VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
DEPARTMENT OF ZOOLOGY

Course Code:	09CT11	Programme:	B.Sc.,	CIA:	I
Date:	19.10.2021	Major:	Zoology	Semester:	I
Duration:	2 Hours	Year:	I	Max.Marks:	50
Course Title:	INVERTEBRATES - I				

SECTION – A (Remembering)

Answer **ALL** the Questions: **(10 X 1 = 10 Marks)**

1 The lack of notochord animal is called----------   **CO1**
   a. Vertebrates   b. Invertebrates   c. Chordates   d. Birds
2 Which one of the following animal is called slipper animalcule   **CO1**
   a. Euglena   b. Volvox   c. Paramecium   d. Amoeba
3 Which of the following synthetic drug is cure malaria?   **CO1**
   a. Quinine   b. Daraprim   c. Chloroquine   d. All of these
4 Canal system is the characteristic of   **CO2**
   a. Sponges   b. Coelentrates   c. Both a and b   d. None of these
5 Endoskeleton of sponge is ----------   **CO2**
   a. Spicules   b. Conidoblast   c. Cillia   d. Trichocyst
6 The key functions of canal system in sponge is----------   **CO2**
   a. Respiration   d. Nutrition   c. Excretion   d. All of these
7 Spicules has three rays is known as   **CO2**
   a. Monaxon   d. Diaxon   c. Triaxon   d. Tetraxon
8 Protonephridia is a ___   **CO4**
   a. Excretory system   b. Digestive system   c. Circulatory system d. Blood suckers
9 Trochophore theory was proposed by   **CO4**
   a. Hatschek   b. Lankester   c. Hanson   d. Hadzi
10 First formed bilateria is   **CO4**
   a. Hemichordate   b. Platyhelminthes   c. Mollusca   d. Arthropoda

SECTION – B (Remembering)

Answer any **FIVE** Questions: **(5 X 2 = 10 Marks)**

11 Write any two general features of phylum protozoa   **CO1**
12 Give a short comment on the methods of protozoan locomotion   **CO1**
13 What are spicules?   **CO2**
14 Comment on gemmules.   **CO2**
15 Write any two significant characteristic features of phylum Porifera   **CO2**
16 Enlist the polyphyletic theory   **CO4**
17 What is flame cell?   **CO4**

SECTION – C (Understanding)

Answer any **THREE** Questions: **(3 X 6= 18 Marks)**

18 Write an account on *Entamoeba histolytica* and discuss its mode of action and causing   **CO1**
   diseases.
19 Give a brief account on the life cycle of *plasmodium*.   **CO1**
20 Enumerate the methods of reproduction of sponges   **CO2**
21 Explain the structure of *Fasciola hepatica.*   **CO4**
22 Briefly explain the general characters of Platyhelminthes   **CO4**

SECTION – D (Applying)

Answer any **ONE** Question: **(1X 12= 12 Marks)**

23 Write detailed account on the paramecium structure and its conjugation.   **CO1**
24 Give a detailed account on life cycle of Liver fluke.   **CO4**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
DEPARTMENT OF ZOOLOGY

Course Code:	09CT12	Programme:	B.Sc.	CIA:	I
Date:	22.10.2021	Major:	Zoology	Semester:	I
Duration:	2 Hours	Year:	I	Max.Marks:	50
Course Title:	INVERTEBRATES - II				

SECTION – A (Remembering)

Answer **ALL** the Questions: **(10 X 1 = 10 Marks)**

1   Annelids are ___   **CO1**
    a) Bilateral symmetry b) Asymmetry   c) Radial symmetry   d) none of these
2   Longitudinal and circular muscles are found in the body wall of   **CO1**
    a) Sponges   b) Cnidarians   c) Annelids   d) None of these
3   Trocophore larva is found in   **CO1**
    a) Cnidarians   b) Cockroach   c) Annelids   d) Sponges
4   Which class of annelids having bundles of setae?   **CO1**
    a) Oligocheata   b) Polychaeta   c) Hirudinea   d) Echiurodiea
5   In annelids which group do not contain parapodia and setae?   **CO1**
    a) Oligocheata   b) Polychaeta   c) Hirudinea   d) Echiurodiea
6   Insect which yield useful products are called ____   **CO3**
    a) Beneficial insects   b) Harmful insects   c) Productive insects d) Parasitic insects
7   The worker cells of honey bees are _____ in shape.   **CO3**
    a) Triangular   b) Square   c) Hexagonal   d) Round
8   Scorpion belongs to the phylum___   **CO3**
    a) Arthropoda   b) Annelida   c) Nematoda   d) Mollusca
9   The nest of termite is called____   **CO3**
    a) Houses   b) Hive   c) Formicaries   d) Termitarium
10 The phenomenon of the existence of several morphological forms in a species is called_   **CO3**
    a) Caste system   b) Polymorphism   c) Co-operation   d) Warming

