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

B.Sc. Zoology Degree (Semester) Examinations, November -2016
Part – III : Core Subject : First Semester : Paper - I

INVERTEBRATES-I
Under CBCS – Credit 4

Time: **3** Hours   Max. Marks: **75**

SECTION – A

<u>**Answer ALL Questions**</u> :   **(10 × 1 = 10)**

1. Osmoregulation in Paramecium is done by.
   a) Nucleus   b) Contractile vacuoles
   c) Trichocyst   d) Cilia

2. Sponges belong to the phylum?
   a) Porifera   b) Coelenterata   c) Protozoa   d) Annelida

3. Which of the following one is a polymorphic coelenterate?
   a) Physalia   b) Fungia   c) Hydra   d) All

4. Miracidium is the larva of ?
   a) Liver fluke   b) Hydra   c) Earthworm   d) Sponge

5. The larva of ascaris is ?
   a) Cercaria   b) Coeloblastula
   c) Rhabditiform   d) Planula

6. Name the endoparasitic protozoan of digestive tract.

7. Which structure in sponges corresponds to the mouth of other animals?

8. What are polyps.

9. Name the excretory organ of Lifer fluke.

10. Where does ascaris live in.

SECTION – B

<u>**Answer ALL Questions**</u> :   **(5 × 7 = 35)**

11. a) Write any seven salient features of phylum Protozoa.
    (OR)
    b) Give an account on nutrition in protozoan.

12. a) Give an account on asexual reproduction in sponges.
    (OR)
    b) Comment on spicules of sponges.

13. a) Describe the morphology of Obelia colony with a neat sketch.
    (OR)
    b) Write notes on types of coral reefs.

14. a) Write an account on any two theories on origin of Metazoan.
    (OR)
    b) Explain the female reproductive system of Fasciola.

15. a) Comment on extra-intestinal migration of rhabtitiform larva of ascaris.
    (OR)
    b) What is sexual dimorphism? Explain in detail from Ascaris.

SECTION – C

<u>**Answer any THREE Questions**</u> :   **(3 × 10 = 30)**

16. With a neat sketch, describe the structure of Paramecium.

17. Write an essay on canal system in sponges.

18. Give a detailed account of polymorphism in coelenterates.

19. Explain the life history of Fasciola *hepatica* with neat diagrams.

20. Give an account of the life history of filarial worm and explain its pathogenic effects.

******

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

B.Sc. Zoology Degree (Semester) Examinations, November -2016
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 Nereis, setae is related with _____.
   a) Locomotion   b) Reproduction
   c) Respiration   d) Excretion

2. The number of thoracic legs present in prawn is _____
   a) 12 pairs   b) 8 pairs
   c) 19 pairs   d) 16 pairs

3. Respiratory organ in scorpion is _____.
   a) Book lung   b) Setae
   c) Gills   d) Lung

4. Pila globosa is _____
   a) Sepia   b) Apple snail
   c) Star fish   d) None

5. The second larval stage of star fish is _____.
   a) Bipinnaria   b) Zoea
   c) Trochopore   d) None

6. What is parapodium?

7. Define petasma.

8. Define haemocoel.

9. What is ctenidium?

10. Define tube feet.

SECTION – B

Answer ALL Questions :   **(5 × 7 = 35)**

11.a) Write down the general characters of Annelida.
     (OR)
   b) Draw the diagram of metanephridia and label all the parts.

12.a) Briefly explain about nauplius larva.
     (OR)
   b) What are the general characters of phylum arthropoda?

13.a) Write short note on social life in insects.
     (OR)
   b) List down the external characters of centipedes.

14.a) Explain briefly about statocyst.
     (OR)
   b) Cephalopods are advanced molluscs. Discuss.

15.a) Draw a neat diagram of aboral view of star fish and label all the parts.
     (OR)
   b) What are the general characters of Asteroidea.

