



**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST**  
(Autonomous & Residential)  
[Affiliated to Madurai Kamaraj University]

**B.Sc. Zoology** Degree (Semester) Examinations, November 2019  
Part – III : Core Subject : First Semester : Paper – I

**INVERTEBRATES – I**  
Under CBCS – Credit 4

Time: **3 Hours**

Max. Marks: **75**

**SECTION – A**

**Answer ALL Questions :**

**(10 × 1 = 10)**

1. The father of taxonomy is
  - a) Darwin
  - b) Edward Jenner
  - c) Linnaeus
  - d) Fleming
2. Which of the following synthetic drug cure malaria?
  - a) Quinine
  - b) Daraprim
  - c) Chloroquine
  - d) All of these
3. Sponges are primitive multicellular animals having
  - a) Cellular grade of organization where there are no organs and systems
  - b) Tissue grade of organization where there are organs and systems in the body
  - c) Both a & b
  - d) None of these patterns
4. Most of the sponges are
  - a) Solitary
  - b) Colonial
  - c) Freshwater forms
  - d) Cold water inhabitants
5. The term Coelenterata was coined by
  - a) Linnaeus
  - b) Clark
  - c) Grant
  - d) Leuckart
6. CaCO<sub>3</sub> is present in
  - a) Coral reefs
  - b) Earthworm
  - c) Leech
  - d) Insect

7. Protonephridia is a \_\_\_\_\_  
 a) Excretory system                      b) Digestive system  
 c) Circulatory system                      d) Blood suckers
8. Class Trematoda belongs to the Phylum  
 a) Platyhelminthes   b) Arthropoda   c) Mollusca   d) Annelida
9. The egg of *Ascaris lumbricoides*  
 a) Oval                      b) Spherical                      c) Round                      d) Circular
10. Sexual dimorphism is found in  
 a) *Hydra*                      b) Earthworm                      c) *Ascaris*                      d) *Fasciola*

**SECTION – B**

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

11. Define Trichocyst.  
 12. What is Myonemes?  
 13. List out the uses of gemmules.  
 14. Find out the functions of Cnidoblast.  
 15. What is Metagenesis?  
 16. Labelled structure of flame cells.  
 17. Define Acetabulum.

**SECTION – C**

**Answer ALL Questions :**                      **(5 × 5 = 25)**

18. a) Explain the external morphology of Paramecium.  
 (OR)  
 b) Classify the phylum Protozoa upto class level.

19. a) Write note on spicules of sponges.  
 (OR)  
 b) Explain the morphology of sycon type of sponge.
20. a) Summarize the affinities of Ctenophora.  
 (OR)  
 b) Explain the morphology of Obelia.
21. a) Explain the general characters of Platyhelminthes.  
 (OR)  
 b) Illustrate the origin of metazoan.
22. a) Demonstrate the morphology of *Ascaris*.  
 (OR)  
 b) List out the general characters of Aschelminthes.

**SECTION – D**

**Answer any THREE Questions :**                      **(3 × 10 = 30)**

23. Describe the etiology and life cycle of Plasmodium.  
 24. Discuss the types and functions of Canal system of sponges.  
 25. Distinguish the polymorphism in hydrozoa.  
 26. Elucidate the general morphology of *Fasciola hepatica*.  
 27. Enlist the parasitic adaptations in helminthes.

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**B.Sc. Zoology** Degree (Semester) Examinations, November 2019

Part – III : Core Subject : First Semester : Paper – II

**INVERTEBRATES – II**

Under CBCS – Credit 4

Time: **3** Hours

Max. Marks: **75**

**SECTION – A**

**Answer ALL Questions :**

**(10 × 1 = 10)**

1. In annelids, which group do not contain parapodia and setae?  
a) Oligochaeta    b) Polychaeta    c) Hirudinea    d) Echiuroidea
2. The linear arrangement of segments one behind the other is called  
a) Coelom    b) Metamerism    c) Symmetry    d) Organization
3. Which of the following is used to masticate the food in Prawn?  
a) I antennae    b) II antennae    c) Mandibles    d) I Maxillae
4. Which is the connective link between Annelida and Arthropoda?  
a) Peripatus    b) Housefly    c) Limulus    d) Prawn
5. Chemicals for insect communication are called  
a) Ecdysones    b) Protosones    c) Pheromones    d) Deuterosomes
6. Starfishes are \_\_\_\_\_  
a) Herbivorous    b) Carnivorous    c) Filter feeder    d) Omnivorous
7. The coils of Pila shell are called  
a) Sinistral    b) Suture    c) Lip    d) Whorls
8. Ink glands are present in the class  
a) Cephalopoda    b) Gastropoda    c) Scaphopoda    d) Pelecypoda