SECTION – B (Remembering)

Answer any **FIVE** Questions: **(5 X 2 = 10 Marks)**

11   What is coelom?   **CO1**
12   Define parapodia.   **CO1**
13   What is hermaphrodite?   **CO1**
14   Comment on carapace.   **CO3**
15   Write a short note about termitarium.   **CO3**
16   Define Polymorphism.   **CO3**
17   What are living fossils?   **CO3**

SECTION – C (Understanding)

Answer any **THREE** Questions: **(3 X 6= 18 Marks)**

18   Enlist the morphological features of Nereis with labelled diagram.   **CO1**
19   Discuss the adaptive radiation in polychaetes.   **CO1**
20   Write a note about the beneficial insects.   **CO3**
21   Discuss briefly the social life of insects.   **CO3**
22   Describe briefly the general characters of scorpion.   **CO3**

SECTION – D (Applying)

Answer any **ONE** Question: **(1X 12= 12 Marks)**

23   Give a detailed account on general characteristic features of phylum Annelida.   **CO1**
24   Write an essay on economic importance of insects.   **CO3**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
DEPARTMENT OF ZOOLOGY

Course Code:	09CT31	Programme:	B.Sc.,	CIA:	I
Date:	05.10.2021	Major:	Zoology	Semester:	III
Duration:	2 Hours	Year:	II	Max.Marks:	50
Course Title:	CELL BIOLOGY				

SECTION – A (Remembering)

Answer **ALL** the Questions: **(10 X 1 = 10 Marks)**

1. The light conferring maximum resolving power to a light microscope is **CO1**
   a) Green   b) Red   c) Blue   d) Yellow
2. Disruption of cell membrane and release of subcellular components is called **CO1**
   a) Chromatography b) Mounting c) Homogenization   d) Embedding
3. In centrifuge, the molecules are separated on the basis of **CO1**
   a) Density   b) Polarity   c) Charge   d) Gravity
4. Mitochondria are store houses of **CO3**
   a) Glycogen   b) Glucose   c) ATP   d) Fats
5. Sedimentation unit of ribosome is **CO3**
   a) Micron   b) Millimicron c) Angstrom d) Svedberg
6. Which cell organelle is called protein factory? **CO3**
   a) Ribosome   b) Mitochondria c) Lysosome d) Golgi body
7. Enzymes of glycolysis are located in **CO3**
   a) Endoplasmic reticulum   b) Cytosol
   c) Mitochondrial surface   d) Glyoxysomes
8. The concept of operon was proposed by **CO5**
   a) Griffith   b) Alexander Fleming c) Jacob and Monad d) Mendel
9. The peptidyl transferase reaction occurs in **CO5**
   a) Small subunit   b) Large subunit   c) Between the subunits of ribosome d) Cytosol
10. The RNA constituting ribosome along with protein is **CO5**
    a) mRNA   b) tRNA   c) rRNA   d) All the above

SECTION – B (Remembering)

Answer any **FIVE** Questions: **(5 X 2 = 10 Marks)**

11. Define fixation. CO1
12. What is resolving power? CO1
13. Mention the two types of ER CO3
14. Define oxidative phosphorylation CO3
15. What is F1 particle? CO3
16. What are the two functions of RNA polymerase? CO5
17. Differentiate 70S and 80S ribosomes CO5

SECTION – C (Understanding)

Answer any **THREE** Questions: **(3 X 6= 18 Marks)**

18. Give an account on cell theory CO1
19. Write down the procedure for isolation of cellular components CO1
20. Explain why the mitochondria is the power house of the cell CO3
21. Draw a flow diagram showing the reactions of Kreb's cycle CO3
22. How are protein synthesized? CO5

SECTION – D (Applying)

