

230217178104

23BCP113

**UG PROGRAM (4 YEARS HONORS) WITH SINGLE MAJOR  
AT THE END OF FIRST SEMESTER**

**INTRODUCTION TO CLASSICAL BIOLOGY**

(Common for B.Sc. (Human Genetics, Forensic Science, Cyber Forensics, Botany, Bio-Chemistry, Bio-Technology, Microbiology, Zoology, Aquaculture, Fisheries, Forestry, Horticulture, Agriculture and Rural Development), B.Voc (Agriculture, Horticulture, Industrial Aquaculture and Fisheries, Agriculture and Entrepreneurship, Fisheries))

(w.e.f. Admitted Batch 2023-24)

Time: 3Hours

Maximum: 70 marks

**SECTION-A (Multiple Choice Questions)**

30x1=30

1. Which system of Nomenclature is used for naming species in biology [ ]  
A) Ternary nomenclature  
B) Multinomial nomenclature  
C) Trinomial nomenclature  
D) Binomial nomenclature
2. The Natural place of an organism or community is known as [ ]  
A) Niche  
B) Biome  
C) Habitat  
D) Habit
3. Which one of the following is not a functional unit of an ecosystem? [ ]  
A) Energy Flow  
B) Decomposition  
C) Productivity  
D) Stratification
4. In an ecosystem, the energy flow [ ]  
A) Always unidirectional  
B) Always bidirectional  
C) In any direction  
D) Always down directional
5. Father of Ecology in India is [ ]  
A) R.Misra  
B) E.P.Odum  
C) Tansley  
D) Haeckel
6. Land plants that can tolerate the salinities of the sea are called [ ]  
A) Halophytes  
B) Heliophytes  
C) Sciophytes  
D) Hydrophytes
7. Which group of plants are called Amphibians of plant Kingdom? [ ]  
A) Pteridophyta  
B) Bryophyta  
C) Gymnosperms  
D) Angiosperms
8. Site of photosynthesis is [ ]  
A) Chloroplast  
B) Mitochondria  
C) Nucleus  
D) Vacuole

9. Naked seeds occurs in

- A) Angiosperms
- C) Pteridophytes

B) Gymnosperms

D) Bryophytes

10. The only Triploid tissue in angiosperm is

- A) Embryo
- C) Endosperm

B) Zygote

D) Pollen grain

11. Five kingdom classification was given by

A) Whittaker

C) Carl Woese

B) Linnaeus

D) Bauhin

12. What is the primary distinction between monocots and dicots

A) Number of petals in the flower

C) Number of Cotyledons in the seed

B) Presence of Vascular tissues

D) Methods of reproduction.

13. Sponges come under the Phylum

A) Protozoa

C) Cnidaria

B) Porifera

D) Ctenophora

14. Term ..... is given by Leuckart

A) Coelenterata

C) Cnidaria

B) Porifera

D) Ctenophora

15. Comb jellies are also called as.....

A) Coelenterons

C) Ctenophorans

B) Protozoans

D) Platyhelminthes

16. Sea stars, Brittle stars, Sea lily come under the phylum

A) Echinodermata

C) Annelida

B) Chordata

D) Arthropoda

17. The term Arthropoda was first used by.....

A) Lamarck

C) Von Siebold

B) Gegenbaur

D) Johnston

18. In this, the cleavage furrows are straight and form right angle with each other

A) Biradial

C) Spiral

B) Bilateral

D) Radial

19. Types of ribosomes found in eukaryotic cells

A) 70S

C) 70S & 80S

B) 80S

D) 70S or 80S

20. Chromosomal splitting takes place in which phase of mitosis [ ]

A) Prophase

B) Metaphase

C) Anaphase

D) Telophase

21. Spindle fibers attach on to [ ]

A) Telomere of the chromosome

B) Kinetochore of the chromosome

C) Centromere of the chromosome

D) Kinetosome of the chromosome

22. Who is known as Father of Genetics [ ]

A) Mendel

B) Morgan

C) Bateson

D) Watson

23. 1:1:1:1 ratio shows [ ]

