

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234

DEPARTMENT OF ZOOLOGY

Course Code: 09CT11	Programme: B.Sc.,	CIA: III Test
Date: 09.10.2019	Major: ZOOLOGY	Semester: I
Time: 2Hrs	Year: I	Maximum: 50 Marks
Course Title:	INVERTEBRATE-I	

ANSWER ALL QUESTIONS

SECTION – A

10X1=10 Marks

Multiple choice questions:

- Gemmules are helpful in (CO2)
a. Digestion b. Sexual reproduction c. Secretion of Spicules d. Survival in drought
- Spicules has three rays is known as (CO2)
a. Monaxon d. Diaxon c. Triaxon d. Tetraxon
- Most common method of reproduction of sponges is (CO2)
a. Binary fission b. Budding c. Multiple fission d. Sexual reproduction
- The growth of coral reefs requires an optimum temperature (°C) is (CO3)
a. 25 b 50 c. 100 d. 21
- The calcareous skeletons is present in (CO3)
a. Corals b. Scypha c. Volvox d. Euglena
- Find out the Metazoan animals (CO2)
a. Chordates b. Coelenterates c. Sponges d. All the above
- First formed bilateria is (CO2)
a. Hemichordate b. Platyhelminthes c. Mollusca d. Arthropoda
- Polyphyletic theory was proposed by (CO2)
a. Greenberg b. Haeckel c. Hanson d. Hadzi
- The egg of *Ascaris lumbricoides* (CO4)
a. Oval b. Spherical c. Round d. Circular
- Third moulting of *Ascaris* occurs in (CO4)
a. Liver b. Egg c. Lung d. Intestine

ANSWER ANY FIVE QUESTIONS

SECTION – B

5X2=10 Marks

Very short answer:

- What you meant by cormidium? (CO3)
- Write any two significance of Coral reef. (CO3)
- What is polymorphism? (CO3)
- Comment on Muller's larva. (CO4)
- State the Trochophore theory. (CO4)
- Write the Coelenterates characters resembles of Ctenophea. (CO3)
- What is Colloblast. (CO3)

ANSWER ANY THREE QUESTIONS SECTION – C

3X6=18 Marks

Short answer:

- Write an account on skeleton in sponges. (CO2)
- Give a brief note on polymorphism in Coelenterate. Explain with suitable example. (CO3)
- Give a short note on Coral reefs and its types. (CO3)
- Explain the general characters of phylum Coelenterate. (CO3)
- Give an account on origin of Metazoan. (CO4)

ANSWER ANY ONE QUESTIONS

SECTION – D

1x12=12 Marks

Long Answer:

- Write an essay on reproduction of sponges. (CO2)
- Elaborate the life cycle of *Ascaris lumbricoides*. (CO5)



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**DEPARTMENT OF ZOOLOGY**

Course Code: 09CT12	Programme: B.Sc.,	CIA: III Test
Date: 12.10.2019	Major: ZOOLOGY	Semester: I
Time: 2Hrs	Year: I	Maximum: 50 Marks
Course Title:	INVERTEBRATE-II	

SECTION – A Multiple choice questions

Answer All Questions:

10X1=10 Marks

- 1) Which is the connective link between Annelida and Arthropoda? (CO2)
 - a) Peripatus
 - b) Housefly
 - c) Limulus
 - d) Prawn
- 2) Which of the following is used to masticate the food in Prawn? (CO2)
 - a) I antennae
 - b) II antennae
 - c) Mandibles
 - d) I Maxillae
- 3) Which one is the last pair of abdominal appendages of prawn? (CO2)
 - a) I Maxillipedes
 - b) II Maxillipedes
 - c) III Maxillipedes
 - d) Uropods
- 4) In Pila, the development of young ones are resembles their parents is called (CO4)
 - a) Direct
 - b) indirect
 - c) both
 - d) none of these
- 5) Which of the following class of animal found the torsion movement, during larval development? (CO4)
 - a) Cephalopoda
 - b) Gastropoda
 - c) Scaphopoda
 - d) Pelecypoda
- 6) Animals with spiny skin are called: (CO5)
 - a) Helminthes
 - b) Moluscs
 - c) Arthropods
 - d) Echinoderms
- 7) Water vascular system (ambulacral system) is typically found in (CO5)
 - a) Hydra
 - b) Sponge
 - c) Earthworm
 - d) Star fish
- 8) Water vascular system helps in (CO5)
 - a) Locomotion
 - b) respiration
 - c) feeding
 - d) all of these
- 9) Pila belongs to the order___ (CO4)
 - a) Pectinibranchia
 - b) Protobranchiata
 - c) Decapoda
 - d) Octopoda
- 10) Which one is the amphibious animal of class Gastropoda? (CO4)
 - a) Pila
 - b) Chiton
 - c) Octopus
 - d) Sepia