8. Daily respiratory activity are controlled by
- a) Cerebrum
  - b) Medulla oblongata
  - c) Cerebellum
  - d) Diencephalon

9. The 'U' shaped portion in kidney is
- a) Medulla
  - b) Cortex
  - c) Henle's loop
  - d) Collecting tubule

10. The study of bone is called
- a) Phycology
  - b) Osteology
  - c) Mycology
  - d) Ecology

**SECTION – B**

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

- 11. What is medulla oblongata?
- 12. Expand: FSH and LH.
- 13. State the functions of testosterone.
- 14. Enlist the hormones secreted by endocrine part of pancreas.
- 15. What are alveoli?
- 16. Differentiate between exoskeleton and endoskeleton.
- 17. Name the different types of WBC.

**SECTION – C**

**Answer ALL Questions :** (3 × 9 = 27)

- 18. a) Write down the various functions of skin.

(OR)

- b) Explain the structure of human tooth.

- 19. a) Draw and label the structure of alimentary canal in man.

(OR)

- b) Describe the female reproductive system in human.

- 20. a) Briefly discuss the structure of human heart.

(OR)

- b) Narrate the structure of human eye.

**SECTION – D**

**Answer any TWO Questions :** (2 × 14 = 28)

- 21. What is pituitary gland? Explain the functions of growth hormone.
- 22. Describe the structure of human ear with neat diagram.
- 23. Write an essay on Karl Landsteiner blood groups.
- 24. Discuss the structure of human nephron with neat sketch.

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**CELL BIOLOGY**

Under CBCS – Credit 4

Time: **3** HoursMax. Marks: **75****SECTION – A****Answer ALL Questions :****(10 × 1 = 10)**

- Which one of the following is a basic stain?  
a) Eosin      b) Methyl green      c) Thionine      d) Aniline blue
- Disruption of cell membrane and release of subcellular components is called  
a) Chromatography      b) Mounting  
c) Homogenization      d) Embedding
- What is the percentage of lipids and proteins in the plasma membrane?  
a) 25 & 75      b) 75 & 25      c) 42 & 58      d) 65 & 75
- The lysosomes release enzymes outside of the cell is called  
a) Exocytosis      b) Endocytosis      c) Autolysis      d) Autophagy
- Krebs cycle begins with the reaction  
a) OAA + Acetyl CoA      b) Citric acid + Acetyl CoA  
c) OAA + Pyruvic acid      d) OAA + Citric acid
- Polysome is a chain of  
a) Oxysomes      b) Sphaerosomes      c) Ribosomes      d) Dictyosomes
- Nucleolus disappears during \_\_\_\_\_ of the cell division.  
a) Anaphase      b) Prophase      c) Metaphase      d) Telophase







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**B.Sc. Zoology** Degree (Semester) Examinations, November 2019

Part – III : Core Subject : Third Semester : Paper – II

**GENETICS**

Under CBCS – Credit 4

Time: **3 Hours**

Max. Marks: **75**

**SECTION – A**

**Answer ALL Questions :**

**(10 × 1 = 10)**

1. Unit of inheritance is called
  - a) Genotype
  - b) Phenotype
  - c) Gene
  - d) Chromosome
  
2. Mendel's experimental material was
  - a) *Pisum sativum*
  - b) *Lathyrus odoratus*
  - c) *Oryza sativa*
  - d) *Mirabilis jalapa*
  
3. An individual's ABO blood type is normally determined by:
  - a) Genetic inheritance and environmental influences during life
  - b) Environmental influences alone
  - c) The inheritance of 1 of 3 possible alleles (A, B, or O) from each parent
  - d) None
  
4. In determining the phenotype for the ABO blood system:
  - a) O is dominant over A
  - b) B is dominant over A
  - c) O is recessive
  - d) all of these
  
5. Linkage in maize was reported by
  - a) Bateson
  - b) Morgan
  - c) Hutchinson
  - d) Sinnott

6. Who coined the term linkage?  
 a) Correns      b) Mendel      c) Morgan      d) de Vries
7. The sex index of super male  
 a) 0.5      b) 0.67      c) 1      d) 0.33
8. The best example of sex linkage is  
 a) Haemophilia      b) Colour blindness  
 c) Both a & b      d) Barr body
9. The female sinistral snail is  
 a) dd      b) AA      c) DD      d) aa
10. Turner's syndrome is a  
 a) Sterile male      b) Sterile female  
 c) Fertile male      d) Fertile female

**SECTION – B**

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

11. Define back cross.
12. Mention about complementary gene.
13. What are multiple alleles? Give an example.
14. Distinguish between multiple alleles and polygenic traits.
15. Define crossing over and give its significance.
16. Comment on pedigree analysis.
17. Bringout the significance of Euthenics.

