

SHRI SWAMI VIVEKANAND SHIKSHAN SANSATHA, KOLHAPUR  
Vivekanand College, Kolhapur (Autonomous)  
Home Assignment -2019-20 (B.Sc.-I) Semester-I

Index

Sr. No.	Title	Page No.
1	Notice	1
2	Attendance	2 - 5
3	Marksheet	6 - 9
4	Sample copy	10 - 25



Date – 18/09/2019

**NOTICE**

All students of B.Sc. I hereby informed that, submit Home Assignment for Continuous Internal Evaluation (CIE) of B.Sc. I Semester I up to 30/09/2019 at Zoology Department (Lab.49). The question for home Assignment is given bellow. Submission is mandatory to all.

**Q. 1. Select correct alternative and rewrite the sentence** **4M**


- 1) Body surface of porifera has numerous spores called.....
- a) Osculum                      b) Ostia                      c) Apopyle                      d) Prosopyle
- 2) Sclerotic plates are present in .....
- a) Reptiles                      b) Aves                      c) Mammals                      d) Amphibians
- 3) Presence of mammary gland is characteristic of class.....
- a) Reptiles                      b) Aves                      c) Amphibians                      d) Mammals
- 4) Metameric segmented body is present in phylum
- a) Arthropoda                      b) Annelida                      c) Echinodermata                      d) Porifera

**Q.2. Long Answer (Attempt any One)** **8M**

- 1) Explain physiological flight adaptation in Birds
- 2) Describe general character of Protista and add a note on phylum Ciliophora

**Q.3. Short Note (Attempt any two)** **8M**

- 1) Explain general character of phylum Echinodermata
- 2) Explain general character of Petromyzon
- 3) Explain general character of phylum Arthropoda

  
**Head,**  
Department of Zoology  
Vivekanand College,  
Kolhapur (Autonomous)

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**Home Assignment -2019-20 (B.Sc.-I) Semester - I**  
**Attendance**

Sr No.	Roll No.	Name of the Student	Attendance
1.	7169	AVADHUT PRADNYA SUNIL	P
2.	7170	AWALE DAYASAGAR RAJENDRA	P
3.	7171	BAGADE ADITYA KUMAR	P
4.	7172	BAGADE APOORVA KUMAR	A
5.	7173	BAGWAN UMRAJIYA SHAKIL	A
6.	7174	BEDEKAR SHREYASI SHARAD	A
7.	7175	BHUSNAR SHANIRAJ DATTATRAY	P
8.	7176	BODAKE TEJASWINI SHAHAJI	A
9.	7177	CHALUCHE PRATAP ARJUN	P
10.	7178	CHALUCHE SWAPNIL ARJUN	P
11.	7179	CHOUGALE SHIVANI VILAS	P
12.	7180	CHOUGALE SUVARNA SHIVAJI	P
13.	7181	CHOUGULE SAPANA ANIL	P
14.	7182	DARVAN KUNAL KUMAR	P
15.	7183	DESAI SHRAWANI SUDHAKAR	P
16.	7184	DESHMUKH HARSHWARDHAN DILIPRAO	P
17.	7185	DOKE SIDDHESHWAR SHIVAJI	P
18.	7186	DSOUZA PRIYA MOTES	P
19.	7187	FAKIR JUVERIYA DASTGIR	P
20.	7188	FALLE NILAM RAMCHANDRA	P
21.	7189	GHARAGE ASHUTOSH KIRAN	A
22.	7190	GHODKE GANESH NANDAKISHOR	P
23.	7191	GHULE POONAM MANIK	P
24.	7192	GODHADE GAJANAN JAYVANT	P
25.	7193	GURAV AMRUTA KRISHNAT	P
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29.	7197	JADHAV MONALI SANTOSH	P
30.	7198	JADHAV PRANOTI PRAKASH	P
31.	7199	JADHAV SHILA THAVARU	A
32.	7200	JAGTAP SHITAL BHARAT	P
33.	7201	KADAM SHRUTKIRTI RANGRAO	A
34.	7202	KALANTRE NEHA NAMDEV	P
35.	7203	KALKUTAKI VISHAL BABASAHEB	P
36.	7204	KAMBLE AMRUTA SURESH	P
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46.	7214	KHANDEKAR RUTUJA NARAYAN	P
47.	7215	KHARASE RUSHIKESH DAYANAND	A
48.	7216	KHARAT AKANKSHA RAJENDRA	P
49.	7217	KHOT SWAPNIL SANJAY	P
50.	7218	KOKATE PRATIK PRALHAD	P
51.	7219	KOLI RUGVEDA VIJAY	A
52.	7220	KUMAR PRAVEEN RANARAM	P
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63.	7231	NALAWADE POONAM PRAKASH	A
64.	7232	NAVALE SUMIT RAJENDRA	P
65.	7233	NIMBALKAR SAMIKSHA RAMCHANDRA	A
66.	7234	OSWAL CHAITALI PRAVIN	A
67.	7235	PARIT SHIVANI TANAJI	P
68.	7236	PATIL ADITI ATUL	P
69.	7237	PATIL DHAIRYASHIL SAGAR	A
70.	7238	PATIL HARSHADA HAMBIRRAO	P
71.	7239	PATIL KIRTI VIJAY	P
72.	7240	PATIL MANASVI SARDAR	P
73.	7241	PATIL RADHIKA NIVAS	A
74.	7242	PATIL RAJVARDHINI JAYSING	P
75.	7243	PATIL SAMRUDHI RAJENDRA	A
76.	7244	PATIL SHIVANI KERABA	A
77.	7245	PATIL SHREYAS EKNATH	A
78.	7246	PATIL SNEHAL MARUTI	P
79.	7247	PATIL SWARAJ SHIVAJI	P
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90.	7258	SAVTEKAR PRIYANKA SHEKHAR	A
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96.	7264	SHINDE ABHISHEK SUNIL	P
97.	7265	SHINDE NAYAN HARISHCHANDRA	A
98.	7266	SHINDE TEJASVINEE SUNIL	A
99.	7267	SHIVATANKAR SHUBHAM ANANT	P
100.	7268	SURYAWANSHI PRATIKSHA SURYAKANT	P
101.	7269	TALKAR AKANKSHA VIJAY	P
102.	7270	TALKAR PRATIKSHA VIJAY	P
103.	7271	TIRALE SAMIKSHA DATTATRAY	A
104.	7272	VANJARI KOUSTUBH APPASAHEB	P
105.	7273	WAGHMARE PRATIK PANDIT	A
106.	7274	WAKRUSHE DIVYA VITTHAL	P
107.	7275	YADAV ADITI SUDHIR	P
108.	7276	YEVALUJE SWAPNALI MADHUKAR	P
109.	7277	ZENDE MANASWINI MILIND	A
110.	7328	AGALAVE PRAJAKTA VINAYAK	P
111.	7329	AYAREKAR TANAYA SNEHAJIT	P
112.	7330	CHANDAWANI SHRADHA NARESH	P
113.	7331	CHAVAN PRATHAMESH SURESH	A
114.	7332	DAVARI SIDDHI MACHHINDRA	P
115.	7333	KAMBLE SHIVANI UDAY	A
116.	7334	KHARADE KSHITIJA APPASO	P
117.	7335	KOLEKAR NEHA AMOL	P
118.	7336	KURDEKAR SAKSHI KRISHANA	P
119.	7337	MAHADIK PRATHAMESH RAVINDRA	A
120.	7338	MANKAR IFAT ASIF	P
121.	7339	MARULKAR GEETANJALI SUGANDH	P
122.	7340	NAUKUDKAR DISHA DEEPAK	A
123.	7341	NIGADE SAMRUDDHI SUBHASH	P
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126.	7344	PATEL PRIYA SHANTILAL	P