SECTION – C

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

16. Explain in detail about adaptive radiation in polychetes.

17. Peripatus is a good example for connecting link. Discuss.

18. Discuss in detail about economic uses of insects.

19. Give an account of general characters of phylum mollusca.

20. Describe water vascular system with neat sketch.

******

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST

(Residential & Autonomous – A Gurukula Institute of Life-Training)
Re-accredited with 'A' Grade by NAAC (CGPA 3.59 out of 4.00)
Affiliated to Madurai Kamaraj University

B.A. / B.Sc. Degree (Semester) Examinations, November 2016
Part – IV : Non Major Elective Subject : First Semester : Paper – I

HUMAN ANATOMY

Under CBCS – Credit 2

Time: **2** Hours   Maximum Marks: **75**

SECTION – A

Answer ALL Questions: (10 × 1 = 10)

1. Which of these is not connective tissue?
   a) blood   b) bone   c) muscle   d) cartilage

2. External respiration refers to
   a) Pulmonary ventilation   b) Exchange between the air and blood
   c) Exchange of gas transport by the blood   d) Cellular respiration

3. Which blood group is called as universal recipient?
   a) A   b) B   c) AB   d) O

4. Which bone protects the brain?
   a) Calcium   b) The cranium   c) The cerebrum   d) The cerebellum

5. What are the main functions of skin?
   a) Protection   b) Regulation   c) Sensation   d) All the above

6. What are Melanocytes?

7. What is Nephron?

8. Define and expand ECG.

9. What is Systolic pressure?

10. Comment on Pituitary gland.

SECTION – B

Answer ALL Questions: (4 × 10 = 40)

11. a) Explain the various types of tissues.   **(OR)**
    b) Brief the structure and functions of skin.

12. a) Explain the structure and function of tooth.   **(OR)**
    b) Describe the structure and functions of human Kidney.

13. a) Explain the physiology of human lungs.   **(OR)**
    b) Write an account of the physiology of human heart.

14. a) Describe the structure and functions of human brain.   **(OR)**
    b) Explain the role of hormones.

SECTION – C

Answer Any TWO Questions: (2 × 12½ = 25)

15. Write an essay on blood groups.

16. Explain the process of external respiration in man.

17. Write an account of the physiology of vision.

✪✪✪✪✪

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST
(Autonomous & Residential)
[Affiliated to Madurai Kamaraj University]
B.Sc. Zoology Degree (Semester) Examinations, November 2016
Part – III : Core Subject : Third Semester : Paper – I

CELL BIOLOGY
Under CBCS – Credit 4

Time: **3** Hours   Max. Marks: **75**

SECTION – A

Answer ALL Questions :   **(10 × 1 = 10)**

1. Which of the following is a basic unit of a living organism?

    a) Nucleus   b) Cell   c) Chromosome   d) Nucleolus

2. Which of the following cell organelle is modified into acrosome of sperm

    a) Ribosome   b) Lysososme   c) Golgi complex d) Nucleus

3. The Protein factories of the cell are

    a) Mitochondria   b) Microsomes c) Centrioles   d) Ribosomes

4. The cell division that occurs in the formation of germ cells is

    a) Amitosis   b) Mitosis   c) Meiosis   d) Paramitosis

5. Which of the following nitrogenous bases is absent in DNA

    a) Adenine   b) Guanine   c) Cytosine   d) Uracil

6. Mention the two types of electron microscopes.

7. Mention the two types of endoplasmic reticulum.

8. What are electron transport particles?

9. Comment on the major function of nucleolus.

10. Mention different types of RNA.

SECTION – B

Answer ALL Questions :   **(5 × 7 = 35)**

11. a) How will you separate various cell organelles using differential centrifugation?

    (OR)

    b) What is meant by fixation? Mention its aims and types.

12. a) Bring out the steps of Southern blotting using a flow chart.

    (OR)

    b) Analyse the functions of plasma membrane.

13. a) Explain the ultra structure of mitochondrion.

    (OR)

    b) Give an account on the chemical composition of ribosomes.

14. a) How does a normal cell differ from a cancer cell?

    (OR)

    b) Analyse the reasons for cell aging.

15. a) Distinguish between DNA and RNA.

    (OR)

    b) "DNA replication is a semi conservative process" – Substantiate.

SECTION – C

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

16. Discuss the principle of light microscope.

17. "Polymorphism is seen in lysosomes" – substantiate.

18. Analyse the sequential steps involved in TCA cycle.

19. Write an essay on giant chromosomes.

20. Discuss the mechanism of regulation of protein synthesis using lac operon concept.

✪✪✪✪

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST
(Autonomous & Residential)
[Affiliated to Madurai Kamaraj University]
B.Sc. Zoology Degree (Semester) Examinations, November 2016
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. Test cross ratio is

   a) 1:1   b) 3:1   c) 9:3:3:1   d) 9:3:4

2. In which one of the following the complementary genes are studied?

   a) Lathyrus odoratus   b) Pisum sativum   c) Fowl   d) Mice

3. The commonest Rh antigen is called as _____.

4. Among the ABO blood groups universal receipient is _____.

5. What is chromosome mapping?

6. What are the types of linkage?

7. Mention the significance of crossing over.

8. What is Barrbody?

9. What is meant by Free Martin?

10. Mention the significance of Pedigree analysis.

SECTION – B

Answer ALL Questions :   **(5 × 7 = 35)**

11. a) Explain Mendel's law of segregation by monohybrid experiment.

