

Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur (Autonomous)
Department of Zoology
Academic Year: 2018-2019

Home Assignment-II for B.Sc. I

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Vivekanand College, Kolhapur (Autonomous)
Department of Zoology

Date: 21/09/2018

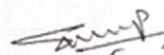
NOTICE

All students of B.Sc. I are hereby informed that, submit Home Assignment-II for Continuous Internal Evaluation (CIE) of B.Sc. I Semester I up to 28/09/2018 at Zoology Department (Lab.49). The questions for Home Assignment-II are given below. Submission is mandatory to all the students.

Q. Attempt the following.

10M

1. Explain importance of classification
2. Explain parasitic adaptations of Platyhelminthes.
3. Explain general characteristics of class Aves.
4. Explain difference between venomous and non-venomous snakes.
5. Explain general characteristics of Agnatha.



Head Department of Zoology

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

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VIVEKANAND KOLLEGE, KOLHAPUR (AUTONOMOUS)
DEPARTMENT OF ZOOLOGY
Academic Year: 2018-2019
B.Sc. Part I- Home Assignment-II
Attendance

Sr. No.	Roll No.	Name of the Student	Attendance
1.	7501	Admuthe Vishal Vijay	P
2.	7502	Bagwan Siddhika Jahidahmad	P
3.	7503	Bavache Dhananjay Kiran	P
4.	7504	Baygol Anil Parshuram	P
5.	7505	Benade Dhanashri Krushnat	P
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13.	7513	Cancelled	-
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16.	7516	Gaikwad Apeksha Yashavant	P
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19.	7520	Ghatage Hrutik Avinash	P
20.	7521	Ghule Shashani Nitin	P
21.	7522	Gokhale Makarand Mohan	P
22.	7523	Gurav Rushikesh Balkrishna	P
23.	7524	Gurav Kedar Sadanand	P
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36.	7537	Katkar Priyanka Indrajit	P
37.	7538	Kazi Tabasum Arif	P

38.	7539	Kesarkar Prajakta Rajaram	P
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Dr. J. P. Kulkarni
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“ ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षण प्रसार ”
- शिक्षणमहर्षी प. पू. डॉ. बापूजी साळुंखे

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

Class B.sc. I Div. B Roll No. 1563

Suppliment No. 01 Subject ZOOLOGY

Test / Tutorial No. Home Assi.

Q.1	Importance of classification.
Answer:-	<p>It is belived that probably kinds of living animals must represent on this earth. so far about 12,00,000 different kinds of species of animals have been identify and name it is estimed that presently over 300 new species are described every year, or the different kinds of animals differ from each other in various ways size, shape, colouration, patterns of development, habits, habitat. The smallest living animals may be as a small as 3u. and largest animals whale may be as a small 30m in length. The animals may be aquatic occuring in the sees and estries, rivers, lacs, pound etc. They may be terrestrial occurs in foreign, mountain and other areas.</p> <p>It is very essential to know about all these anima since they play important role in human life. They an inseparably connected with our food chain and food web and with the enviorment. may of them are useful and several are harmful directly or indirectly. is very easy to undersand various activities. We must know about them and must be able to differentiate one from the other very accurately. certain identification of animals is very essential in many biological species various area of applied zoology such as paracytolos, agricultural and medical entamology, wild life conservation etc. A classic e-g of important of taxonomic studies is the discovery of relationship between</p>

The disease malaria and its vector for disease in Europe is the mosquito Anopheles maculipennis but it was discovered during the second world war that the disease was not always transmitted in the presence of Anopheles maculipennis. After an study on the same mosquito. It was found that there are 5 very closely and similar species and sub-species a true Anopheles maculipennis was actually found to be of parasite of the disease. It was further observed that the particular varieties of spread of disease occur in more southern part of Europe. The female are fertile but the males are sterile.

The detail study on the various species of the particular mosquito has revealed that each of them geometrical distribution such as Reproductive compatibility fertility of hybrid and structure of the egg's floats.

There are several such example which clearly indicate the importance of taxonomic studies, therefore always a growing need to correctly identify the known animal so, for unknown to us these information should be poorly recorded store among zoologist of different part of the world. In taxonomy a no. of character may be consider for relationship among animals. A taxonomy character may be attribute member of taxons of a member. Thus the characters may be morphological, physiological development, ecological, behavioral and geographical, etc.

This is important of classification.

Q.2 Parasitic adaptations of platyhelminthes.