Answer any **ONE** Question: **(1X 12= 12 Marks)**

23. Discuss electron microscopy. CO1
24. Elucidate lac operon in *E.coli.* CO5

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
DEPARTMENT OF ZOOLOGY

Course Code:	09CT32	Programme:	B.Sc.,	CIA:	I
Date:	09.10.2021	Major:	Zoology	Semester:	III
Duration:	2 Hours	Year:	II	Max.Marks:	50
Course Title:	GENETICS				

SECTION – A (Remembering)

Answer **ALL** the Questions: (10 X 1 = 10 Marks)

1 Genetics is a branch of biology, which deals with **CO1**
a. Laws of heredity and variations   b. Process of cell division at gametogenesis
c. Formation of new species through natural selection   d. All

2 The phenotypic ratio of monohybrid cross is **CO1**
a. 3:1   b. 1:2:1   c. 1:1   d. 9:3:3:1

3 Mendel's experimental material was **CO1**
a. *Pisum sativum*   b.*Lathyrus odaratus*   c. *Oryza sativa*   d. *Mirabilis jalappa*

4 Who coined the term linkage? **CO3**
a. Correns   b. Mendel   c. Morgan   d. de Vries

5 How many linkage groups of chromosomes will be present in case of maize, if all its genes are mapped? **CO3**
a) 5   b) 10   c) 15   d)100

6 Crossing over occurs during **CO3**
a) Pachytene   b) diplotene   c) diakinesis   d) pachytene

7 Coupling and repulsion are experimented on fruit fly by **CO3**
a. Bateson   b. Morgan   c. Punnet   d. Sinnot

8 Which of the following type of sex determination occurs in man? **CO4**
a. XX – XO   b. XY – XO   c. XX – XY   d. XXX - XY

9 Haemophilia is more common in males because of **CO4**
a. Recessive character carried by Y-chromosome
b. Dominant character carried by Y-chromosome
c. Dominant trait carried by X-chromosome
d. Recessive trait carried by X-chromosome

10 The Y linked genes are called **CO4**
a. Chromosomes   b. Sex linkage   c. HH gene   d. Holandric gene

SECTION – B (Remembering)

Answer any **FIVE** Questions: (5 X 2 = 10 Marks)

11 Comment on mendelisms **CO1**
12 What is backcross? **CO1**
13 What is coupling? **CO3**
14 Mention the factors affecting linkage **CO3**
15 Write the significance of crossing over **CO3**
16 What is Gyanandromorphism? **CO4**
17 Comment on Barr body **CO4**

SECTION – C (Understanding)

Answer any **THREE** Questions: (3 X 6= 18 Marks)

18 Write the reasons for Mendel's success **CO1**
19 Analyse the biochemical basis of Epitasis **CO1**
20 Discuss the mechanism of crossing over **CO3**
21 Write an account on colour blindness **CO4**
22 Explain the bleeder's disease with suitable examples **CO4**

SECTION – D (Applying)

Answer any **ONE** Question: (1X 12= 12 Marks)

23 Write an essay on Mendel's law with illustrations **CO1**
24 Discuss in detail about chromosomal theory of sex determination in animals **CO4**

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
DEPARTMENT OF ZOOLOGY

Course Code:	09SB31	Programme:	B.Sc	CIA:	I
Date:	04.10.2021	Major:	Zoology	Semester:	III
Duration:	1 Hour	Year:	II	Max. Marks:	25
Course Title:	PUBLIC HEALTH AND HYGIENE				

SECTION – A (Remembering)

Answer **ALL** the Questions: (5X 1 = 5 Marks)

1 The most important function of carbohydrate is   **CO1**

   a. Heart function   b. Supply energy   c. Tissues formation   d. Liver formation

2 Where is the headquarters of WHO located?   **CO1**

   a. Geneva   b. USA   c. India   d. Russia

3 Surface water originates from   **CO2**

   a. Rain water   b. Dam water   c. Sea water   d. River water

4 AIDS is an epidemic   **CO3**

   a. Bacterial disease   b. Fungal disease   c. Viral disease   d. Protozoan disease

5 Amoebiasis is caused by   **CO3**

   a. E.coli   b. E. histolytica   c. S. typhi   d. V. cholerae

SECTION – B (Remembering)

Answer any **TWO** Questions: (2 X 2 = 4 Marks)

6 Define Balanced diet.   **CO1**

7 What is Beri-beri?   **CO1**

8 Enlist the water quality index?   **CO2**

9 Write the symptoms of Amoebiasis.   **CO3**

SECTION – C (Understanding)