    (OR)

    b) Discuss the phenomenon of epistasis by citing an example.

12. a) Give an account of genetic basis of Rh blood group and its significance.

    (OR)

    b) How do the skin colour in man is controlled by polygenes?

13. a) Explain the various theories of linkage.

    (OR)

    b) Give one cytological evidence for crossing over.

14. a) How do sex determined in man?

    (OR)

    b) Give an account of Bleeder's disease.

15. a) Briefly explain any two human genetic syndromes.

    (OR)

    b) Write about twins.

SECTION – C

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

16. State Mendel's Laws. Give the reasons for his success.

17. How the ABO blood group is controlled by multiple alleles?

18. How will you map the Chromosome?

19. Write about the role of hornone and environment in sex determination.

20. Write an essay on inborn errors of metabolism.

✪✪✪✪

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST

(Residential & Autonomous – A Gurukula Institute of Life-Training)
Re-accredited with 'A' Grade by NAAC (CGPA 3.59 out of 4.00)
Affiliated to Madurai Kamaraj University

B.Sc. Zoology Degree (Semester) Examinations, November 2016
Part – IV : Skill Based Subject : Third Semester : Paper – I

PUBLIC HEALTH AND HYGIENE

Under CBCS – Credit 2

Time: **2** Hours   Maximum Marks: **75**

SECTION – A

Answer ALL Questions: (10 × 1 = 10)

1. The dietary constituents of foodstuffs are
    a) Carbohydrates   b) Proteins   c) Lipids   d) All the above
2. Rickets is due to the deficiency of
    a) Vitamin A   b) Vitamin D   c) Vitamin C   d) Vitamin E
3. Measles is caused by
    a) Bacteria   b) Virus   c) Fungi   d) Protozoan
4. Which is a symptom of Coronary Heart Disease?
    a) Headache   b) Sleeplessness   c) Pain or discomfort in the chest and arms d) Diarrhoea
5. The World Health Day is celebrated every year on
    a) 8th June   b) 7th April   c) 17th October   d) 25th March
6. Define: Health and hygiene.
7. What is balanced diet?
8. Write a short note on communicable disease.
9. What is first aid?
10. Define Dressing and Splints.

SECTION – B

Answer ALL Questions: (4 × 10 = 40)

11. a) Write notes on dietary role of carbohydrates.   **(OR)**
     b) What is malnutrition? Give the importance of malnutrition in human health.
12. a) Write short notes on effects of air pollution on human health.   **(OR)**
     b) Give a brief account of causative agent, symptoms and treatment of Diphtheria.
13. a) Explain the pathology and symptoms of Poliomyelitis.   **(OR)**
     b) Explain the causes of Diabetes.
14. a) Write a brief account of Health Service Agencies that assist for public health in India.   **(OR)**
     b) Give a brief account of mental health.

SECTION – C

Answer Any TWO Questions: (2 × 12½ = 25)

15. Discuss elaborately the classification of foods.
16. Give a detailed account on mode of transmission, incubation period, pathology, symptoms, and control measures of AIDS.
17. Discuss elaborately the functions of World Health Organization (WHO).

✪✪✪✪✪

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

B.Sc. Zoology Degree (Semester) Examinations, November -2016
Part – III : Allied Subject : Third Semester : Paper - I

ANIMAL ORGANIZATION
Under CBCS – Credit 4

Time: **3** Hours   Max. Marks: **75**

SECTION – A

Answer ALL Questions :   (10 × 1 = 10)

1. What kind of coelom is found in protozoan.
   a) Acoelom   b) Pseudocoelom
   c) Eucoelom   d) None

2. Respiratory organ in fish?
   a) Lungs   b) Gills   c) Osphradium d) Epipodite

3. The locomotory organ in Amoeba is?
   a) Cilia   b) Pseudopodia
   c) Flagella   d) Trichocyst

4. Phonoreceptor in man is ?
   a) Brain   b) Kidney   c) Ear   d) Eye

5. The structural and functional unit of kidney is ?
   a) Neuron   b) Nephron
   c) Neuston   d) Nekton

6. Who is the father of taxonomy.

7. Name the respiratory organ in cockroach?

8. What is clitellum.

9. Write the photoreceptor organ of Euglena.

10. Which organ does the excretory function in Amoeba.

SECTION – B

Answer ALL Questions :   (5 × 7 = 35)

11.a) Comment on types of Coelom in organisms with example.
   (OR)
   b) What do you known about binomial nomenclature.