SECTION – B Very short answer

Answer any Five Questions:

5X2=10 Marks

11. Comment on Triploblastic. (CO4)
12. Write a short note on Radula. (CO4)
13. What is Mantle? (CO4)
14. Give a short note on aboral surface. (CO4)
15. Define Peristome. (CO4)
16. What is pericardium? (CO2)
17. Define Branchiostegite. (CO2)

SECTION – C Short answer

Answer any Three Questions

3X6=18 Marks

18. Enlist the morphological characteristics of Star Fish with a neat diagram. (CO5)
19. Describe in brief the outline classification of phylum Mollusca. (CO4)
20. Discuss in brief the affinities of Echinodermata. (CO5)
21. Comment on affinities of Peripatus. (CO2)
22. Critically comment on torsion in gastropods. (CO4)

SECTION – D Long Answer

Answer any One Question:

1x12=12 Marks

23. Give a detailed account on appendages of Prawn. (CO2)
24. Write an essay on the general characters of Mollusca. (CO4)



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234

DEPARTMENT OF ZOOLOGY

Course Code: 09NE11	Programme: B.A., & B.Sc.,	CIA: I Test
Date: 10.10.2019		Semester: I
Time: 2Hrs	Year: I	Maximum: 50 Marks
Course Title:	Human Anatomy	

ANSWER ALL QUESTIONS

SECTION – A

(10X1=10 Marks)

Multiple choice questions:

1. Fibrin is produced by (CO1)
 a. WBC b. RBC c. Blood platelets d. Lymphocytes
2. What is the main function of hair? (CO1)
 a. Protection b. Circulation c. Digestion d. Respiration
3. The pigment found in human rods cell is (CO3)
 a. Retinene b. Melanin c. Photopsin d. Keratin
4. The P^H in intestine is (CO2)
 a. 2.5 to 5 b. 7 c. 6 d. 8 to 9
5. Fertilization occurs in human (CO5)
 a. Ovary b. Fallopian tube c. Vasa deferentia d. Vasa efferentia
6. Tactile structure is present in (CO4)
 a. Eye lens b. Heart c. Hair d. Liver
7. Hormone is a (CO2)
 a. Chemical messenger b. Excretory products c. Enzyme d. Glandular secretion
8. Rods and cones are found in (CO3)
 a. Iris b. Lens c. Retina d. Cornea
9. Organ of Corti is found in (CO4)
 a. Kidney b. Heart c. Nasal chamber d. Internal ear
10. Female sex hormones is (CO5)
 a. Progesterone b. Oestrogen c. Estradiol d. All the above

ANSWER ANY FIVE QUESTIONS

SECTION – B

(5X2=10 Marks)

Very short answer:

11. Expand FSH. (CO5)
12. What is pericardium? (CO3)
13. Draw and label the kidney. (CO4)
14. Enlist the hormones secreted by endocrine part of pancreas. (CO5)
15. Name the different types of WBC. (CO2)
16. What are alveoli? (CO2)
17. Mention the any two functions of testosterone. (CO1)

ANSWER ANY THREE QUESTIONS

SECTION – C

(3X6=18 Marks)

Short answer:

18. Write down the structure and functions of human skin. (CO1)
19. Draw and label the structure of alimentary canal in man. (CO2)
20. Narrate the structure of human eye. (CO3)
21. Describe the function of human growth hormone. (CO5)
22. Briefly discuss the structure of human heart. (CO4)

