth:- it is a wide crecentic opening on ventral side of the head. It is bounded by folds of integument, also called upper and lower lips.

K. heela Satya ranga veni
1st B.Z.C.
Roll.no: 28

Buccal cavity:- mouth opens into a spacious dorsoventrally flattend, buccal cavity lined by mucous membrane and bordered by the jaws. Teeth are embeded in the skin of jaws they are similar in shape. Teeth serve to grasp the prey. which is usevally shallowed as whole

Pharynx:- Posteriorly the buccal cavity merges with the larger cavity pharynx, lined by Endoderm. Each lateral side of pharynx contains an oval pit of spiracle and five sepe rate vertical internal gill-slits of gill Pouches. mucous lining of pharyngeal wall contains numerous dermal denticle

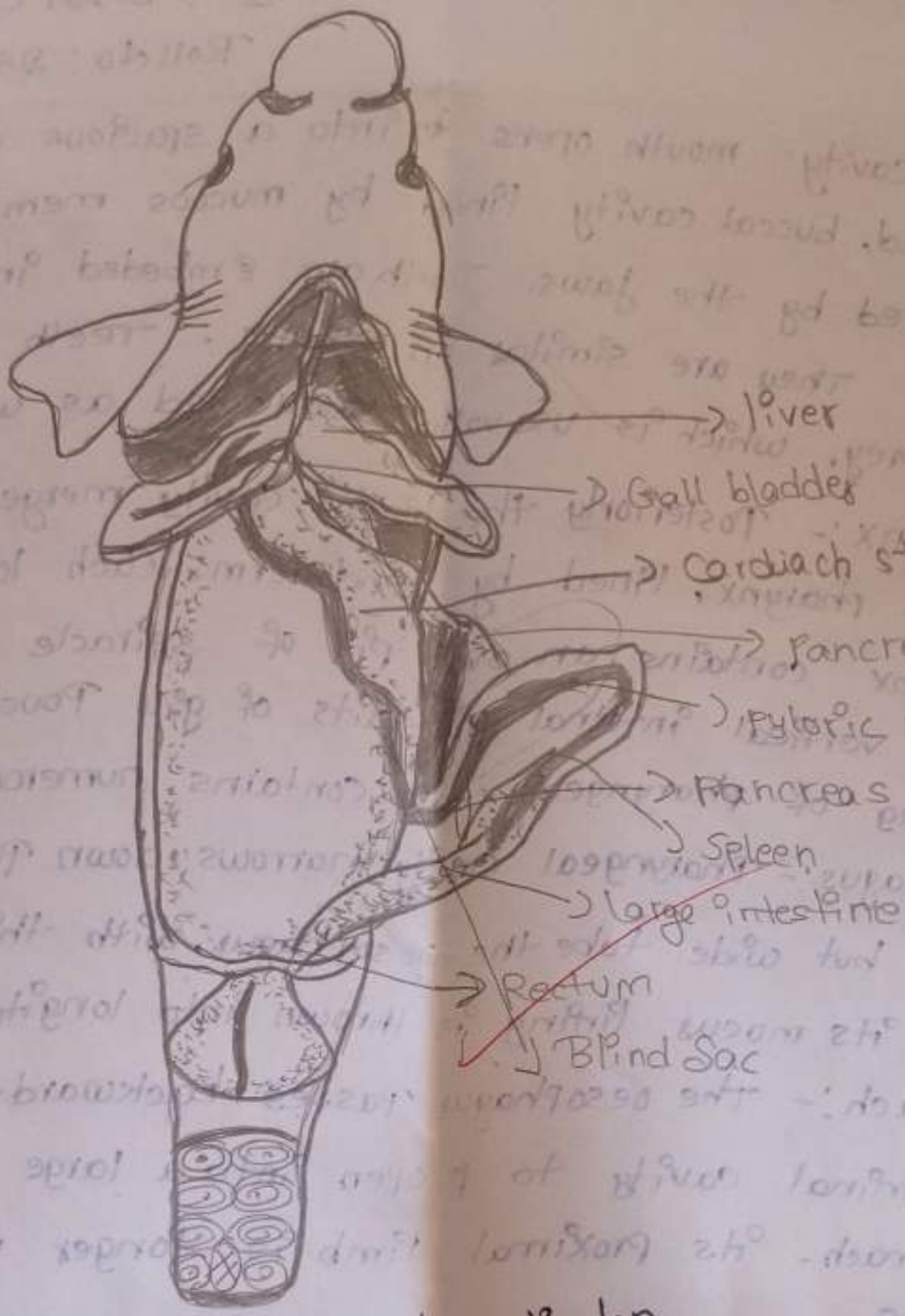
oesophagus:- Pharyngeal cavity narrows down Posteriorly into a short but wide tube the oesophagus, with thick muscular wall. its mucus lining is thrown into longitudinal folds