12.a) Give an account on mode of feeding in Amoeba.
   (OR)
   b) Explain the respiratory system in cockroach. Add a note on its mechanism with neat sketch.

13.a) Describe the mode of locomotion in Paramecium.
   (OR)
   b) Draw a neat labeled diagram of arterial system of Calotes.

14.a) With a neat sketch, describe the nervous system of earthworm.
   (OR)
   b) Give an account on phonoreceptor in human.

15.a) Describe the female reproductive system of Rabbit.
   (OR)
   b) Explain the excretory system of earthworm with a neat sketch.

SECTION – C

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

16. Give outline classification of Chordates upto class level with examples.

17. With a neat sketch, describe the respiratory system in bird.

18. Give an account on flight mechanism in Pigeon.

19. Describe the structure and physiology of eye in man.

20. Explain the mechanism of urine formation in human
.

******

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST
(Autonomous & Residential)
[Affiliated to Madurai Kamaraj University]
B.Sc. Zoology Degree (Semester) Examinations, November 2016
Part – III : Core Subject : Fifth Semester : Paper – I

EVOLUTION
Under CBCS – Credit 5

Time: **3** Hours   Max. Marks: **75**

SECTION – A

Answer ALL Questions :   **(10 × 1 = 10)**

1. Which one of the following is an example for the evidences of physiology and biochemistry?

   a) Cytochrome C   b) Fossil   c) Fishes   d) Amphibian

2. The theory of Pangenesis is proposed by

   a) Charles   b) Darwin   c) Edwin   d) Gildwin

3. The term isolating mechanism was coined by

   a) Stebbins   b) Dobzhansky   c) Mayr   d) Haeckel

4. Which of the following is used as an indicator of prehistoric climate?

   a) Live animals   b) Live plants   c) Live fishes   d) Fossil

5. The characteristic feature of cursorial animal is

   a) burrowing   b) digging   c) flying   d) fast running

6. Define Oparin – Haldane theory.

7. Comment on Genetic drift.

8. What do you mean by sibling species?

9. Bring out the significance of fossils.

10. What is adaptive radiation?

SECTION – B

Answer ALL Questions :   **(5 × 7 = 35)**

11. a) Explain briefly any one evidence for embryology.

    (OR)

    b) Describe briefly the Neo-Lamarckism.

12. a) Write a brief account on the Modern synthetic theory.

    (OR)

    b) Give a brief account on the Natural selection theory.

13. a) Write a note on the Allopatric and sympatric speciation.

    (OR)

    b) Describe briefly mimicry and colouration.

14. a) Explain briefly the methods of fossilization.

    (OR)

    b) Give a brief account on the types of fossils.

15. a) Analyse briefly the adaptive radiation in mammals.

    (OR)

    b) Discuss briefly the orthogenesis in horse.

SECTION – C

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

16. Discuss in detail the evidences from morphology and comparative anatomy to support Evolution.

17. Analyse in detail the various types of selections with experimental evidences.

18. Give a detailed account on the isolating mechanisms.

19. Describe in detail the geological time scale.

20. Present in detail the biological evolution of man..

✪✪✪✪

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

B.Sc. Zoology Degree (Semester) Examinations, November -2016
Part – III : Core Subject : Fifth Semester : Paper - II

BIOCHEMISTYR AND BIOPHYSICS
Under CBCS – Credit 5

Time: **3** Hours   Max. Marks: **75**

SECTION – A

Answer ALL Questions : $(10 \times 1 = 10)$

1. pH of saliva is _____?
   a) 6.4- 6.8   b) 8.9-9.9   c) 10 -11   d) 13-14

2. Non protein part of an enzyme is _____
   a) Holoenzyme   b) Coenzyme
   c) Proenzyme   d) Apoenzyme

3. Emulsification of fat in small intestine is carried out
   by_____.
   a) Bile salts   b) Bicarbonate   c) Pepsin   d) Amylase

4. The net gain of ATP molecules in citric acid cycle is
   a) 24   b) 54   c) 44   d) 4

5. The energy available for work is
   a) Heat energy   b) Free energy
   c) Exothermic   d) Endothermic

6. What is Hexose?

7. Define Isoenzyme.

8. What is Deamination?

9. What is Biological Oxidation?

10. Define Brownian movement.

SECTION – B

Answer ALL Questions : $(5 \times 7 = 35)$

11.a) Write short note on Isomerism.
   (OR)
   b) Explain the properties of Proteins.