ANSWER ANY ONE QUESTIONS

SECTION – D

(1x12=12 Marks)

Long Answer:

23. Describe the structure of human ear with neat diagram. (CO4)
24. Write an essay on ABO blood groups. (CO3)

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**DEPARTMENT OF ZOOLOGY**

Course Code: 09CT31	Programme: B.Sc.,	CIA: III Test
Date: 0910.2019	Major: ZOOLOGY	Semester: III
Time: 2Hrs	Year: II	Maximum: 50 Marks
Course Title:	CELL BIOLOGY	

SECTION – A Multiple choice questions**Answer All Questions:****10X1=10 Marks**

- S Phase is characterized by **(CO4)**
 - Active synthesis of DNA
 - RNA synthesis
 - Active synthesis of proteins
 - Formation of organelles
- G₁ phase represents **(CO4)**
 - DNA synthesis
 - Transcription of mRNA
 - Enlargement of cytoplasmic inclusions
 - Translation
- The concept of operon was proposed by **(CO5)**
 - Griffith
 - Alexander Fleming
 - Jacob and Monad
 - Mendel
- RNA carrying genetic information is **(CO5)**
 - mRNA
 - tRNA
 - rRNA
 - All the above
- Gene expression refers to **(CO5)**
 - DNA - Protein - RNA
 - RNA – Protein – DNA
 - Protein – DNA – RNA
 - DNA – RNA – Protein
- Main function of lysosome is **(CO2)**
 - Secretion
 - Respiration
 - Extracellular digestion
 - Intracellular digestion
- Autophagic vacuoles digest **(CO2)**
 - Cell organelles
 - Solid particles
 - Fluid droplets
 - None
- In a double stranded DNA, two helices are held together by --- between complementary purine and pyrimidine residues. **(CO5)**
 - Hydrogen bonds
 - Hydrophobic interaction
 - Ionic bonds
 - van Der Waals force
- A nucleoside has **(CO5)**
 - Nitrogenous base + Sugar
 - Nitrogenous base + sugar + phosphate
 - Nitrogenous base + phosphate
 - Sugar + phosphate
- The RNA carrying anti codons and corresponding amino acid is **(CO5)**
 - mRNA
 - tRNA
 - rRNA
 - All the above

SECTION – B Very Short Answer**Answer any FIVE Questions:****5X2=10 Marks**

- Define Cell cycle **(CO4)**
- Comment on G₁ phase **(CO4)**
- Mention the significance of meiosis **(CO4)**
- State the Chargaff's rule. **(CO5)**
- Define nucleotide. **(CO5)**
- Discriminate smooth ER rough ER. **(CO2)**
- What are autophagosomes? **(CO2)**

SECTION – C Short Answer**Answer any THREE Questions:****3X6=18 Marks**

- Explain the Lac Operon hypothesis with neat diagram. **(CO5)**
- Enlist the role of ribosomes in protein synthesis. **(CO5)**
- Enumerate the functions of lysosomes. **(CO2)**
- Describe the molecular structure of DNA with a labelled sketch. **(CO5)**
- Give an account on the types of lysosomes. **(CO2)**

SECTION – C Long Answer**Answer any ONE Question:****1X12=12 Marks**

- Briefly discuss the first meiotic division with neat diagram. **(CO4)**
- Enlist the functions of endoplasmic reticulum. **(CO2)**



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**DEPARTMENT OF ZOOLOGY**

Course Code: 09CT32	Programme: B.Sc.,	CIA: III Test
Date: 12.10.2019	Major: ZOOLOGY	Semester: III
Time: 2Hrs	Year: II	Maximum: 50 Marks
Course Title: GENETICS		