Answer any **ONE** Question: (1X 6= 6 Marks)

10 Discuss the methods of excreta disposal in rural areas.   **CO2**

11 Briefly explain the causative organism and preventive measures of Poliomyelitis.   **CO3**

SECTION – D (Applying)

Answer any **ONE** Question: (1X 10= 10 Marks)

12 Explain the physiological role of carbohydrate, protein and fat.   **CO1**

13 Discuss the various sets involved in sewage water treatment.   **CO2**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
DEPARTMENT OF ZOOLOGY

Course Code:	09AT01	Programme:	B.Sc.	CIA:	I
Date:	06.10.2021	Major:	Chemistry / Botany	Semester:	III
Duration:	2 Hours	Year:	II	Max.Marks:	50
Course Title:	ANIMAL ORGANISATION				

SECTION – A (Remembering)

Answer **ALL** the Questions: **(10 X 1 = 10 Marks)**

1 The mode of respiration in pigeon is____ **CO2**
  a) Aquatic   b) Pulmonary   c) Anaerobic   d) none

2 How many pairs of spiracles present in the respiratory system of cockroach? **CO2**
  a) 10   b) 5   c) 20   d) 2

3 In amoeba the respiration is carried out by _____ **CO2**
  a) Gills   b) Pseudopodia   c) Spiracles   d) Contractile Vacuole

4 In rabbits fertilization takes place within **CO5**
  a) Vagina   b) Placenta   c) Fallopian tube   d) Ovary

5 Female gonads are called **CO5**
  a) Ovaries   b) Ovules   c) Testes   d) Sperms

6 The term bionomial nomenclature was proposed by **CO1**
  a) Hildebrand   b) Linnaeus   c) Hyman   d) Young

7 The animal possessing a true coelom is called **CO1**
  a) Co-coelomic epithelum b) Coelomata   c) Body wall   d) Pseudocoelomocytes

8 The assembling of animals into groups based on their similarity is known as **CO1**
  a) Anatomy   b) Morphology   c) Classification   d) Palaeontology

9 The science of classification of species is called **CO1**
  a) Toxonomy   b) Animal kingdom   c) Sub-kingdom   d) Evolution

10 The cavity located between the body wall and the alimentary canal is called **CO1**
  a) Symmetry   b) Coelom   c) Tissue   d) Organ

SECTION – B (Remembering)

Answer any **FIVE** Questions: **(5 X 2 = 10 Marks)**

11 What is Ingestion? **CO2**
12 Comment on double respiration. **CO2**
13 Define sexual dimorphism. **CO5**
14 Comment on eucoelom. **CO1**
15 What do you meant by bilateral symmetry? **CO1**
16 Write a short note on holozoic nutrition. **CO1**
17 Mention few functions of contractile vacuoles. **CO1**

SECTION – C (Understanding)

Answer any **THREE** Questions: **(3 X 6= 18 Marks)**

18 Describe the holozoic nutrition with suitable example. **CO2**
19 Explain the respiratory system of cockroach. **CO2**
20 Sketch and comment on female reproductive system of rabbit. **CO5**
21 Describe briefly the general characters of protozoa. **CO1**
22 Write a short note about the advantages of nomenclature **CO1**

SECTION – D (Applying)

Answer any **ONE** Question: **(1X 12= 12 Marks)**

23 Draw the labelled structure of respiratory system of pigeon and comment on it. **CO2**
24 Explain in detail the principles taxonomy **CO1**

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DEPARTMENT OF ZOOLOGY

Course Code:	09CT51	Programme:	B.Sc.,	CIA:	I
Date:	15.09.2021	Major:	Zoology	Semester:	V
Duration:	2 Hours	Year:	III	Max. Marks:	50
Course Title:	BIOCHEMISTRY AND BIOPHYSICS				

SECTION – A (Remembering)

Answer **ALL** the Questions: (10 X 1 = 10 Marks)

1 The pH of the human blood is   **CO1**
   a. 6.0   b. 6.4   c. 7.0   d. 7.4

2 The molecular formula for disaccharide is   **CO1**
   a. $C_{10}H_{19}O_6$ b. $C_{12}H_{12}O_7$ c. $C_{11}H_{17}O_8$ d. $C_{12}H_{22}O_{11}$

3 Ammonium hydroxide is dissociated into   **CO1**
   a. $NH4^+$ and OH^- b. H^+ and Cl^- c. H^+ and A^- d. Na^+
   and OH^-