12.a) Briefly explain about cholesterol and its Biological
     significance.
   (OR)
   b) What are the factors affecting Enzyme action.

13.a) Write short note on urea cycle.
   (OR)
   b) Write a note on Glycogenolysis.

14.a) Explain briefly the Biologically important energy rich
     compounds.
   (OR)
   b) Briefly explain respiratory chain and Oxidative
     Phosporylation.

15.a) What is colloid? Explain its property.
   (OR)
   b) Write a note on Redox potential.

SECTION – C

Answer any THREE Questions : $(3 \times 10 = 30)$

16. What is buffer? Discuss the different types of buffer
    system.

17. Explain in detail about the mechanism of enzyme action.

18. Discuss in detail about beta oxidation of fatty acids.

19. Give an account of salient features and site of Biological
    Oxidation.

20. Explain the transport across cell membrane.

******

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST
(Autonomous & Residential)
[Affiliated to Madurai Kamaraj University]
B.Sc. Zoology Degree (Semester) Examinations, November 2016
Part – III : Core Subject : Fifth Semester : Paper – III

PRINCIPLES OF BIOTECHNOLOGY
Under CBCS – Credit 5

Time: **3** Hours   Max. Marks: **75**

SECTION – A

Answer ALL Questions :   **(10 × 1 = 10)**

1. Which of the following enzymes is popularly known as molecular scalpel?
   a) DNA gyrase   b) DNA polymerase
   c) Reverse transcriptase   d) Restriction endonuclease

2. The DNA finger printing technology was first developed by
   a) Alec Jeffreys   b) Kary Mullis   c) Williams   d) Boyer

3. The Construction of a new DNA using mRNA as a template is known as
   a) Transcription   b) Reverse transcription
   c) Translation   d) Transduction

4. Production of multiple follicles / eggs by artificial hormone treatment is known as
   a) Ovulation   b) Super ovulation
   c) Oogenesis   d) Non of the above

5. The ability of a cell to generate a new entire organism is due to its
   a) Apotency   b) Meropotency
   c) Totipotency   d) Oligopotency

6. What do you mean by shuttle vector?

7. Expand RFLP.

8. What is meant by Chimeric DNA?

9. Define the term transfection?

10. What is meant by callus?

SECTION – B

Answer ALL Questions :   **(5 × 7 = 35)**

11. a) Distinguish between modern and conventional biotechnology.
    (OR)
    b) Analyse various enzymes necessary for rDNA technology.

12. a) Bring out the steps of Southern blotting using a flow chart.
    (OR)
    b) Illustrate the methodology of DNA finger printing.

13. a) Briefly describe the Maxam and Gilbert method of DNA sequencing.
    (OR)
    b) How will you construct a genomic DNA library using shot gun cloning method?

14. a) Write an account on immobilized cell culture.
    (OR)
    b) What is meant by *in vitro* fertilization? Mention its advantages.

15. a) Analyse the advantages of micrpropagation.
    (OR)
    b) Bring out the steps involved in somatic embryogenesis.

SECTION – C

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

16. Explain the structure of pBR322 with an illustration and mention its advantages.

17. Write an essay on polymerase chain reaction.

18. Analyse various methods available for the selection of recombinant bacteria.

19. Write a critical account on particle bombardment.

20. Discuss the steps of protoplast fusion by polyethylene glycol treatment.

✪✪✪✪✪

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST

(Autonomous & Residential)

[Affiliated to Madurai Kamaraj University]

B.Sc. Zoology Degree (Semester) Examinations, November 2016

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

BIOSTATISTICS, COMPUTER APPLICATIONS & BIOINFORMATICS

Under CBCS – Credit 5

Time: **3** Hours   Max. Marks: **75**

SECTION – A

Answer ALL Questions :   (10 × 1 = 10)

1. In Pictogram, data are presented in the form of

   a) circle   b) picture   c) bar   d) staighline

2. The formula for calculating quartile deviation is

   a) $\dfrac{N}{4}$ b) $\dfrac{3N}{4}$ c) $\dfrac{Q3 - Q1}{2}$ d) $\dfrac{\Sigma x}{n}$