SECTION – A Multiple choice questions

- Answer All Questions:** **10X1=10 Marks**
- Who coined the term linkage? **C03**
 - Correns
 - Mendel
 - Morgan
 - De Vries
 - Complete linkage has been reported in **C03**
 - Maize
 - Human female
 - Male *Drosophila*
 - Female *Drosophila*
 - Crossing over is more frequent in **C03**
 - males
 - females
 - both
 - None of these
 - Homologous chromosomes exchange corresponding segments between non-sister chromatids during **C03**
 - Linkage
 - Crossing over
 - Mutation
 - Epistasis
 - The graphic representation of the genes in a chromosome is **C03**
 - linkage
 - crossing over
 - Chromosome map
 - none
 - The advice given for the improvement of hereditary characters is called **C05**
 - Gene analysis
 - Genetic counselling
 - gene therapy
 - Syndromes
 - The accumulation of phenylalanine in the blood is called **C05**
 - Hyperaemia
 - Phenylketonuria
 - Polyuria
 - Polydipsia
 - The advice given for the improvement of hereditary characters is called **C05**
 - Gene analysis
 - Genetic counselling
 - gene therapy
 - Syndromes
 - Down's syndrome is a **C05**
 - 22-trisomy
 - 25-trisomy
 - 32-trisomy
 - 21-trisomy
 - Fraternal twins is also called **C05**
 - Twins
 - Siamese twins
 - Dizygotic twins
 - Identical twins

SECTION – B Very Short Answer

- Answer any FIVE Questions:** **5X2=10 Marks**
- What is coupling? **C03**
 - Comment on crossing over **C03**
 - Define Cis arrangement **C03**
 - What is genetic counseling? **C05**
 - Define inborn errors of metabolism **C05**
 - Compare the positive and negative eugenics **C05**
 - Comment on albinism **C05**

SECTION – C Short Answer

- Answer any THREE Questions:** **3X6=18 Marks**
- Describe the mechanism of crossing over and its significances **C03**
 - Distinguish between Mendelian and Polygenic inheritance **C02**
 - Describe the aim and purpose of genetic counseling **C05**
 - Discuss klinefelter's syndrome (22AA+XXY) and Turner's syndrome (22AA_{-X}) **C05**
 - Explain about eugenics and euphenics **C05**

SECTION – D Long Answer

- Answer any ONE Questions:** **1X12=12 Marks**
- Narrate the Stern's experiment on cytological proof for crossing over **C03**
 - Write an essay on extra chromosomal inheritance of shell coiling in *Limnaea* **C05**



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234

DEPARTMENT OF ZOOLOGY

Course Code: 09SB31	Programme: B.Sc.,	CIA: III Test
Date: 08.10.2019	Major: ZOOLOGY	Semester: III
Time: 1 Hr	Year: II	Maximum: 25 Marks
Course Title:	PUBLIC HEALTH AND HYGIENE	

ANSWER ALL QUESTIONS

SECTION – A

5X1=5 Marks

Multiple choice questions:

1. National Tuberculosis Institute is located in (CO5)
a. Chennai b. Bangalore c. Mumbai d. Delhi
2. Chikungunya fever is a (CO4)
a. Bacterial illness b. Viral illness c. Protozoan illness d. Fungi illness
3. Physical hazards is a (CO4)
a. Noise b. Light c. Vibration d. All of these
4. _____ is a central nervous stimulant (CO5)
A. Cocaine b. Cannabis c. barbiturates d. Heroin
5. ____ is the providing of O₂ to casualties who suffer from conditions resulting in hypoxia
a. Mental health first aid b. Oxygen first aid c. Marine first aid d. CO₂first aid (CO5)

ANSWER ANY TWO QUESTIONS

SECTION – B

2X2=4 Marks

Very short answer:

6. What is alcoholism? (CO4)
7. Comment on dressing? (CO5)
8. What is first aid? (CO5)
9. Enlist the any two health programme in India. (CO5)

ANSWER ANY ONE QUESTIONS

SECTION – C

1X6=6 Marks

Short answer:

10. Highlight the role NGOs in public health education. (CO5)
11. Comment on Drug dependence. (CO4)

ANSWER ANY ONE QUESTIONS

SECTION – D

1X10 Marks

Long Answer:

12. Give a detailed account on National Leprosy Eradication Programme in India. (CO5)
13. Explain the different types of occupational health hazards. (CO4)



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**DEPARTMENT OF ZOOLOGY**

Course Code: 09AT01	Programme: B.Sc.,	CIA: III Test
Date: 14.10.2019	Major: CHEMISTRY / BOTANY	Semester: III
Time: 2Hrs	Year: II	Maximum: 50 Marks
Course Title:	ANIMAL ORGANIZATION	