127.	7345	PATIL GAURI DEVBA	P
128.	7346	PATIL PREETI BAJIRAO	A
129.	7347	PATIL RUTWIK SUBHSH	P
130.	7348	PATIL SHRUTIKA SATISH	P
131.	7349	SANGAR SRUSHTI SANTOSH	P
132.	7350	SARDAR SAKSHI SACHIN	P
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151.	7369	KHOT ASHWINI SHIVAJI	P
152.	7370	KULKARNI DIVYA ASHOK	P
153.	7371	KURADE POONAM MARUTI	A
154.	7372	MAHADIK RUCHITA PRASHANT	P
155.	7373	MANE SNEHAL DIPAK	P
156.	7374	MANUVEL ROHAN RAJSHEKHAR	P
157.	7375	MOULAVI SHAGUFTA RIZWAN AHMAD	P
158.	7376	MULLANI SANA CHAND	P
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163.	7381	POWAR PHULABAI PRAKASH	A
164.	7382	RANAMALE POOJA BANDOPANT	P
165.	7383	SABALE RAHUL RATAN	A
166.	7384	SAKHALKAR VEDA SUNIL	P
167.	7385	SALVANKAR SIDDHI DHANANJAY	P
168.	7386	SAWANT SANIYA RAJVARDHAN	P
169.	7387	SHAIKH SANIYA SHAKIL	P

  
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**Marksheet**

Sr No.	Roll No.	Name of the Student	Marks
1.	7169	AVADHUT PRADNYA SUNIL	20
2.	7170	AWALE DAYASAGAR RAJENDRA	12
3.	7171	BAGADE ADITYA KUMAR	20
4.	7172	BAGADE APOORVA KUMAR	Ab
5.	7173	BAGWAN UMRAJIYA SHAKIL	Ab
6.	7174	BEDEKAR SHREYASI SHARAD	Ab
7.	7175	BHUSNAR SHANIRAJ DATTATRAY	18
8.	7176	BODAKE TEJASWINI SHAHAJI	Ab
9.	7177	CHALUCHE PRATAP ARJUN	18
10.	7178	CHALUCHE SWAPNIL ARJUN	17
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38.	7206	KAMBLE HARSHA BABASO	19