4 Coenzyme functions in association with a   **CO2**
   a. Vitamin   b. Protein   c. Apo enzyme   d. Holoenzyme

5 Active site of an enzyme is formed of   **CO2**
   a. Amino group of some amino acids   b. Carboxyl groups of specific amino acids
   c. –HS bonds of amino acids   d. R-groups of selected amino acid

6 Induced fit theory of enzyme action was given by   **CO2**
   a. Kuhne   b. Buchner   c. Fishcer   d. Koshland

7 The colloidal particles are capable of scattering light and this phenomenon is called   **CO5**
   a. Osmosis   b. Tyndall effect   c. Brownian movement   d. Surface tension

8 Brownian movement was first observed by   **CO5**
   a. Tyndall   b. Robert Brown   c. De Robertis   d. Schwann

9 Which of the following are not energy rich compounds?   **CO5**
   a. AMP   b. ATP   c. ADP   d. Phosphocreatine

10 The change of energy content of a system is called   **CO5**
   a. Efficiency   b. Effector   c. Enthalpy   d. Entropy

SECTION – B (Remembering)

Answer any **FIVE** Questions: (5 X 2 = 10 Marks)

11 Distinguish between acidity and alkalinity   **CO1**
12 Define buffers   **CO1**
13 Comment on electrolytes   **CO1**
14 What are isoenzymes?   **CO2**
15 Define co enzyme   **CO2**
16 What is bioelectricity?   **CO5**
17 What is Brownian movement?   **CO5**

SECTION – C (Understanding)

Answer any **THREE** Questions: (3 X 6= 18 Marks)

18 Enlist and explain the classification of carbohydrates   **CO1**
19 Briefly explain about cholesterol and its biological significance   **CO2**
20 Classify enzymes with examples.   **CO2**
21 State and explain first law of thermodynamics   **CO5**
22 Discuss surface tension with examples   **CO5**

SECTION – D (Applying)

Answer any **ONE** Question: (1X 12= 12 Marks)

23 Elucidate the factors affecting enzyme action.   **CO2**
24 Define colloids. Explain its general properties in detail.   **CO5**

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
DEPARTMENT OF ZOOLOGY

Course Code:	09CT52	Programme:	B.Sc	CIA:	I
Date:	16.09.2021	Major:	Zoology	Semester:	V
Duration:	2 Hours	Year:	III	Max.Marks:	50
Course Title:	**BIOTECHNOLOGY**				

SECTION – A (Remembering)

Answer **ALL** the Questions: (10 X 1 = 10 Marks)

1 The IPR is protected by **CO1**
   a. Patents   b. Copyright   c. trade Mark   d. All of these

2 Which one of the following is first artificial cloning vector? **CO1**
   a. P^{UC} vector   b. $P^{ACYC184}$ c. P^{BR322} d. P^{UC19}

3 Which plasmid is inducing tumor in plants? **CO1**
   a. Ti- Plasmid   b. *E. Coli*   c. Plasmid   d. Phagemids

4 *Thermus aquaticus* is the source of **CO3**
   a. Vent polymerase   b. Primary enzyme   c. Taq polymerase   d. Primase enzyme

5 The technique used to identify a gene product is **CO3**
   a. Western blotting   b. Plaque blotting   c. Dot blotting   d. Southern blotting

6 Microarray chips are made up of **CO3**
   a. Silicon   b. Glass   c. Gold   d. Both a and b

7 What are the types of microarray technology? **CO3**
   a. cDNA based microarray   b. Protein based microarray   c. Oligonucleotide based microarray d. Both a and c

8 The first crop plant genomes sequenced **CO4**
   a) Maize   b) Wheat   c) Ric   d) Barley

9 Which enzyme is useful in genetic engineering? **CO4**
   a) DNA Ligase   b) Amylase   c) Lipase   d) restriction endonuclease

10 The first crop plant genomes sequenced **CO4**
   a) Maize   b) Wheat   c) Rice   d) Barley

SECTION – B (Remembering)

Answer any **FIVE** Questions: (5 X 2 = 10 Marks)

11 Define the term geographical indication of goods. **CO1**
12 What are shuttle and expression vectors? **CO1**
13 What you meant by molecular scissors and molecular paste. **CO3**
14 Expand RFLP and RAPD. **CO3**
15 Write a short comment on molecular probe **CO3**
16 What is molecular farming? **CO4**
17 Mention the importance of *Bt* toxin gene **CO4**