SECTION – A Multiple choice questions

Answer All Questions:

10X1=10 Marks

- In the excretory system of earthworm nephrostomes are the part of (CO5)
a) Meganephridia b) micronephridia c) Pharyngeal nephridia d) none of these
- The right kidney is slightly lower than the left because of the presence of (CO5)
a) Pancreas b) Stomach c) Heart d) Liver
- In rabbits fertilization takes place within (CO5)
a) Vagina b) Placenta c) Fallopian tube d) Ovary
- Female gonads are called (CO5)
a) Ovaries b) Ovules c) Testes d) Sperms
- The Acidity of sperms is neutralized by (CO5)
a) Testis b) Epididymis c) Vas deferens d) Prostate gland
- The heart of calotes is _____ in shape (CO3)
a) Round b) Hexagonal c) Triangular d) Square
- The heart of calotes is covered by a membrane called _____ (CO3)
a) Plasma membrane b) Pericardium membrane c) Interauricular septum d) Pericardial fluid
- The sol-gel theory of amoeba was proposed by (CO3)
a) Dellinger b) Jennings c) Berthold d) Hyman
- The longitudinal muscle of earthworm is lined by (CO3)
a) Coelomic epithelium b) Visceral peritoneum c) Parietal layer d) Septa
- The muscles used for flight are called _____ (CO3)
a) Pectoralis major muscle b) Flapping c) Flight muscle d) Coraco brachialis longus

SECTION – B Very short answer

Answer any Five Questions:

5X2=10 Marks

- Write a short note on Lobopodia. (CO3)
- State the sol-gel theory of amoeboid locomotion. Mention its significance. (CO3)
- What are flight muscles? (CO3)
- Mention any two functions of longitudinal muscle in earthworm. (CO3)
- Give a short note on dialysis. (CO5)
- List out the glands present in the male reproductive system. (CO5)
- Comment on Urine. (CO5)

SECTION – C Short answer

Answer any Three Questions

3X6=18 Marks

- Mention the few functions of right systemic aorta in Calotes. (CO3)
- State the surface-tension theory of amoeboid locomotion. Mention its importance. (CO3)
- Describe in brief the flight mechanism in birds. (CO3)
- Describe the excretory system of earthworm with labelled diagram. (CO5)
- Sketch and comment on structure of nephron. (CO5)

SECTION – D Long Answer

Answer any One Question:

1x12=12 Marks

- Explain in detail the circulatory system of Calotes with a neat diagram. (CO3)
- Write an essay on male and female reproductive system of rabbit with neat sketch (CO5)



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**DEPARTMENT OF ZOOLOGY**

Course Code: 09CT51	Programme: B.Sc.,	CIA: III Test
Date: 10.10.2019	Major: ZOOLOGY	Semester: V
Time: 2Hrs	Year: III	Maximum: 50 Marks
Course Title:	BIOCHEMISTRY AND BIOPHYSICS	

SECTION – A Multiple choice questions**Answer All Questions:****10X1=10 Marks**

- _____ introduced the term electroencephalogram.
a) Adria b) Mathews c) Hill d) Hans Berger
- The combustion of glycogen and other food stores is
a) Anabolic reactions b) Endothermic and exothermic reactions
c) Reversible process d) Exothermic reactions
- _____ is the study of general principles which relate to transfer of energy from one form to another.
a) Bioenergetics b) Adsorption c) Hydrotrophy d) Thermodynamics
- The ultimate aim of any metabolism is its complete oxidation to form
a) CO₂ b) H₂O c) NH₃ d) Both a and b.
- The biological oxidation, oxidation is considered as removal of
a) H₂O b) CO₂ c) Electrons d) All
- The main types of enzyme involved in biological oxidation is
a) Oxidases b) Dehydrogenases c) Transferases d) Both a and b
- The respiratory decomposition of fatty acids is known as
a) Biological oxidation b) Beta oxidation c) Oxidative phosphorylation d) Hydrolysis
- All the enzymes required for beta oxidation occurred in the
a) Cytoplasm b) Nucleus c) Ribosome d) Mitochondria
- The formation of urea, mainly in the liver, is by:
a) Kreb's cycle b) Glyoxylate cycle c) Ornithine cycle d) None of these
- Which of the following general enzymatic reactions are not shown in amino acid metabolism?
a) Deamination b) Transamination c) Decarboxylation d) Glucose formation