39.	7207	KAMBLE MANOJ SANJAY	16
40.	7208	KAMBLE SHIRISH SANJAY	08
41.	7209	KAMBLE SHRIDHAR BALU	14
42.	7210	KAMBLE SWAPNAGANDHA DILIP	20
43.	7211	KAMBLE VISHAL NATHA	20
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76.	7244	PATIL SHIVANI KERABA	Ab
77.	7245	PATIL SHREYAS EKNATH	Ab
78.	7246	PATIL SNEHAL MARUTI	20
79.	7247	PATIL SWARAJ SHIVAJI	20
80.	7248	PATTANKUDE CHAITALI SHITAL	20
81.	7249	PHONDE PANDURANG BABURAO	Ab
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103.	7271	TIRALE SAMIKSHA DATTATRAY	Ab
104.	7272	VANJARI KOUSTUBH APPASAHEB	16
105.	7273	WAGHMARE PRATIK PANDIT	Ab
106.	7274	WAKRUSHE DIVYA VITTHAL	18
107.	7275	YADAV ADITI SUDHIR	20
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133.	7351	SHAIKH NIMRAH SHAKIL	20
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Dr. Jayappa  
Head,  
Department of Zoology  
Vivekanand College,  
Kolhapur (Autonomous)



Shri Swami Vivekanand Shikshan Sanstha's  
**VIVEKANAND COLLEGE (Autonomous), KOLHAPUR**

Class Bsc - I

Div B

Roll No. 7179

Suppliment No. \_\_\_\_\_

Subject Zoology

Test/Tutorial No. Shivani vilas chougale

Q:1 select correct alternative & rewrite the sentences.

i) Body surface of porifera has numerous pores are called ostia.

ii) sclerotic plates are present in aves.

iii) Presence of mammary gland is a characteristics of class mammals.

iv) Metameric, segmented body is present in phylum Annelida.

04

Q.2 Attempt any one.

1) Describe general characters of protista & add a note on phylum ciliophora.

→ General characters of protista:

The organisms which are included in kingdom protista are eukaryotic, unicellular & colonial. protista is one of the kingdom out of five kingdom.

As the general characters of protista given:

i) occurrence:

These are mostly aquatic organisms found in sea, fresh water, moist soil etc.

Some are parasitic or symbiotic.

ii) They are eukaryotic i.e. they have membrane bound nucleus.

These may be macroscopic & microscopic & unicellular or multicellular.

iii) When multicellular, they may be colonial or filamentous or in the form of sheet of cells or in the form of thallus. But even though multicellular the level of organisation is unicellular level of organisation.

iv) Structure of plasma membrane:

It is the outer limiting medium, which also called plasmalemma.

And on plasma membrane, there may be an outer covering of pellicle, cuticle, cellulose or shell.

v) cell organelle:

It has membrane bound organelles like

nucleus, mitochondria, golgi complex & endoplasmic reticulum etc.

The photosynthetic forms have chloroplast.

vi) Locomotory organs:

pseudopodia, flagella or cilia are locomotory organs.

vii) Nutrition:

Nutrition is holozoic i.e. animal like or holophytic i.e. plant like.

Some are parasitic or saprophytic.

Some protists obtain their nutrition by more than one mode called mixotrophic nutrition.

viii) In fresh water forms, the osmoregulation is performed by contractile vacuole.

ix) Reproduction:

Both sexual & asexual reproduction takes place in protista.

The asexual reproduction by process of binary fission, multiple fission or by budding.

The sexual reproduction by syngamy or by the process of conjugation.

x) As protista is classified as plant like protist, animal like protist & fungus like protist.

xi) previously, protist are grouped under phylum protozoa, which further classified as phylum.

- 1) Rhizopoda or sarcodina
- 2) Liliophora or cilliata
- 3) Multigophora or flagelleta
- 4) sporozoa

phylum - ciliophora

i) As the locomotory organ is cilia & feeding

organelles at some stage of life cycle.

