

# **Janki Devi Bajaj Government Girls College, Kota**

Monthly Test

M. Sc. Sem-I

Subject: Zoology

Paper-I (Invertebrate: Structure & Function)

*Maximum Marks: 15*

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## **Very short questions (one mark each)**

1. Define metamerism
2. What do you mean by amoeboid movement?
3. What is schizocoelom?
4. Define hydrostatic locomotion?
5. Write the function of cilia?

## **Short questions (2.5 marks each)**

6. Explain the structure of muscle fibres in invertebrates. Discuss their role in locomotion.
7. Write short notes on the following:
  - a) Amoeboid feeding
  - b) Filter feeding

## **Long answer questions (Five marks each)**

8. Describe flight mechanism in insects

**or**

Write short notes on the following:

- a) Parasitic mode of feeding.
- b) Locomotion in relation to hydrostatic skeleton.

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Paper-II (Biochemistry)

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## **Very short questions (one mark each)**

Q. 1 Define prostaglandins?

Q. 2 Define proteoglycans?

Q. 3. What do you mean by term affinity chromatography?

Q. 4. What is HPLC?

Q. 5 Define gluconeogenesis?

## **Short questions (2.5 marks each)**

Q. 6 Describe briefly tertiary and quaternary structure of proteins?

Q. 7 Write short notes on following:

(1) ion exchange chromatography

(2) beer-lambert 's law

## **Long answer questions (Five marks each)**

Q. 8 What is oxidative phosphorylation? Give detail account of E.T.S?

**or**

Explain the classification, structure, properties and functions of vitamins?

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Paper-III (Cell Biology)

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## **Very short questions (one mark each)**

1. Define magnification power of lens?
2. Who discovered Golgi body?
3. Write two functions Peroxisomes?
4. Define FISH technology?
5. Mention the stages of cell cycle?

## **Short questions (2.5 marks each)**

6. Explain the structure of Nucleus and its functions?
7. Explain Genetic regulation of cell cycle?

## **Long answer questions (Five marks each)**

8. Describe the Phase Contrast Microscope?

**or**

Write short notes on the following:

- a) Endocytosis & Exocytosis
- b) C-Value Paradox

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M. Sc. Sem-I

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Paper-IV (Evolution and Biostatistics)

*Maximum Marks: 15*

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## Very short questions (one mark each)

1. Define natural selection?
2. What is inbreeding depression?
3. Give two examples of Mimicry?
4. Define Bar diagram?
5. Define Genetic Drift?

## Short questions (2.5 marks each)

6. Write in short Micro-evolution?
7. Explain Adaptive Radiation?

## Long answer questions (Five marks each)

8. Explain Geological Time Scale?

**or**

Explain Chi-square

  
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