**SECTION – C**

**Answer ALL Questions :**      **(5 × 5 = 25)**

18. a) Given an account on Epistasis.  
 (OR)  
 b) Briefly write a note on Duplicate genes.
19. a) Define the Rh factor in blood groups and its significance in pregnancy.  
 (OR)  
 b) Give an account on Application of Rh blood groups.
20. a) Discuss about linkage and its significance.  
 (OR)  
 b) Briefly explain about the Crossing over and its significance.
21. a) Write a short note on Haemophilia.  
 (OR)  
 b) Enumerate the prevention of Haemolytic disease.
22. a) Explain the metabolic disease of Alkaptonuria.  
 (OR)  
 b) Write about role on pedigree analysis in Human genetics.

**SECTION – D**

**Answer any THREE Questions :**      **(3 × 10 = 30)**

23. Given an account on Pleiotrophism and penetrance.
24. Enumerate the mode of inheritance of Coat colour in Rabbit.
25. Elucidate about the Crossing over.
26. Discuss about inheritance Eye colour of Drosophila.
27. Write a detailed account on Kappa particles in *Paramecium*.

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**B.Sc. Zoology** Degree (Semester) Examinations, November 2019

Part – IV : Skill Based Subject : Third Semester : Paper – I

**PUBLIC HEALTH AND HYGIENE**

Under CBCS – Credit 2

Time: 2 Hours

Max. Marks: 75

**SECTION – A**

**Answer ALL Questions :**

**(10 × 1 = 10)**

1. The most important function of carbohydrate is
 

|                      |                    |
|----------------------|--------------------|
| a) Heart function    | b) Supply energy   |
| c) Tissues formation | d) Liver formation |
2. The pure calcium deficiency is
 

|                 |             |             |          |
|-----------------|-------------|-------------|----------|
| a) Osteoporosis | b) Molasses | c) Diabetic | d) Fever |
|-----------------|-------------|-------------|----------|
3. Fresh water is a
 

|                       |                           |
|-----------------------|---------------------------|
| a) Renewable resource | b) Non-renewable resource |
| c) Both a and b       | d) Artificial production  |
4. Municipal solid waste commonly known as
 

|          |            |               |          |
|----------|------------|---------------|----------|
| a) Trash | b) Garbage | c) Both a & b | d) Trial |
|----------|------------|---------------|----------|
5. Which is the protozoan parasite?
 

|                   |                       |                     |        |
|-------------------|-----------------------|---------------------|--------|
| a) <i>E. Coli</i> | b) <i>Pseudomonas</i> | c) <i>Entamoeba</i> | d) HIV |
|-------------------|-----------------------|---------------------|--------|
6. The female filariasis are
 

|                    |                   |
|--------------------|-------------------|
| a) Viviparous      | b) Ovovviparous   |
| c) Beneficial worm | d) Social animals |

7. Hypertension is also known as
- a) High blood pressure                      b) High fever  
c) Kidney failure                              d) Brain fever
8. Which one of the following disease occurs in excessive food intake?
- a) Obesity    b) Hypertension  
c) Heart attack                                      d) Stomach disorder
9. The aim of first aid is
- a) Preserve life                                      b) Prevent further harm  
c) Promote recovery                              d) All the above
10. Chikungunya fever is a
- a) Bacterial illness                              b) Viral illness  
c) Protozoan illness                              d) Fungi illness

### **SECTION – B**

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

11. What is diphtheria?
12. Expand : ISO.
13. Comment on dressing?
14. Name the seven elements of nutrition.
15. Enlist the water quality index?
16. Write down the symptoms of mumps.
17. What is alcoholism?