ii) They have two type of nuclei

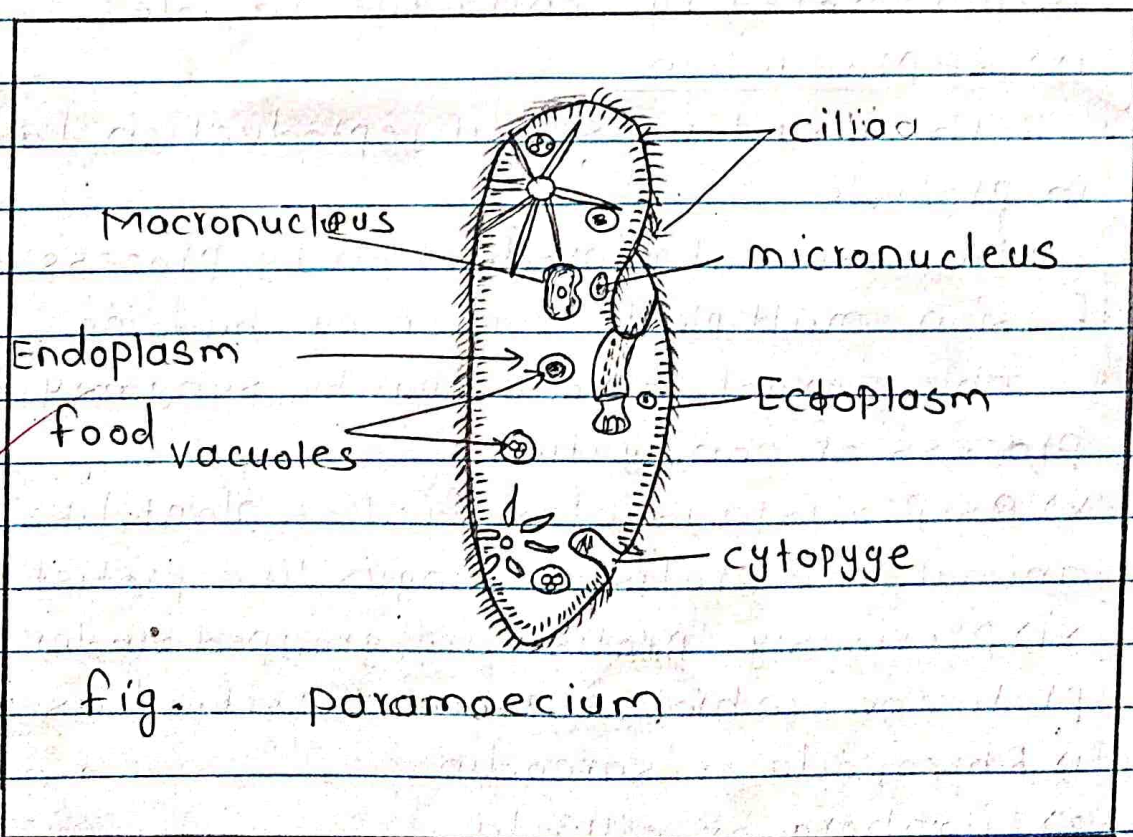
iii) As the cilia persist throughout the life.

iv) Except in two parasitic forms definite mouth & gullet are present.

v) cell anus is permanent. As the nuclei are of two kinds one is macronucleus & small micro-nucleus.

vi) There are various cell organelle like endoplasmic reticulum, food vacuoles nucleus etc. are present.

vii) It has sliper shaped structure in case of Paramecium.





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Signature of Supervisor [ ]

# Shri Swami Vivekanand Shikshan Sanstha's VIVEKANAND COLLEGE (Autonomous), KOLHAPUR

Class Bsc - I DIV B Roll No. 7179  
Suppliment No. \_\_\_\_\_ Subject Zoology  
Test / Tutorial No. Shivani vilas chougale

Q.3 Attempt any two

i) Explain general characters of echinodermato.

→ General characters of Echinodermata :  
[Echines - spines & derma - skin]

i) Habitat;

As these are aquatic, exclusively marine.

ii) These are triploblastic i.e. bears three germ layers i.e. outer ectoderm, middle mesoderm & inner endoderm.

These are coelomate without segmentation. There is no distinct head.

iii) Symmetry;

The radial symmetry observed, generally pentamerous in adults & biradial in larvae.

iv) The shape of body may be flattened & star like elongated or spherical with distinct oral & aboral surface.

v) The mesodermal endoskeleton is hard & calcareous. The endoskeleton may movable or immovable spines.

vi) Presence of water vascular or ambulacral system.

vii) Tube feet;

presence of tube feet which serve for

locomotion, prehention, food capture, respiration etc.

viii) In some forms there is presence of dorsal anus which is unique character.

ix) Respiration:

Respiratory organs are skin, gills or peristomial gills or genital bursae/respiratory trees.

x) circulation:

circulatory system is reduced.

Heart is totally absent.

xi) Excretion:

Excretory system is not seen in echinodermata.

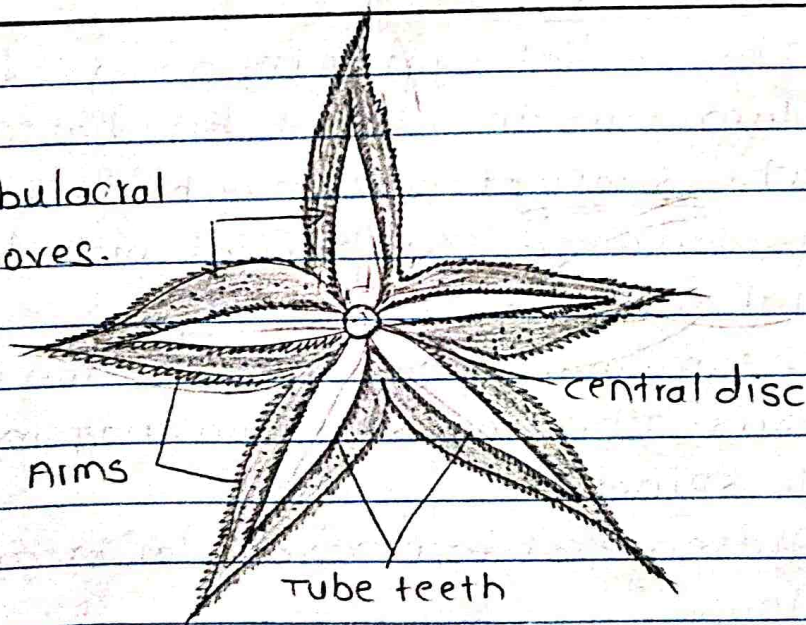
xii) Nervous system lacks the brain.

xiii) Reproduction:

Reproduction is sexual. sexes are separate.

