

Roll No.

Total Printed Pages - 8

F-322

M.Sc. (First Semester)
EXAMINATION, Dec. - Jan., 2021-22

ZOOLOGY

Paper First

(Biosystematics, Taxonomy and Biodiversity)

*Time : Three Hours]**[Maximum Marks : 80**[Maximum Pass Marks : 16*

Note - Attempt all questions as directed

Section - A**(Objective / Multiple choice questions) (1 mark each)****Note :** Attempt all questions :

Choose the correct answers.

1. The term taxonomy was coined by

- (A) De candolle
- (B) Theophrastus
- (C) Pliny
- (D) Linnaeus

2. The term taxon was given by

- (A) Meyer
- (B) Linnaeus
- (C) Lamark
- (D) John ray

3. Karyotaxonomy is a component of ____

- (A) Cytotaxonomy
- (B) Experimental taxonomy
- (C) Biochemical taxonomy
- (D) Numerical taxonomy

4. Which of the following is not covered under taxonomy _

- (A) Alpha taxonomy
- (B) Beta taxonomy
- (C) Delta taxonomy
- (D) Gamma taxonomy

5. The reproductive isolating factor occurring when sperm and an egg are incompatible is

- (A) Temporal isolation
- (B) Ecological isolation
- (C) Gametic isolation
- (D) Behaviarical isolation

[3]

6. Species the biological concept is applicable only to the breeding population
- (A) That are adequately large to constitute a viable reproductive group
 - (B) That are adequately uniform to be reorganized by observation
 - (C) In experimental condition
 - (D) In nature
7. Two organism with different correlated morphological characters belong to
- (A) One biological species
 - (B) One taxonomic species
 - (C) Two biological species
 - (D) Two taxonomic species
8. This type of speciation enable production of hybrids between two species
- (A) Allopatric
 - (B) Parapatric
 - (C) Bottleneck
 - (D) Sympatric
9. Related species which are reproductively isolated but morphological similar.
- (A) Allopatric
 - (B) Sympatric
 - (C) Sibling
 - (D) Morphospecies

F-322

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[4]

10. The origin of species was written by
- (A) Charles Darwin
 - (B) Ludmila Kuprinova
 - (C) Mikhail A. Fedonkin
 - (D) None of the above
11. In an artificial system of classification
- (A) A large no. of characters are taken into consideration
 - (B) Correlated characters are relied upon
 - (C) Physiological characters are relied upon
 - (D) One or few morphological characters are considered.
12. Lectotype is
- (A) Duplicate of Holotype
 - (B) Specimen describe along with Holotype
 - (C) Specimen cited by author without making one Holotype
 - (D) Specimen selected from original material for nomenclature type when there is no Holotype
13. The _____ is the biological plant and animal specimens occur for the study purpose and situated in educational institute
- (A) Botanical garden
 - (B) Museum
 - (C) Herbarium
 - (D) Children park

F-322

[5]

14. The key of Taxonomical aids are based on the contrasting characters basically in a pair and it is called as ____
- (A) Triplet
 - (B) Couplet
 - (C) Quadrate
 - (D) Monolete
15. In the result, acceptance of only one and rejection of the other this statement in the key is known for ____
- (A) Lead
 - (B) Generation
 - (C) Call
 - (D) Centre
16. The zoological park are the where _____ are kept in protected environment under human care .
- (A) Dead snakes
 - (B) Bird in cage
 - (C) Soft worm only
 - (D) Wild animals
17. Galapagos finches are good examples of ____
- (A) Extinction
 - (B) Heterochromia
 - (C) Island gignatism
 - (D) Adaptive radiation

[6]

18. _____ is the one of the most prevent hot spots of biodiversity in India -
- (A) Himalayas
 - (B) Western ghat
 - (C) Ganges
 - (D) None of the above
19. _____ is the non renewable resources
- (A) Crude oil
 - (B) Uranium
 - (C) Hot spring
 - (D) Silica
20. _____ Is the defined as the number of species represent in the specific region, landscape or an ecological community-
- (A) Coevolution
 - (B) Commensalism
 - (C) Species richness
 - (D) Population density

[7]

Section - B

(2 marks each)

(Very short answer type questions)

Note : Attempt all questions using 2-3 sentences.

1. Define biosystematic.
2. One application of taxonomy.
3. Sibling Species.
4. Morphospecies.
5. I C Z N.
6. Flootation methods.
7. Ex situ condition.
8. Threats.

Section - C

(3 marks each)

Note- Attempt all questions precisely using approximately 75 words

Write notes on the following :

1. Molecular taxonomy.
2. What is quarantine?
3. Eco and Ceno species.

[8]

4. Evolutionary species concept.
5. Curating.
6. Aspirator.
7. Ecological diversity.
8. Extinct animal.

Section - D

(5 marks each)

(Long Answer type questions)

Note : Attempt all questions precisely using 150 words.

1. Explain the molecular taxonomy.

or

Describe the historical resume of systematics.

2. Write an essay on origin of species.

or

Describe the Biological concept of species.

3. Write notes on any two

(a) Indented key

(b) Circular key

(c) Collection at Insect

4. Write an essay on conservation of biodiversity.

or

Describe the Zoological Nomenclature.