- Answer:
- i. Body is covered externally by tegument or cuticle which protects it from hosts' digestive juice.
 - ii. The long flattened body provides larger surface area for its saprozoic mode of nutrition.
 - iii. The sense organs are altogether absent due to its sheltered habit.
 - iv. Nervous system is poorly development.
 - v. Hermaphroditism for self fertilization.
 - vi. Glycogen and fat content of tissue in parasite is very high.
 - vii. pH tolerance is very high, 4 to 11.
 - viii. Hooks and suckers are present for fixation.
 - ix. The tegument is freely permeable to water and nutrients.
 - x. It is also resistant to digestive enzymes of the host.
 - xi. The internal osmotic pressure is lower than that of host fluid.
 - xii. Tapeworm secretes antienzymes to neutralise the digestive enzyme of gut.
 - xiii. It is well developed scolex having four suckers and hooks to anchor with the internal wall of the host.

Q.3 General characteristics of class aves

Answer: i. The members of class aves are commonly known as birds. class aves has about 9000 species.

ii. Birds are bipedal feathered and warm blooded animals.

iii. Body usually spindle shaped; with four div. neck, trunk, head, tail.

iv. Epidermal covering of epidermis and dermis of feather.

v. Thin integument of epidermis.

vi. No skin glands. Ostrich and parrot lack oil gland.

vii. The skull is monocondylic i.e. with one occipital scales.

viii. Lower jaw is composed of originally of five or six bones.

ix. Modern birds have no teeth.

x. Posterior caudal vertebrae reduced and fused to form pygostyle.

xi. vertebral ribs are double headed, provided with unciniate process.

xii. The clavicles and interclavicles unite to form a V-shape forcula.

xiii. In the legs, the ankle joint is inter-tarsals.

xiv. Gall bladder is absent in some seed-eating birds- pigeons.

xv. Respiration is by lungs. The lungs are spongy and inelastic.

16. The heart is four chambered. Sinus venosus absent.
17. Renal portal system is very much reduced.
18. The kidneys are metanephric, three lobed, which drain the nitrogenous waste water into cloaca through the ureters.
19. urinary bladder is absent except Rhear Americana.
20. Brain is better developed than reptiles.
21. Pinna of ear rudimentary.
22. Birds have a keen sense of sight but poor sense of smell but, kiwi has good sense of smell.
23. Single bone in middle ear.
24. sexes are separate and sexual dimorphism is well developed.
25. female has usually well developed single left ovary & oviduct.
26. all birds are oviparous and four embryonic membranes.
27. adept navigational abilities in many species.
28. Extraordinary communication and song production.
29. The birds are the most beautiful among the animals.
30. Parental care is well developed.

Q.4 The difference between venomous & non-venomous snakes.

Venomous snakes		Non-venomous snakes	
i. Tail flat, compressed.	ii. Tail round, cylindrical.		
ii. Sea Snake	ii. Terrestrial Snake.		
iii. Body colour is generally bright.	iii. Body colour is generally not bright.		
iv. Neck is constricted	iv. No constriction in the neck.		
v. Head shield is very large.	v. Head shield is small.		
vi. Head is triangle shaped.	vi. Head is rounded, shaped.		
vii. poison venom gland present.	vii. poison venom gland absent.		
viii. pupil of eye is elliptical pupil.	viii. pupil of eye is round pupil.		
ix. ventral scales are usually large transverse plates.	ix. ventral scales are small or somewhat broad.		
x. Head scales are on top of head are usually small.	x. Head scales are top of head are usually large.		
xi. Dorsal Scales are smaller.	xi. Dorsal Scales are large & long.		
xii. examples:- cobra, king cobra, Russell's viper, viper, krait.	xii. examples:- Rat snake, python and water snake.		

Q.5. General characteristics of Agnatha.

- i. animals are live in fresh, marine water.
- ii. In these animals paired appendages absent.
- iii. These animals are jawless.
- iv. In agnatha external type of fertilization.
- v. eggs are telocithal.
- vi. circular mouth is present.
- vii. animals are endoskeleton.
- viii. Open type blood circulation.
- ix. sexes are separate.
- x. animals are parasitic.
- xi. These animals are cold blooded.
- xii. Nervous system is well developed.
- xiii. Respiratory organ is gills.
- xiv. skull has a membranous roof.
- xv. single median nasal opening present.

16. These animals are earliest known as vertebrates.
17. A presence of buccal, circular mouth.
18. One or two semicircular canals present in ear.
19. Heart is two chambered.
20. pineal apparatus fairly well developed.
21. gonads are without gonoducts.
22. Gills are respiratory organs and there are 6 to 14 pairs of internal gills present.
23. development is direct or indirect.
24. Most species are hermaphrodite.
25. dorsal and caudal fin present.
26. cleavage is holoblastic OR Meroblastic.
27. Mesonephric kidneys are present for excretion.
28. These animals are parasitic, predators.
29. one paired appendages and exoskeleton are absent.
30. Body is elongated.