There is no copulation, fertilization is external e.g. Sea star, brittlestar, Sea urchin.

Ambulacral grooves.



(Sea star) Asterias

CM



## 2) General characters of petromyzoni

As the petromyzon includes under the order petromyzoniforms.

i) They are commonly called lampreys.

ii) Habitat:

They are live in the fresh & marine water

iii) Barbels or tentacles are absent around circular mouth & branchial basket is well developed.

iv) Seven pairs of branchial apparatus present.

v) Body is elongated with well developed dorsal fin.

vi) Dorsal median nasal sac present open in mouth

vii) Egg are small & development is indirect.

viii) Free living larva called ammocoete.

ix) Some fresh water forms are free living but others are ectoparasitic on fishes & turtles.

Lampreys are carnivorous. Their feeding method is peculiar.

x) Mouth apparatus as a sucker.

xi) While those are attached to fishes they rasp with flesh with their tongue apparatus & horny teeth on buccal funnel.

xii) Lamprey can swim swiftly to attack fishes.

xiii) They usually live in sea & migrate to fresh water i.e. river for spawning.

xiv) In river they stop feeding & start building nests. Their nests are made up of small stones in river bed.

xv) The male collects pebbles from river beds by their buccal funnel & make a pit.

- xvi) In mating, male holds female head by buccal funnel then two intertwine their bodies.
- xvii) Eggs are squeezed out through the cloaca in the nest & sperm are deposited on them.
- xviii) Fertilization is external.
- xix) After spawning the parent die.

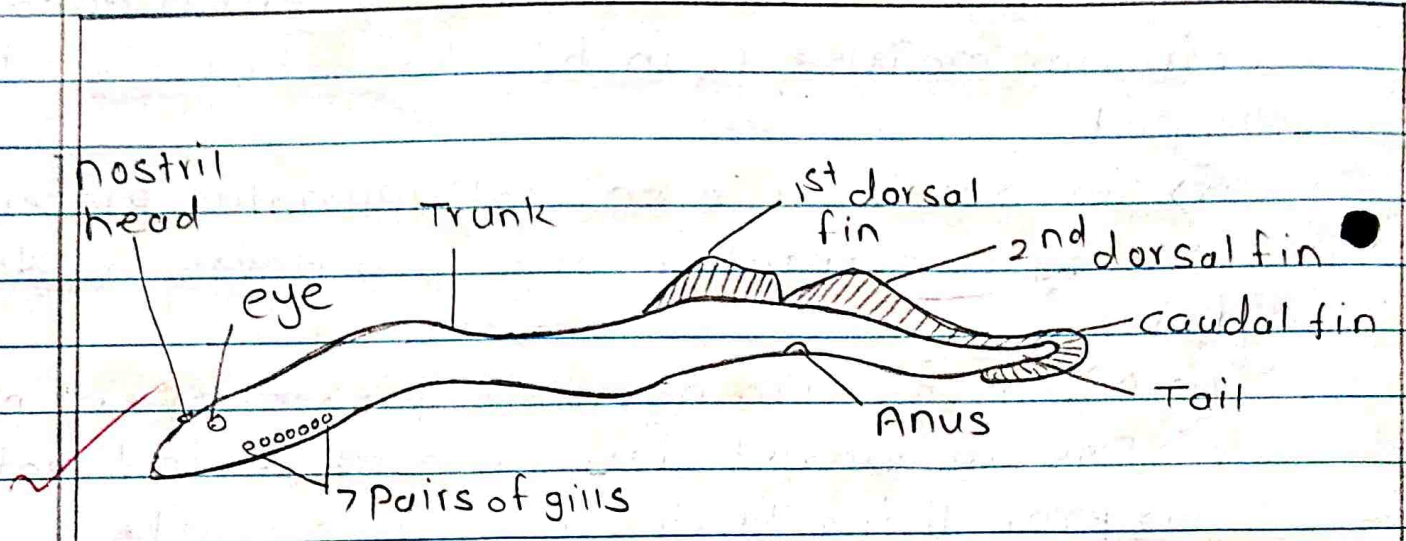


Fig. Petromyzon

04

Name. Nilam Ramchandra Falle.

18



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Signature of Supervisor

[Signature Box]

Shri Swami Vivekanand Shikshan Sanstha's  
**VIVEKANAND COLLEGE (Autonomous), KOLHAPUR**

Class B.Sc-I Div B Roll No. 7188

Suppliment No. \_\_\_\_\_ Subject Zoology

Test / Tutorial No. Home Assignment P-RN = 2019037188

Q.1 Select correct alternative and rewrite the sentence.