SECTION – B Very short answer**Answer any Five Questions:****5X2=10 Marks**

- Define enthalpy.
- State first law of thermodynamics.
- What do you mean by spike potential?
- Define buffers.
- Define oxidative phosphorylation.
- What is deamination?
- Define transamination.

SECTION – C Short answer**Answer any Three Questions****3X6=18 Marks**

- Deduce Henderson-Hasselbalch equation.
- Give a brief account on adsorption.
- Describe the components of respiratory chain and discuss the oxidation of NADH.
- Write an account of the high energy compounds in metabolism.
- Explain the structure of Protein.

SECTION – D Long Answer**Answer any One Question:****1x12=12 Marks**

- Describe the general properties of colloids.
- Narrate the production of ATP and energy budget in the metabolism of major nutrients.



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**DEPARTMENT OF ZOOLOGY**

Course Code: 09CT52	Programme: B.Sc.,	CIA: III Test
Date: 11.10.2019	Major: ZOOLOGY	Semester: V
Time: 2Hrs	Year: III	Maximum: 50 Marks
Course Title:	BIO TECHNOLOGY	

ANSWER ALL QUESTIONS**SECTION – A****10X1=10 Marks**

- Colony hybridization method was devised by
a. Grunstein&Hogness b. Black man c. Watson d. Davis and Raveer
- The best example of Antigen-Antibody reaction is
a. Immunochemical methods b. Chemical methods c. Hormonal methods d. Cellular reaction
- Molecules or carrier particles that utilized to transfer gene to somatic cells, known as:
a) Plasmid b) Probe c) Vector d) RNA fragment
- During electrophoresis denaturation of the double stranded DNA is brought about by
a) Treatment with alkali b) Application of current c) Treatment with EtBr d) Application of heat
- Process of replacing defective genes with effective genes is known as
a) Transgenic fusion b) Transgenic budding c) Transgenic injection d) Gene therapy
- Technique of SCP is introduced by
a) Gregor Mendel b) Louis Pasteur c) Scrimshaw d) Ian Wilmot
- Mushrooms are:
a) Saprophytic fungus b) Autotrophic Algae c) Heterotrophic fungus d) None of the above
- Azolla as biofertilizer, increase the yield of rice fields by
a) 10% b) 20% c) 30% d) 50%
- Which one of the following is called green manure/ io fertilizers?
a) Sasbania b) Rice c) Oat d) Maize
- Desired improve varieties of economically useful crop are raised by
a) Migration b) Biofertilizer c) Hybridization d) Natural Selection

ANSWER ANY FIVE QUESTIONS**SECTION – B****5X2=10 Marks****Very short answer:**

- What is cDNA library?
- Define screening of recombinants.
- Comment on Single cell Protein (SCP)
- What is Trangenesis?
- Define Animal Bioreactors.
- Define Composting.
- What is bioremediation?

ANSWER ANY THREE QUESTIONS**SECTION – C****3X6=18 Marks****Short answer:**

- Write a short note on Xenobiotics.
- Write a brief account on ore leaching.
- Give a short note on Biomiming?
- Briefly describe the Sanger's method of DNA sequencing.
- What is Biogas? Discuss its production and their limitations.
- Discuss the following:
i. tPA ii. Erythropoietin

ANSWER ANY ONE QUESTION**SECTION – D****1 x 12=12 Marks****Long Answer:**

- Dolly is the transgenic clone - Justify
- Briefly explain the gene transfer(rDNA into bacterial cells) methods.