SECTION – C (Understanding)

Answer any **THREE** Questions: (3 X 6= 18 Marks)

18 Write a short note on IPR and its importance. **CO1**
19 Discuss briefly the structure and applications of the vector PBR^{322}. **CO3**
20 Write an account on polymerase chain reaction and its application. **CO3**
21 Give a short note about tissue plasminogen activator (tPA) **CO4**
22 Write a note on the following: (i) Blood factor VIII (ii) Erythropoietin (EPO) **CO4**

SECTION – D (Applying)

Answer any **ONE** Question: (1X 12= 12 Marks)

23 Write a detailed account on structure, properties and functions of various restriction endonucleases and its applications. **CO1**
24 Give a detailed account on transgenic animals with examples. **CO4**

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
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Course Code:	09CT53	Programme:	B.Sc.,	CIA:	I
Date:	17.09.2021	Major:	Zoology	Semester:	V
Duration:	2 Hours	Year:	III	Max.Marks:	50
Course Title:	MICROBIOLOGY AND IMMUNOLOGY				

SECTION – A (Remembering)

Answer **ALL** the Questions: **(10 X 1 = 10 Marks)**

1 Pasteurization was introduced by   CO1
   a) Louis Pasteur   b) Koch   c) Holmes   d) Redi
2 The body of fungus is known as   CO1
   a) Thallus   b) Mycelium   c) Conidium   d) Hypha
3 Viral DNA is transcribed into   CO1
   a) rRNA   b)mRNA   c)tRNA   d)both a and b
4 Botulism is caused by   CO2
   a) Clostridium   b) Staphylococcus   c) Escherichia   d)Salmonella
5 _____ was the father of canning   CO2
   a) Aristotle   b) Nicholas Appert   c) Fleming   d) Hansen
6 Which of the following causes the spoilage of fish?   CO2
   a) Flavobacterium   b) Torula   c)Serratia   d)Erwiniasp
7 The name antibody was coined by   CO4
   a) Von Behring   b) Jules Bordet   c) Stewart Douglass   d) Koch
8 B Cells mature in   CO4
   a) Spleen   b) Thymus   c) Bone marrow   d) Lymph node
9 Abundant immunoglobulin among the following is   CO4
   a) IgE   b) IgA   c) IgG   d) IgM
10 Tissue fluid in the lymphatic system is called _____.   CO4
   a) plasma   b) hemoplasma   c) Ringer's solution   d) lymph

SECTION – B (Remembering)

Answer any **FIVE**Questions: **(5 X 2 = 10 Marks)**

11 Comment Koch's postulates.   CO1
12 What is lyophilization?   CO1
13 What is culture media?   CO1
14 Mention any two symbiotic nitrogen fixing bacteria.   CO2
15 What is innate immunity?   CO4
16 Enlist the layered defense of immune system.   CO4
17 Comment on MALT.   CO4

SECTION – C (Understanding)

Answer any **THREE**Questions: **(3 X 6= 18 Marks)**

18 Describe briefly the cultural characteristics of bacteria.   CO1
19 Discuss the reproduction in bacteria.   CO1
20 Write about fermented food.   CO2
21 Give a brief account on physical factors of innate immunity.   CO4
22 Describe the structure of primary lymphoid organs with labelled diagram.   CO4

SECTION – D (Applying)

Answer any **ONE** Question: **(1X 12= 12 Marks)**

23 Analyse in detail the physical and chemical methods of food preservation.   CO2
24 Give a detailed account on vaccine and tabulate immunization schedule.   CO4

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	VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234				
	DEPARTMENT OF ZOOLOGY				
	Course Code:	09EP51	**Programme:** B.Sc.,	**CIA:**	I
	Date:	18.09.2021	**Major:** Zoology	**Semester:**	V
	Duration:	2 Hours	**Year:** III	**Max.Marks:**	50
	Course Title:	**BIOSTATISTICS, COMPUTER APPLICATIONS & BIOINFORMATICS**			

SECTION – A (Remembering)

Answer **ALL** the Questions: **(10 X 1 = 10 Marks)**

1 Data obtained by the investigator from personal experimental studies is called **CO1**
a. primary data   b. arrayed data   c. chronological data   d. simple data