1 ✓ Body surface of porifera has humerous spores are called Ostia

2 ✓ Sclerotic plates are present in Aves

3 ✓ Presence of memory gland is a characteristic of class mammals.

4 ✓ Metameric segmented body is present in phylum Annelida

Q.2

Q.2

Attempt any one

2) General characters of Protista :-

The organisms which are included in kingdom protista are eukaryotic, unicellular or colonial. Protista is one of the kingdom out of five kingdoms.

As the general characters of protista given :-

i) Occurance :-

These are mostly aquatic, organisms found in sea, fresh water, moist soil etc.

Some are parasitic or symbiotic.

ii) These are eukaryotic i.e. they have membrane bound nucleus.

These may be macroscopic or microscopic and unicellular or multicellular

iii) When multicellular, they may be colonial or filamentous or in the form of sheets of cells or in the form of thallus but even through multicellular level of organisation is unicellular level of organisation.

iv) Structure of plasma membrane :-

It is the outer limiting medium, which also called plasma lemma.

And on the plasma membrane, there may be an outer covering of pellicle, cuticle, cellulose or shell.

v) Cell organelle :-

It has membrane bound organelles like nucleus, mitochondria, golgi complex, endo-

plasmic reticulum etc.

The photosynthetic forms have chloroplast.

vi) locomotory organs :-

Pseudopodia, flagella or cilia are the locomotory organs.

vii) Nutrition :-

Nutrition is holozoic i.e. animal like or halophytic i.e. plant like.

Some are parasitic or saprophytic

Some protists obtain their nutrition by more than one modes called Mixotrophic nutrition.

viii) In fresh water forms, the osmoregulation is performed by contractile vacuole.

ix) Reproduction :-

Both sexual and asexual reproduction takes in protista.

The asexual reproduction is by the process of binary fission, multiple fission or by budding.

The sexual reproduction with the help of syngamy or by the process of conjugation.

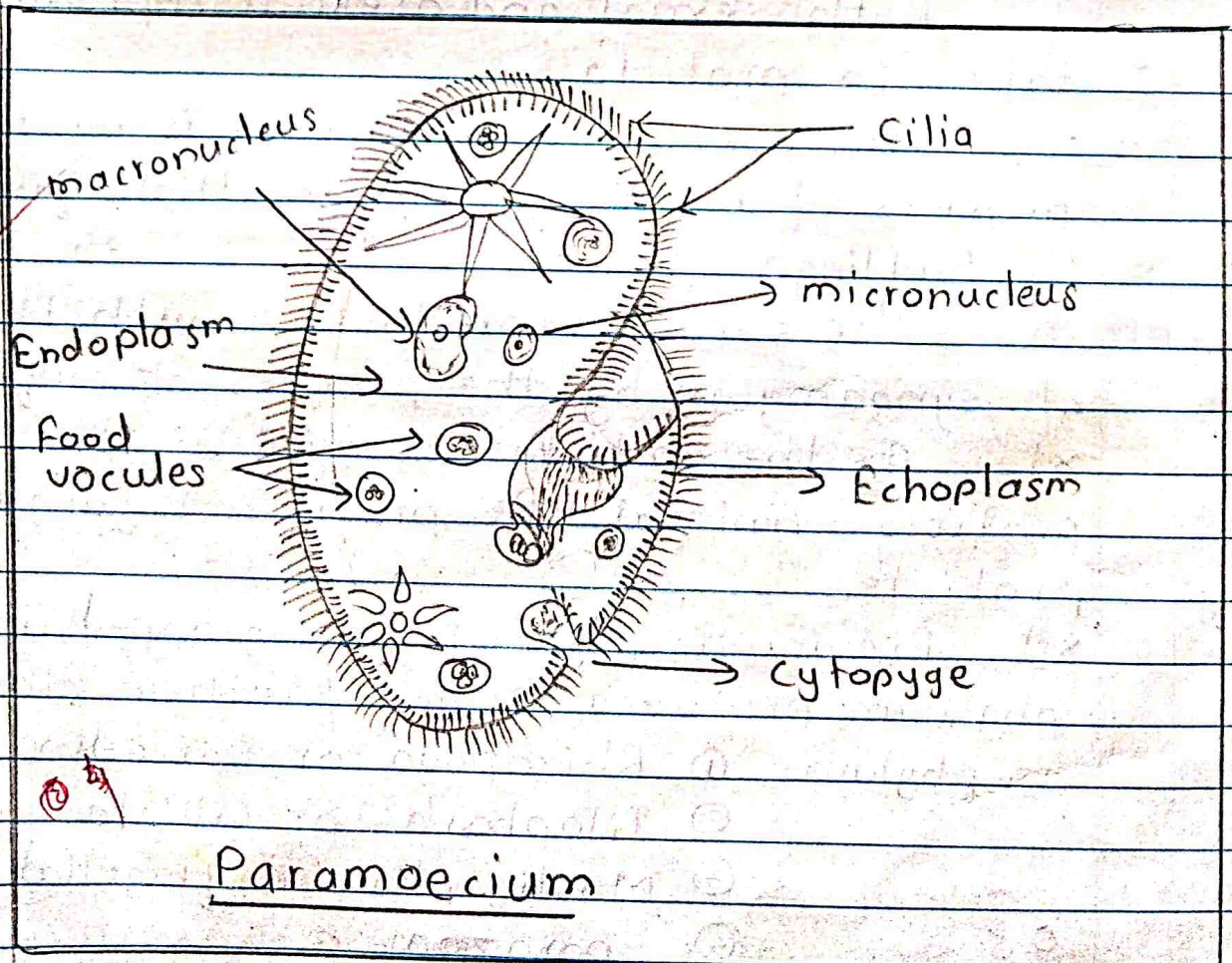
x) As the protista classified as Plant like protists, Animal like protists & fungu like protists.

