

Roll No.

Z-11-Y

Total No. of Questions : 16]

[Total No. of Printed Pages : 4

11th ARM(SZ)JKUT2024

1211-Y

ZOOLOGY

(BIOLOGY)

Time : 1.30 Hours]

[Maximum Marks : 35

Section-A

1 each

1. ~~/~~ Nephridia help in excretion and osmoregulation in

(A) Arthropoda

~~(B)~~ Annelida

(C) Aschelminthes

(D) Mollusca

11th ARM(SZ)JKUT2024-1211-Y

Turn Over

Z-11-Y

2. The process of inspiration during breathing involves :

- ☒ (A) Contraction of diaphragm and external inter-coastal muscles
- (B) Relaxation of diaphragm and external inter-coastal muscles
- (C) Contraction of diaphragm and relaxation of external inter-coastal muscles
- (D) Relaxation of diaphragm and contraction of external inter-coastal muscles

3. is frequently observed in cells actively involved in protein synthesis and secretion.

- (A) SER
- ☒ (B) RER
- (C) Centrosome
- (D) Lysosome

4. The most abundant protein in animal world is :

- (A) Tubulin
- (B) Keratin
- (C) Globulin
- ☒ (D) Collagen

5. The frogs escape from extreme cold by taking shelter in deep burrows during winter, it is referred as :

(A) Hibernation

(B) Aestivation

(C) Diapause

(D) Leaping

Section-B

2 each

6. What are National Parks ? Give two examples from Jammu and Kashmir.

7. What is a Coelom ? Give one example each of a Pseudocoelomate and Acoelomate.

8. How does a Nucleotide differ from a Nucleoside ?

9. Mitochondria are commonly called "Power Houses" of a cell. Comment.

10. Write two events that occur in the Pachytene stage of Prophase-I.

Section-C

3 each

11. "All vertebrates are chordates but all chordates are not vertebrates". Justify the statement with examples.

12. What are Nucleic Acids ? Write down their significance.

13. Meiosis-I is often considered a complete cell division. What is the necessity of occurrence of Meiosis-II in cell cycle ?

14. Give a brief account of the countercurrent mechanism.

15. What is meant by Double Circulation ? Write its significance.

Section-D

5 each

16. What are Skeletal Muscles ? Give a detailed account on the mechanism of muscle contraction.

Or

Define a Neuron. Describe the process of generation and conduction of nerve impulse in man.

Z-11-Z

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ZOOLOGY

(BIOLOGY)

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Section-A

1 each

1. Malpighian tubules act as excretory organs in

(A) Echinodermata

(B) Annelida

☒ (C) Arthropoda

(D) Hemichordata

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Turn Over

Z-11-Z

2. Vasopressin a key hormone is synthesised by
- (A) Neurohypophysis
 - (B) Hypothalamus
 - (C) Adenohypophysis
 - (D) Pineal gland
3. Mitochondrial DNA is :
- (A) Single Circular DNA
 - (B) Double Circular DNA
 - (C) Single Linear DNA
 - (D) Double Linear DNA
4. Which of the following are not substituted pyrimidines ?
- (A) Cytosine and Thymine
 - (B) Adenine and Guanine
 - (C) Cytosine and Uracil
 - (D) Thymine and Uracil

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5. Which of the following species of frog are commonly found in India ?

(A) *Rana tigrina* ✓

(B) *Rana temporaria*

(C) *Rana longicrus*

(D) *Rana amurensis*

Section-B

2 each

- ✓ 6. What are National Parks ? Give two examples from Jammu and Kashmir.
- ✓ 7. What is a Coelom ? Give one example each of a Pseudocoelomate and Acoelomate. <https://www.jkboseonline.com>
- ✓ 8. How does a Glycosidic Bond differ from a Peptide Bond ?
- ✓ 9. Cell is a basic unit of life. Comment.
10. Name two events that occur in the diplotene stage of Prophase-I.

Section-C

3 each

- ✓ 11. "All vertebrates are chordates but all chordates are not vertebrates". Justify the statement with examples.
12. What are Nucleic Acids ? Write down their significance.

13. Meiosis-I is often considered a complete cell division. What is the necessity of occurrence of Meiosis-II in cell cycle ?
14. Give a brief account of the countercurrent mechanism.
15. What is meant by Double Circulation ? Write its significance.

Section-D

5 each

16. What are Skeletal Muscles ? Give a detailed account on the mechanism of muscle contraction.

Define a Neuron. Describe the process of generation and conduction of nerve impulse in man.