3. When a dice numbered 1 to 6 is tossed, the total number of chances

   is 6. Probability of any number is

   a) 0.83   b) 0.17   c) 0.83   d) 0.6

4. MS-Excel is a program for

   a) Word Processing   b) Creating Spread Sheets

   c) Information Management   d) Creating Presentation

5. FASTA provides

   a) match score for each sequence

   b) the score for single best match

   c) detailed annotation of matching sequence

   d) sequence similarity search

6. What is meant by data?

7. What is range?

8. How do you find degrees of freedom?

9. Mention the significance of MS-Word?

10. Expand 'BLAST'.

SECTION – B

Answer ALL Questions :   (5 × 7 = 35)

11. a) Give an account on frequency distribution.   **(OR)**

    b) Mention the Types of Data.

12. a) The marks scored by 11 students are given below. Calculate median for the data   15, 18, 10, 14, 20, 9, 21, 30, 6, 10, 11

    (OR)

    b) Find out the range and coefficient of range of the following data

    60, 50, 85, 90, 70, 40, 110, 130, 120, 100

13. a) One bowl contains 12 red and 20 green beads. A second bowl contains 16 red and 24 green beeds. One bead is drawn from each of the bowls at the same time. What is the probability that the beads drawn are both red?

    (OR)

    b) A bag contains 40 balls marked 1 – 40. Find the Probability of drawing a number, multiple of 8 and 10.

14. a) Write an account on 'Power Point'.   **(OR)**

    b) Analyse the functions of 'MS-EXCEL'.

15. a) Analyse the Biological databases.   **(OR)**

    b) Bring out the concepts of Bioinformatics.

SECTION – C

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

16. How do you represent data?

17. Calculate standard deviation for the following data :

    60, 60, 61, 62, 63, 64, 64, 70

18. When two heterozygous pea plants are crossed 800 plants are produced in the F2 generation. Out of which 560 are yellow round, 130 are yellow wrinkled 70 are green round and 40 are green wrinkled. Using chi-square test find out whether these values are deviated from Mendels dihybrid ratio of 9 : 3 : 3 :1. (Table value 7.81 @ 5% level of significance)

19. Elaborate the History and classification of computers.

20. Explain the tools in BLAST and FASTA.

✪✪✪✪✪

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST

(Residential & Autonomous – A Gurukula Institute of Life-Training)
Re-accredited with 'A' Grade by NAAC (CGPA 3.59 out of 4.00)
Affiliated to Madurai Kamaraj University

B.Sc. Zoology Degree (Semester) Examinations, November 2016
Part – IV : Skill Based Subject : Fifth Semester : Paper – I

SERICULTURE
Under CBCS – Credit 2

Time: **2** Hours   Maximum Marks: **75**

SECTION – A

Answer ALL Questions: (10 × 1 = 10)

1. Study of mulberry is called
   a) Sericulture   b) Moriculture   c) Apiculture   d) Aqua culture

2. Which is the optimum temperature for incubating of silkworm egg?
   a) 24°C   b) 34°C   c) 44°C   d) 54°C

3. Specify the class which includes silkworm
   a) Insecta   b) myriapoda   c) Gastropoda   d) None of these

4. The Powdery mildew diseases caused by
   a) Bacteria   b) Fungus   c) Virus   d) Nematodes

5. Chandrika is a
   a) Mountage   b) Ant well   c) Basket   d) Net

6. Name the common pest of silkworm.

7. What is silk reeling?

8. Expand CSRTI.

9. Expand CSB.

10. Expand DFL.

SECTION – B

Answer ALL Questions: (4 × 10 = 40)

11. a) Discuss the silk gland of silkworm with neat labelled diagram. **(OR)**
    b) Brief the types of silkworm.

12. a) Discuss the disinfection by physical and chemical methods. **(OR)**
    b) Describe the appliances used for silkworm rearing.

13. a) Describe the method of stifling. **(OR)**
    b) Write the structure of Rearing house.

14. a) Describe the root rot disease of mulberry. **(OR)**
    b) Write a short note vegetative propagation of mulberry.

SECTION – C

Answer Any TWO Questions: (2 × 12½ = 25)

15. Explain the methods of irrigation and pruning.

16. Explain the characteristics of defective cocoons.

17. Discuss the life cycle of silkworm.

✿✿✿✿✿