xi) Previously, protists are grouped under phylum protozoa, which further classified as phylum

- ① Rhizopoda or Sarcodina
- ② Tilophora or Cilliata
- ③ Mastigophora or flagellata
- ④ Sporozoa

Phylum - Ciliophora

- i) As the locomotory organ is cilia and feeding organelles at some stage of life cycle.
- ii) These are two type of nucle
- iii) As the cilia persist throughout the life
- iv) Except in two parasitic forms, definite mouth and gullet are present.
- v) Cell anus is permanent. As the nuclei are of two kinds one is macronucleus and small micronucleus.
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- vii) It has slipper shaped structure in case of paramoecium.



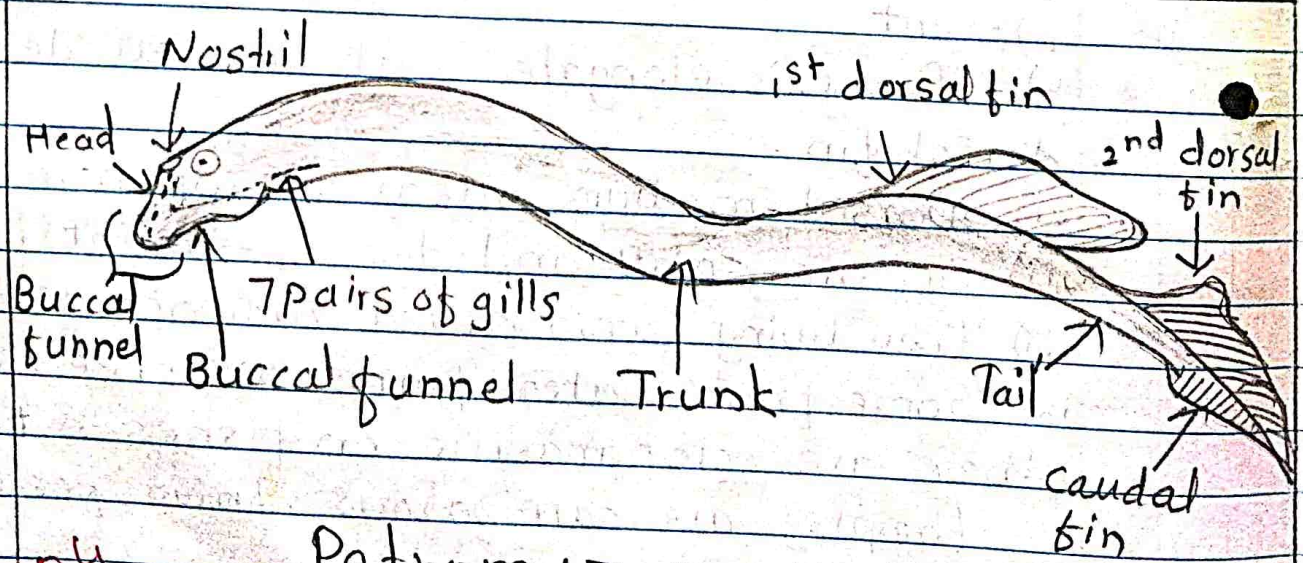


Shri Swami Vivekanand Shikshan Sanstha's VIVEKANAND COLLEGE (Autonomous), KOLHAPUR

Class \_\_\_\_\_ Div \_\_\_\_\_ Roll No. \_\_\_\_\_  
Suppliment No. \_\_\_\_\_ Subject \_\_\_\_\_  
Test / Tutorial No. \_\_\_\_\_

Q3	3) General characters of Petromyzon
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	i) They we commonly called lampreys.
	ii) Habitat :-
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	iv) Seven pairs of branchial apeatus are present
	v) Body is elongated with a well developed dorsal fin.
	vi) Dorsal medium nasal sac open into mouth.
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	viii) Free living larva called Ammocoete.
	ix) Some fresh water forms are free living but other are ectoparasitic on fishes & twotles
	Lamprey are carnivorous. Their feeding method is peculiar.
	x) mouth operates as a sucker.
	xi) While those are attached to the fishes they rasp the flesh with their toungue apparatus

- horney teeth on buccal funnels.
- xii) Lamprey can swim swifly to attack fishes
- xiii) They usually live in sea & migrate to fresh water i.e. river for spawning.
- xiv) In river they stop feeding & start building nests. These nests are made up of small stones in river bed.
- xv) The males collect pebbles from rivers beds by their buccal funnel & make a pit.
- xvi) In mating, male hold female near head by buccal funnel & make a pit.
- xvii) Eggs are squeezed out through the cloaca in the nest & sperms are deposited on them.
- xviii) Fertilization is external
- xix) After fertilization they die
- xx) As these petromyzon include under Agnatha they don't bear jaw.