### **SECTION – C**

**Answer ALL Questions :**                      **(3 × 9 = 27)**

18. a) Briefly explain the physiological role of protein.  
**(OR)**  
b) Discuss the methods of excreta disposal in rural areas.
19. a) Explain the causative organism and preventive measures of Poliomyelitis.  
**(OR)**  
b) Comment on diabetes.
20. a) Highlight the role NGOs in public health education.  
**(OR)**  
b) “Dengue fever is a mosquito-borne tropical disease” – Discuss.

### **SECTION – D**

**Answer any TWO Questions :**                      **(2 × 14 = 28)**

21. Explain the various methods of sewage treatment.
22. Give a detailed account on National Leprosy Eradication Programme in India.
23. What is Vitamin? Describe the various Vitamin deficiency diseases.
24. “AIDS as a dreadful disease” – Justify.

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**B.Sc. (Chem. / Bot.)** Degree (Semester) Examinations, November 2019

Part – III : Allied Subject : Third Semester : Paper – I

**ANIMAL ORGANISATION**

Under CBCS – Credit 4

Time: **3** Hours

Max. Marks: **75**

**SECTION – A**

**Answer ALL Questions :**

**(10 × 1 = 10)**

1. Binomial nomenclature consists of \_\_\_\_\_
  - a) Genus and Species
  - b) Genus and Subspecies
  - c) Genus and Family
  - d) Species and Variety
2. What are the major differences between cilia and flagella?
  - a) Cilia are short compared to flagella
  - b) Flagella are less in number compared to cilia
  - c) Cilia are distributed through the cell surface
  - d) All of these
3. The mode of nutrition in amoeba is
  - a) Holophytic
  - b) Holozoic
  - c) Parasitic
  - d) Saprozoic
4. The process of double respiration is exhibited in \_\_\_\_\_
  - a) Mammals
  - b) Birds
  - c) Reptiles
  - d) Amphibians
5. Cyclosis found in
  - a) *Amoeba*
  - b) *Euglena*
  - c) *Paramecium*
  - d) *Plasmodium*
6. The heart of calotes is covered by a membrane called \_\_\_\_\_
  - a) Plasma membrane
  - b) Pericardium membrane
  - c) Interauricular septum
  - d) Pericardial fluid

7. Number of subpharyngeal ganglia in earthworm is  
 a) single      b) one pair      c) two pairs      d) three pairs
8. The rod cells of retina contain  
 a) Rhodopsin      b) Iodopsin      c) melanin      d) chromatophores
9. The right kidney is slightly lower than the left because of the presence of  
 a) Pancreas      b) Stomach      c) Heart      d) Liver
10. The female rabbit is  
 a) spontaneous ovulatory      b) seasonal ovulatory  
 c) induced ovulatory      d) natural ovulatory

**SECTION – B**

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

11. Define taxonomy.
12. Highlight the 3 basic types of symmetry.
13. What is Coelom?
14. Bring out the significance of gills in fish.
15. Mention about circulatory system of reptiles.
16. Comment on the function of the nervous system of a frog.
17. How did amoeba excrete?

**SECTION – C**

**Answer ALL Questions :**      **(5 × 5 = 25)**

18. a) Give brief account on Binomial Nomenclature.  
 (OR)  
 b) Explain types of symmetry seen in animals.
19. a) Explain about feeding and digestion in Amoeba.  
 (OR)  
 b) Describe the respiration system of cockroach.
20. a) Describe the blood vessels and their arrangement in the first thirteen segments of Earthworm.  
 (OR)  
 b) Write a brief note on flight mechanism in pigeon.
21. a) Write short notes on photoreceptor of man.  
 (OR)  
 b) Discuss the autonomic nervous system of frog.
22. a) Write a brief note on excretory system of earthworm.  
 (OR)  
 b) Explain about the excretion of frog.

**SECTION – D**

**Answer any THREE Questions :**      **(3 × 10 = 30)**

23. What is a Coelom? Mention types of Coelom with examples.
24. Write an essay for digestive system of frog.
25. Explain the circulatory system of *Calotes*.
26. Describe Structure and functions human ear with diagram.
27. Discuss about male reproductive system of rabbit.