A) Monohybrid cross

B) Dihybrid cross

C) Back cross

D) Dihybrid test cross

24. Location of the ribosomes in eukaryotic cells is [ ]

A) Cytoplasm

B) Attached to ER

C) Inside Mitochondria

D) Inside chloroplasts

25. Which one of the following conducts electricity [ ]

A) Ionic compounds in the solid-state

B) Covalent compounds in the solid state

C) Ionic compounds in aqueous solution

D) Covalent compounds in aqueous solution

26. Which one of the following compounds are involved in hydrogen bonding [ ]

A) Water

B) Ethanol

C) Acetic acid

D) All

27. Which one of the following is a metalloid [ ]

A) Potassium

B) Silicon

C) Chromium

D) None

28. Which one of the following is a mixed oxide [ ]

A)  $Fe_3O_4$

B)  $Al_2O_3$

C)  $Cl_2O_7$

D) None

29. Green chemistry is also called as [ ]

A) Life chemistry

B) Sustainable chemistry

C) Organic chemistry

D) Inorganic chemistry

30. What is the PH of Lemon Juice [ ]

A) 3.8

B) 6.6

C) 5.5

D) 2.5

**SECTION-B (Fill in the blanks)**

10x1=10

31. A group of interacting populations is called a \_\_\_\_\_.
32. \_\_\_\_\_ are ecological areas on the Earth's surface, with similar fauna and flora adapting to a similar environment.
33. The Primary pigment involved in capturing light energy during Photosynthesis is \_\_\_\_\_.
34. Mushrooms are the \_\_\_\_\_ structure of Fungi, typically arising from Mycelium.
35. \_\_\_\_\_ regulates body activities using hormones.
36. Outer most germ layer of the embryo is \_\_\_\_\_.
37. The term cell was coined by \_\_\_\_\_.
38. Lysosomes are also known as \_\_\_\_\_.
39. Quaternary ammonium salts are used as \_\_\_\_\_ catalyst.
40. In the reaction between sodium and chlorine to give sodium chloride, the element that undergoes oxidation is \_\_\_\_\_.

**SECTION-C (Very short answer questions)**

10x1=10

41. What does ICBN Stands for?
42. What is deforestation?
43. What is Casing?
44. What is Pollination?
45. Which is the hormone responsible for growth and development in human beings?
46. Name the Scientific name of rock-bee.
47. What is the central dogma of molecular biology?
48. What is Heredity?
49. What are Biocatalysts?
50. Name the isotopes of hydrogen.

**SECTION-D (Match the following)**

2x5=10

I.

51. Succession

52. Guard Cells

53. Mulberry silk

54. Smooth endoplasmic reticulum

55. Tetrahedral molecule

- A) Regulate the opening and closing of stomata
- B) Bombyx mori
- C) Methane
- D) Pioneer species
- E) Lipid Synthesis

II.

56. Grasshopper [ ] A) Store and carries WBCs that fight diseases  
57. C<sub>3</sub> Cycle [ ] B) Yellow dominant over green  
58. Lymphatic system [ ] C) Consumer  
59. Seed Colour [ ] D) Na Cl  
60. Ionic bond [ ] E) Calvin

SECTION-E (True/False)

10x1=10

61. Nitrogen is a greenhouse gas. (True/False)  
62. Ocean is the largest Carbon sink on the Earth. (True/False)  
63. Microsporogenesis is the process of producing microspores, which develop into female gametophytes. (True/False)  
64. Woody plants carry gaseous exchange through lenticels. (True/False)  
65. The second largest phylum of animal kingdom is Mollusca. (True/False)  
66. Medium chain Acyl-CoA dehydrogenase deficiency is a carbohydrate disorder. (True/False)  
67. Nuclear membrane is absent in Prokaryotic cells. (True/False)  
68. Crossing over occurs in Leptotene of Prophase-I. (True/False)  
69. Sodium chloride is formed by the transfer of an electron from sodium atom to chlorine atom. (True/False)  
70. The bond formed between an electronegative element and an electropositive element is known as a covalent bond. (True/False)