04

Petromyzon



## 2) General characters of Echinodermata :- [Echines - Spines and derma - skin]

### i) Habitat :-

As these are aquatic, which are exclusively marine.

ii) These are triploblastic i.e. bears three germ layers i.e. outer ectoderm, middle mesoderm and inner endoderm.

These are coelomate without segmentation. There is no distinct head.

### iii) Symmetry :-

The radial symmetry observed, generally pentamerous in adults and biradial in larvae.

iv) The shape of the body may be flattened & star like, spherical or elongated with distinct oral & aboral surface.

v) The mesodermal endoskeleton is hard & calcareous & the endoskeleton is may movable or immovable spines.

vi) Presence of water vascular or ambulacral system.

### vii) Tube feet :-

Presence of tube feet which serve for locomotion, prehension, food capture, respiration etc.

viii) In some forms, there is presence of dorsal anus which is unique character.

### ix) Respiration :-

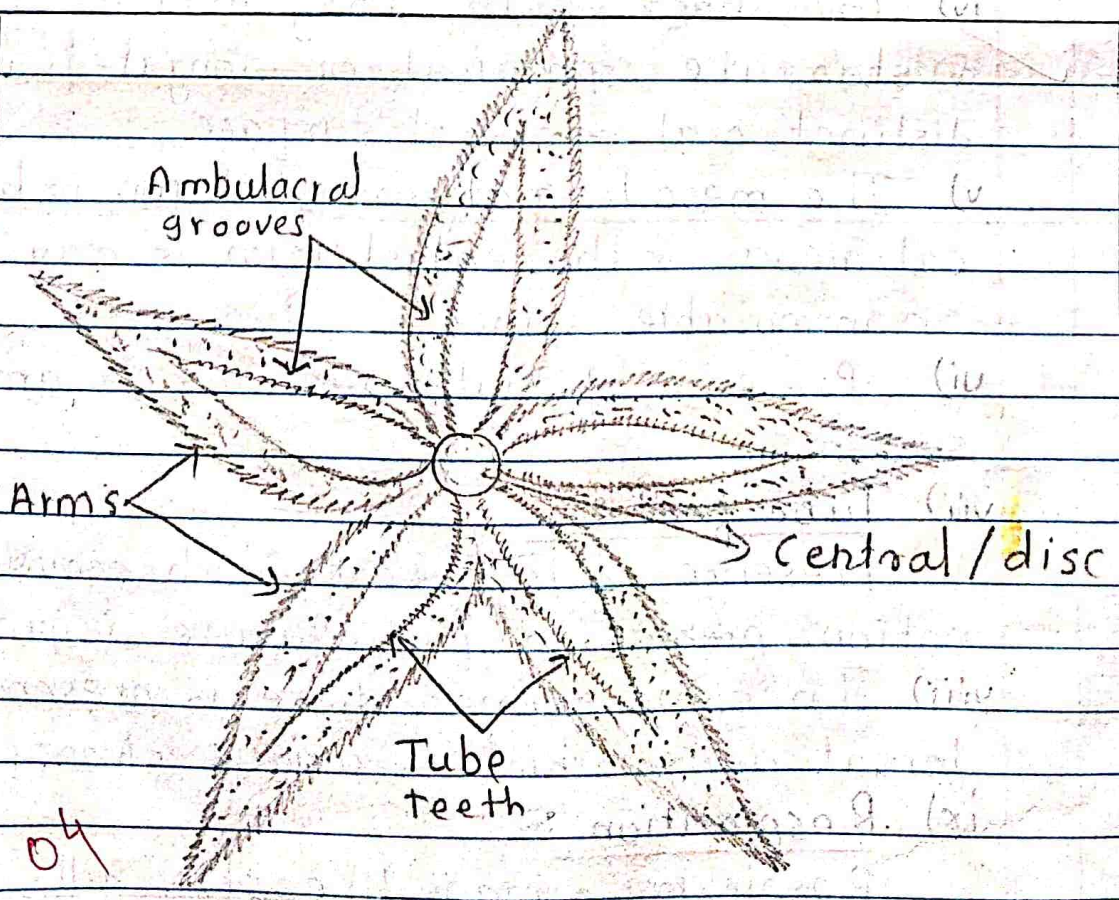
Respiratory organs like skin, gills or peristomial gills or genital buxae or respiratory trees.

x) Circulation :-  
Circulatory system is reduced  
Heart is totally absent

xi) Excretion :-  
Excretory system not seen in echinodermata

xii) Nervous system lacks the brain

xiii) Reproduction :-  
Reproduction is sexual.  
Sexes are separate.  
There is no copulation, fertilization is external.  
Ex - Sea star, Brittle star, Sea-Urchin.



04

Asterias (Sea-Star)