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**B.Sc. Zoology** Degree (Semester) Examinations, November 2019

Part – III : Core Subject : Fifth Semester : Paper – I

**BIOCHEMISTRY AND BIOPHYSICS**

Under CBCS – Credit 5

Time: **3 Hours**

Max. Marks: **75**

**SECTION – A**

**Answer ALL Questions :**

**(10 × 1 = 10)**

- Ammonium hydroxide is dissociated into
  - $\text{NH}_4^+$  and  $\text{OH}^-$
  - $\text{H}^+$  and  $\text{Cl}^-$
  - $\text{H}^+$  and  $\text{A}^-$
  - $\text{Na}^+$  and  $\text{OH}^-$
- A protein molecule is linked to one another by
  - Peptide linkage
  - Hydrogen bond
  - Covalent bond
  - Van der Waal's forces
- The word-as added to the substrate name for enzyme naming is
  - Suffixed
  - Prefixed
  - Interpolated
  - Conjugated
- At high temperature, enzymes are
  - Killed
  - Denatured
  - Inactivated
  - Highly effective
- Glycolysis occurs in
  - Cytosol
  - Mitochondria
  - Golgi complex
  - Ribosomes
- The formation of urea, mainly in the liver, is by:
  - Kreb's cycle
  - Glyoxylate cycle
  - Ornithine cycle
  - None of these
- Biological oxidation is also known as
  - Tissue oxidation
  - Cellular respiration
  - Embden Meyerhoff pathway
  - Both a and b

8. Which of the following is considered as a universal currency of free energy?

- a) NADH      b) ADP      c) ATP      d) FAD

9. Colloids can

- a) scatter light    b) not scatter light    c) absorb heat    d) evolve heat

10. High energy phosphate bond in ATP is called

- a) Hydrogen bond                      b) Covalent Bond  
c) Ionic bond                              d) Pyrophosphate bond

### **SECTION – B**

**Answer any FIVE Questions :**

**(5 × 2 = 10)**

11. What is a strong acid?

12. Write about biological Buffer.

13. Comment on Acidosis.

14. Define Structural isomers.

15. Comment on unsaturated fatty acid.

16. Define  $\beta$ -oxidation.

17. What is transamination?

### **SECTION – C**

**Answer ALL Questions :**

**(5 × 5 = 25)**

18. a) Interpret the titration curves of 3 weak acids,  $\text{CH}_3\text{COOH}$ ,  $\text{H}_2\text{PO}_4^-$  and  $\text{NH}_4^+$ .

**(OR)**

b) Enlist any two buffers and their Biological importance.

19. a) Give the details about the nomenclature and classification of Enzymes.

**(OR)**

b) Discuss about classification of carbohydrates? Give one example.

20. a) Explain the details about TCA Cycle.

**(OR)**

b) Analyse the details of biosynthesis of glycerol.

21. a) Describe about the biologically important high energy compounds.

**(OR)**

b) Write the details about site of oxidative phosphorylation.

22. a) Enlist the types of colloidal solutions.

**(OR)**

b) Describe about the Laws of thermodynamics.

### **SECTION – D**

**Answer any THREE Questions :**

**(3 × 10 = 30)**

23. Describe about the Dissociation constant and write the  $\text{pK}_a$  of some common weak acids?

24. What Factors Influence Enzymatic Activity? Discuss.

25. Explain briefly about the Two Phases of Glycolysis?

26. What is diffusion? Describe about Membrane transport system.

27. Explain in details about bioelectricity.

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**SECTION – A**

**Answer ALL Questions :**

**(10 × 1 = 10)**

1. Sample size depends on
  - a) type of problem investigated
  - b) resource available
  - c) required precision
  - d) all of them
2. The basis of classification in the case of geographical classification is
  - a) locality
  - b) time
  - c) attribute
  - d) locality and time
3. Inclusive class intervals should be converted into exclusive class intervals before calculating
  - a) A.M
  - b) G.M
  - c) Median
  - d) A.M and G.M
4. Mode is
  - a) most frequent value
  - b) least frequent value
  - c) middle most value
  - d) none
5. The ratio between experimental and observed result is represented by
  - a) Theta value
  - b) Chi-square
  - c) Variance ratio
  - d) None of these
6. Outcomes of an experiment are classified as
  - a) logged events
  - b) exponential results
  - c) results
  - d) events
7. Which shortcut make selected text Italic?
  - a) Ctrl + I
  - b) Ctrl + A
  - c) Ctrl + S
  - d) Ctrl + V

8. The numeric location of the computer which is connected to the internet is known as  
 a) DNS – server b) BBS – System c) IP Address d) DSL System
9. Among the following which is not a genome database?  
 a) Human b) *C. elegans* c) Swiss – Prot d) Flybase
10. In pair wise sequence similarity search, the method that finds the best match of both sequence in their entity is  
 a) Global alignment b) Local alignment  
 c) Scoring alignment d) Matrix alignment

**SECTION – B**

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

11. Finite Population.  
 12. Polygon.  
 13. Arithmetic mean.  
 14. Correlation.  
 15. Chi-square test.  
 16. Integrated Circuit.  
 17. Pan Genomics.