stomach:- the oesophagus Passes backwards into the abdominal cavity to open into a large muscular, Ushaped stomach. its proximal limb is longer wider and distensible.

→ It is called the cardiac stomach.

→ the distal limb is short and narrow and called the pyloric stomach.

→ At the junction of cardiac and pyloric stomach is present a small blind out growth. the blind sac, as well as a sphincter valve guarding its opening into a small but thick-walled muscular chamber the bursa entiara.



Digestive System of Scoliodon.

15/20

Srikanth Kumar
2nd B.com
Roll No: 1
Sem - IV
Subject - GST

What are the advantages of GST?

GST is probably one of the most radical Economic Reforms India has been. Although GST comes into existence vide a change in the constitutional Amendment, It seeks to untangle the indirect Tax system that is currently burdening the Indian Public...

1. For business and industry:-

(a). Easy compliance: A robust and Comprehen-sive IT system would be the foundation of the GST regime in India.

(b). Uniformity of tax rates and structures: GST will ensure that indirect tax rates and structures are common across the country, thereby increasing certainty and ease of doing business.

(c). Removal of cascading: A system of seamless tax-credits throughout the value-chain, and across boundaries of states, would ensure that there is minimal cascading of taxes.

(d). Improved competitiveness: Reduction in transaction costs of doing business would eventualy lead to an improved competitiveness for the trade and industry.

(e). E-commerce: Currently certain states pose restriction for goods to be entered into their state vide e-commerce.

2. For central and state Government:

(a). Simple and easy to administer:. Multiple indire -ct taxes at the central and state levels are being replaced by GST.

(b). Better controls on leakage:- GST will result in better tax compliance due to a robust IT infrastructure.

Q. What is Dual GST model?

A. Many countries in the world have a single unified GST system i.e a single tax applicable throughout the country. However, in federal countries like Brazil and canada, a dual GST system is prevalent whereby GST is levied by both the federal and state or provincial governments. In India, a dual GST is proposed whereby a service central goods and services Tax (CGST) and a state Goods and services Tax (SGST) will be levied on the taxable value of every transaction of supply of goods and services.

Benefits of Dual GST:

The Dual GST is expected to be a simple and transparent tax with one or two CGST and SGST rates. The dual GST is expected to result in:

(a). reduction in the number of taxes at the central and state level.

(b). decrease in effective tax rate for many goods.

(c). removal of the current cascading effect of taxes.

(d). reduction of transaction costs of the taxpayers through simplified tax compliance.

(e). increased tax collections due to wider tax base and better compliance.

(5). GST rates ?

(A). In India GST rates for various goods and services is divided into four slabs. They are 5% GST, 12% GST, 18% GST & 28% GST. Table of contents. Highlights of 41st GST Council Meeting. Highlights of 43rd GST Council Meeting.

In India, almost 500+ services and over 1300 products fall under the 4 major GST slabs. These comprise rates of 5%, 12%, 18% and 28%. The GST council periodically revises the items under each slab rate to adjust them according to industry demands and market trends.