V-11-A

Roll No.

Total No. of Questions : 16+13]

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XIAPB/AUTJK2024

2011-A

ZOOLOGY

(BIOLOGY)

(New/Old Course)

Time : 1½ Hours]

[Maximum Marks : 35

NOTE :— The questions in the question paper are based on revised and pre-revised syllabus marked as "**New Course**" and "**Old Course**" respectively and candidates are advised to appear in the relevant course meant for them. Candidates who may attempt the questions partly from "**New Course**" and partly from "**Old Course**" will not be awarded. Candidates are also advised to record "**New Course**" or "**Old Course**" as the case may be, on the front page of the answer-book.

XIAPB/AUTJK2024 – 2011-A (New)

Turn Over

V-11-A

Section–A

(Multiple Choice Questions)

1 each

1. A 'Group' with reduced or no polyp form is :

(A) ~~Hydrozoa~~

(B) Anthozoa

(C) Scyphozoa

(D) ~~Calcarea~~
2. Frog's cloacal aperture is an outlet for :

(A) ~~Urine~~

(B) Faeces

(C) Gametes

(D) All of these
3. 'S' in ribosomes like 70S, or 80S refers to :

(A) ~~Svedberg unit~~

(B) Smooth

(C) Speed

(D) Smallest unit

4. Muscle fatigue is due to excess formation of :

- (A) ADP
- (B) HCl
- (C) Creatinine
- (D) Lactic Acid

5. Placenta in human beings is formed by :

- (A) Amnion
- (B) Chorion
- (C) Allantois
- (D) Allantois, chorion and uterine wall

Section-B

(Very Short Answer Type Questions)

2 each

- 6. Write down two differences between National Parks and Sanctuaries.
- 7. What do you mean by Metamerism ? <https://www.jkboseonline.com>
- 8. What do you mean by term Cell Cycle ?
- 9. What do you mean by Aleuroplasts ?
- 10. What is Cardiac cycle ?

XIAPB/AUTJK2024 – 2011-A (New)

V-11-A

Turn Over

Section–C

(Short Answer Type Questions)

11. Write *three* general characters of Arthropoda.
12. Write down *three* properties of Enzymes.
13. How does a frog respire ?
14. Differentiate between Cilia and Flagella.
15. Write a short note on Blood Groups.

Section–D

(Long Answer Type Questions)

16. Describe in brief human excretory system with a suitable diagram.

Or

Explain in brief the Mechanism of hormone action. Add a note on hormonal disorders.

V-11-B

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XIAPB/AUTJK2024

2011-B

ZOOLOGY

(BIOLOGY)

(New/Old Course)

Time : 1½ Hours]

[Maximum Marks : 35

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XIAPB/AUTJK2024 – 2011-B (New)

V-11-B

Turn Over

(New Course)

Section-A

(Multiple Choice Questions)

1 each

1. 'Sea horse' is an example of :
(A) Pisces
(B) Reptilia
(C) Aves
(D) Mammalia
2. Nictitating membrane of frog is :
(A) Transparent
(B) Translucent
(C) Opaque
(D) Rudimentary
3. Smallest cell organelle is :
(A) Lysosome
(B) Centrosome
(C) Ribosome
(D) Golgi body

4. Contraction of gall bladder is under control of :
- (A) Gastrin
 - (B) Secretin
 - (C) Enterogastrone
 - (D) Cholecystokinin
5. 'Dysuria' is a condition of :
- (A) Less production of urine
 - (B) Excess of urea in blood
 - (C) Painful micturition
 - (D) None of these

Section-B

(Very Short Answer Type Questions)

2 each

6. What is the significance of Biosphere Reserve ?
7. What do you mean by Metagenesis ?
8. Write down the significance of Meiosis.
9. What do you mean by Aleuroplasts ?
10. What is Cardiac cycle ?

(4)

Section-C

(Short Answer Type Questions)

3 each

11. Write *three* general characters of Arthropoda.
12. Write down *three* properties of Enzymes.
13. How does a frog respire ?
14. Differentiate between Cilia and Flagella.
15. Write a short note on Blood Groups.

Section-D

(Long Answer Type Questions)

5 each

16. Describe in brief human excretory system with a suitable diagram.

Or

Explain in brief the Mechanism of hormone action. Add a note on hormonal disorders. <https://www.jkboseonline.com>