2 Percentage frequency distribution is represented by **CO1**
a. frequency polygon b. Ogive representation c. pie diagram   d. frequency table

3 Continuous variable is represented by **CO1**
a. histogram   b. line diagram   c. bar diagram   d. pie chart

4 The difference between the largest value and smallest value of a series is **CO2**
a. Q.D   b. Range   c. S.D   d. M.D

5 Mode is **CO2**
a. most frequent value b. least frequent value   c. middle most value d. All

6 RAM' stands for **CO4**
a. Random Access Memory   b. Read Access Memory   c. Read Arithmetic Memory
d. Random Arithmetic Memory

7 Which shortcut makes selected text Italic? **CO4**
a. Ctrl + I   b. Ctrl + A   c. Ctrl + S   d. Ctrl + V

8 Which one is the spreadsheet application that comes with MS Office software group? **CO4**
a. MS Word   b. MS Excel   c. MS PowerPoint   d. MS Access

9 Which key can be used to view Slide show? **CO4**
a. F5   b. F2   c. F7   d. F9

10 In conversion of Decimal to binary the decimal 43 is equal to the binary **CO4**
a. 101011   b. 101010   c.001011   d.001010

SECTION – B (Remembering)

Answer any **FIVE** Questions: **(5 X 2 = 10 Marks)**

11 What is data? **CO1**
12 Define four and cross method **CO1**
13 List out parts of a table **CO1**
14 Find out Median: 3, 4, 7, 2, 9, 10, 11, 12 **CO2**
15 What are the components of MS word title bar? **CO4**
16 Mention two significances of super computers **CO4**
17 Write down the short cut key for cut, copy and paste in MS office **CO4**

SECTION – C (Understanding)

Answer any **THREE** Questions: **(3 X 6= 18 Marks)**

18 Describe classification of data with illustrations **CO1**
19 Explain the following: i. Bar diagram   ii. Histogram **CO1**
20 Differentiate Mean and Median **CO2**
21 Discuss different types of computers, its special features. **CO4**
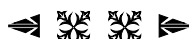**22** Explain the home page of MS Excel softwares **CO4**

SECTION – D (Applying)

Answer any **ONE** Question: **(1X 12= 12 Marks)**

23 Compute mean, median and mode for the given data which shows the weight of fishes in grams **CO2**

Length of fishes (cm)	0-5	5-10	10-15	15-20	20-25	25-30
No. of fishes	7	5	6	11	9	4

24 Give an account on unique features of MS word and powerpoint softwares **CO4**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234
DEPARTMENT OF ZOOLOGY

Course Code:	09SB51	**Programme:**	B.Sc	**CIA:**	I
Date:	13.09.2021	**Major:**	Zoology	**Semester:**	V
Duration:	1 Hour	**Year:**	III	**Max.Marks:**	25
Course Title:	SERICULTURE				

SECTION – A

Answer **ALL** the Questions: **(5 X 1 = 5 Marks)**

1 The first authentic reference to silk is found in the chronicle of the chou king of   **CO1**
a) China   b) India   c) Japan   d) Russia

2 The rearing of silkworm is called   **CO1**
a) Sericulture   b) Moriculture   c) Vermiculture   d) Aquaculture

3 The Powdery mildew diseases caused by   **CO2**
a) Bacteria   b) Fungus   c) Virus   d) Nematodes

4 The technique of joining of the parts of two plants is called   **CO2**
a) Grafting   b) Cutting   c) Transplantation   d) Layering

5 Which part of silk gland drawn out silk in the form of fine filament?   **CO3**
a) Spinneret   b) Prothoracic gland c) Scent glands   d) Lyonnet gland

SECTION – B

Answer any **TWO** Questions: **(2 X 2 = 4 Marks)**

6 Distinguish between mulberry and non-mulberry silkworm.   **CO1**
7 List out the supporting Organizations for sericulture.   **CO1**
8 What is meant by Pruning?   **CO2**
9 Give a short note on brushing.   **CO3**

SECTION – C

Answer any **ONE** Questions: **(1 X 6= 6 Marks)**

10 Describe the different methods of Irrigation.   **CO2**
11 Write about the importance of bed cleaning in silkworm rearing.   **CO3**

SECTION – D

Answer any **ONE** Question: **(1 X 10= 10 Marks)**

12 Write an essay on different methods of propagation in mulberry cultivation.   **CO2**
13 Discuss elaborately the life cycle of silkworm.   **CO3**

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