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**DEPARTMENT OF ZOOLOGY**

Course Code: 09EP51	Programme: B.Sc.,	CIA: III Test
Date: 12.10.2019	Major: ZOOLOGY	Semester: V
Time: 2Hrs	Year: III	Maximum: 50 Marks
Course Title:	BIostatistics, Computer Application and Bioinformatics	

SECTION – A Multiple choice questions**Answer All Questions:****10X1=10 Marks**

- Chi-square test is
 - Test of significance of overall deviation square
 - Student test
 - Used to test the significance difference between two means
 - All of these
- Chi-square test has developed by
 - W.S. Gossett
 - Karl Pearson
 - A.R. Fisher
 - Pascal
- The test to be applied when the numbers of observations are less than 30 is said to be
 - Z-test
 - t-test
 - F-test
 - Chi-square test
- In a throw of coin what is the probability of getting head.
 - 1
 - 2
 - 1/2
 - 0
- The square of the standard deviation is
 - Variance
 - Range
 - Mean
 - Mode
- The occurrence of two or more simple events simultaneously is
 - simple event
 - compound event
 - independent event
 - dependent event
- The probability is determined before the event takes place is
 - apriori probability
 - aposteriori probability
 - Both a and b
 - none
- Comparison of nucleotide with the nucleotide sequence is known as
 - BLAST_p
 - BLAST_x
 - BLAST_N
 - tBLAST_x
- The branches of a Phylogenetic tree is known as
 - Root
 - Clade
 - Scale
 - Topology
- The tool used to identify highly conserved or similarity region within a set of related sequence is
 - BLAST
 - FASTA
 - multiple sequence alignment
 - Parsimony

SECTION – B Very Short Answer**Answer any FIVE Questions:****5X2=10 Marks**

- What is measures of dispersion?
- List out the merits of mean deviation
- What is standard deviation?
- Differentiate Global and local alignment
- What are ORF and URF?
- Name the retrieval systems of NCBI, EMBL and DDBJ databases
- Write short notes on rooted and unrooted phylogenetic trees

SECTION – C Short Answer**Answer any THREE Questions:****3X6=18 Marks**

- Write an account on student t test
- Describe chi-square analysis
- In a dihybrid experiment in F₂ generation the following plants appear yellow round 920, yellow wrinkled 280, green round 320 and green wrinkled 80. With the help of χ^2 test, verify that 9:3:3:1 ratio is followed.
- Describe the home page of NCBI.
- Give an account on Proteomic tools available with EXPACY

SECTION – D Long Answer**Answer any TWO Questions:****1X12=12 Marks**

- Compute standard deviation and coefficient of variation for the following data which shows the weight of fishes in grams

Weight of fishes (g)	0-10	10-20	20-30	30-40	40-50
No. of fishes	4	3	9	6	5

- Explain various types of BLAST and their applications.



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234

DEPARTMENT OF ZOOLOGY

Course Code: 09SB51	Programme: B.Sc.,	CIA: III Test
Date: 08.10.2019	Major: ZOOLOGY	Semester: V
Time: 1Hr	Year: III	Maximum: 25 Marks
Course Title:	SERICULTURE	

SECTION – A Multiple choice questions

Answer all questions

1 x 5=5 marks

1. Raksha Rekha is a replant for
a) Ant b) Uzi fly c) House fly d) Rat
2. The unwinding of silk thread from the cocoon is called
a) Silk reeling b) Pruning c) Mulching d) Irrigation
3. The Powdery mildew diseases caused by
a) Bacteria b) Fungus c) Virus d) Nematodes
4. Which one is caused muscardine diseases to silkworm?
a) Virus b) bacteria c) Fungi d) Protozoan
5. The dead pupa is found sticking to the inner shell of the cocoon is called
a) Mute cocoon b) Rust cocoon c) Premature cocoon d) Fragile cocoon

SECTION – B Very Short Answer

Answer any two questions:

2x2 = 4 marks

6. Enumerate the advantages and disadvantages of chandrika?
7. Give any two methods physical disinfection.
8. What is spacing?
9. State the significance of stifling.

SECTION – C Short Answer

Answer any one question:

1x6 = 6 marks

10. List out the physical characteristics features of cocoons.
11. Discuss the different types of defective cocoons.

SECTION – D Long Answer

Answer any one question:

1x10 = 10 marks

12. Write an essay on rearing appliances used in sericulture.
13. Describe the methods of rearing operations.