**SECTION – C**

**Answer ALL Questions :** (5 × 5 = 25)

18. a) Write notes on the Advantages and disadvantages of Sampling.  
 (OR)  
 b) Analyze the sources of secondary data collection.
19. a) Describe about the Median.

(OR)

- b) Write notes on the measures of dispersion and explain the Properties of a good measure of Dispersion.
20. a) State the Theorems of Probability.  
 (OR)  
 b) Describe the population density (N).
21. a) Write a note on the Binary numeral system.  
 (OR)  
 b) List out and explain the output devices.
22. a) Describe about the Bioinformatics and its applications.  
 (OR)  
 b) Explain the mechanism of BLAST.

**SECTION – D**

**Answer any THREE Questions :** (3 × 10 = 30)

23. Write an essay on diagrammatic presentation of Bar diagram.
24. Find the Mean, Median, and mode from following data.  
 a) Find the mean : 6, 8, 11, 5, 2, 9, 7, 8  
 b) Find the Median : 11, 4, 9, 7, 10, 5, 6  
 c) Find the Mode : 2, 6, 3, 9, 5, 6, 2, 6
25. When a black rat (heterozygous) is crossed with another heterozygous black rat, 43 black, 15 cream and 22 albino offsprings are produced in the F<sub>2</sub> generation. Using chi-square test the genetic hypothesis 9:3:4 is consistent with the data.
26. Give an account of generations of computers.
27. Write a detailed notes on Proteomic tools.

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B.Sc. Zoology Degree (Semester) Examinations, November 2019

Part – IV : Skill Based Subject : Fifth Semester : Paper – I

**SERICULTURE**

Under CBCS – Credit 2

Time: 2 Hours

Max. Marks: 75

**SECTION – A**

**Answer ALL Questions :**

**(10 × 1 = 10)**

- The rearing of silkworm is called  
a) Sericulture    b) Moriculture    c) Vermiculture    d) Aquaculture
- The development of roots from the stem while it is attached to the mother plant.  
a) Grafting    b) Cutting    c) Transplantation    d) Layering
- The technique of joining of the parts of two plants is called  
a) Grafting    b) Cutting    c) Transplantation    d) Layering
- Name the method of removing of unwanted branches of the mulberry plants.  
a) Mulching    b) Pruning    c) Manuring    d) Training
- The Root rot disease of mulberry is caused by  
a) Bacteria    b) Fungus    c) Virus    d) Nematodes
- Which part of silk gland drawn out silk in the form of fine filament?  
a) Spinneret    b) Prothoracic gland  
c) Scent glands    d) Lyonnet gland
- Which is the optimum temperature for silkworm rearing?  
a) 24°C    b) 34°C    c) 44°C    d) 54°C
- Raksha Rekha is a replant for  
a) Ant    b) Uzi fly    c) House fly    d) Rat
- Which of the following is used for bed cleaning?  
a) Mountage    b) Ant well    c) Basket    d) Net

10. The unwinding of silk thread from the cocoon is called

- a) Silk reeling    b) Pruning    c) Mulching    d) Irrigation

**SECTION – B**

**Answer any FIVE Questions :**

**(5 × 2 = 10)**

- Expand and list out the functions of CSR&TI.
- What is mulching?
- Enumerate the advantages and disadvantages of chandrika?
- Give any two methods physical disinfection.
- What is spacing?
- State the significance of stifling.
- What is Brushing?

**SECTION – C**

**Answer ALL Questions :**

**(3 × 9 = 27)**

- a) State the significance of Silk Road. **(OR)**  
b) What is irrigation? Give its types.
- a) Explain the types of pruning and its advantages. **(OR)**  
b) Discuss the different types of defective cocoons.
- a) Describe the life cycle of Bombyx mori. **(OR)**  
b) List out the physical characteristics features of cocoons.

**SECTION – D**

**Answer any TWO Questions :**

**(2 × 14 = 28)**

- Give a detailed account on different methods of vegetative propagation in mulberry.
- Describe the fungal diseases of mulberry.
- Write an essay on rearing appliances used in sericulture.
- Describe the methods of rearing operations.