

Roll No.....

Total No. of Questions : 16]

[Total No. of Printed Pages : 6

11thARNKD(W/Z) JKLUT-2025

1211-B
BIOLOGY
(ZOOLOGY)

Time : 1½ Hours]

[Maximum Marks : 35

Note:- “Attempt any 30 Marks out of 35 Marks”.

SECTION-A

(Objective Type Questions)

(1 mark each)

1. The Axon membrane is specifically called

(Fill up)

11thARNKD(W/Z) JKLUT-25-1211-B

Turn Over

2. 'Glucagon' hormone is secreted by:
- (a) Pituitary
 - (b) Hypothalamus
 - (c) Ovary
 - (d) Pancreas
3. 'Hemis' National Park is famous for which endangered animal:
- (a) Hangul
 - (b) Tiger
 - (c) Snow leopard
 - (d) Red Panda

4. Nucleolus, Golgi complex and ER reform in metaphase.

(True/False)

5. The mouth is located on ventral side of the body in:

- (a) Mollusca
- (b) Porifera
- (c) Echinodermata
- (d) All the above

SECTION-B

(Very Short Answer Type Questions)

(2 marks each)

6. What are Nucleic acids? Write their main functions.

7. Draw a labelled diagrammatic sketch of Male Reproductive System of a Frog.
8. What is Rough Endoplasmic Reticulum (RER)? How is it different from Smooth Endoplasmic Reticulum (SER)
9. What are the Semi-autonomous organelles in a cell? Give a very brief account of any such organelle you know.
10. What is Blood Group 'O' known as a universal donor?

SECTION-C

(Short Answer Type Questions)

(3 marks each)

11. Write down the salient features of Phylum Annelida. What is the role of Nephridia in these animals?

12. ✓ 'Five Kingdom' classification has classified Eukaryotic animals under Kingdom Animalia, which is further divided into chordata and non-chordata. Give a Flowchart (Sketch) of classification of Phylum chordata upto class level. Also show where the 'Man' is placed in this classification.
13. ✎ What are Enzymes? Explain the physical properties of Enzymes. <https://www.jkboseonline.com>
14. ✎ What do you know about cytoskeleton? What is centriole and its function.
15. Write a short note on Transportation of gases in human beings.

SECTION-D

(Long Answer Type Question)

(5 marks)

- ✓
16. Explain the structure and function of the human Nephron. How does it contribute to urine formation?

OR

Explain the organisation of the human skeleton. Distinguish between Axial and Appendicular skeleton with examples.

Roll No.

Z-11-A

Total No. of Questions : 16]

[Total No. of Printed Pages : 4

11th ARF(SZ)JKUT2024-25

211-A

ZOOLOGY

(BIOLOGY)

Time : 1½ Hours]

[Maximum Marks : 35

Section-A

1 each

1. Coelenterates which exhibit metagenesis have two basic body forms called polyp and medusa. Which of the options represent their correct reproduction mode ?

- (A) ~~Polyp produces medusa asexually.~~
- (B) Medusa produces polyp asexually
- (C) Polyp produces medusa sexually
- (D) All of these

11th ARF(SZ)JKUT2024-25

211-A

Turn Over

Z-11-A

2. Age related disorder characterised by decreased bone mass emerging due to fall in estrogen level is :
- ☒ (A) Osteoporosis
- (B) Arthritis
- (C) Gout
- (D) Myasthenia gravis
3. The DNA present in chloroplast is :
- (A) Linear, Double stranded
- (B) Circular, Single stranded
- (C) Linear, Single Stranded
- ☒ (D) Circular, Double stranded
4. Lecithin, a small molecular weight organic compound found in living tissues is an example of :
- ☒ (A) Phospholipids
- (B) Glycerides
- (C) Glycoproteins
- (D) Glycolipids

5. In frog, oxygen dissolved in water can be taken by :

- (A) External nares
- (B) Spiracles
- (C) Buccal cavity
- (D) Skin

Section-B

2 each

6. How are Urochordates different from Cephalochordates ? Give *one* example of each.
7. Define Bioluminescence. Give *two* examples from ctenophores which exhibit property of bioluminescence.
8. How does temperature and pH affect enzyme activity ?
9. What are Plastids ? How is a Chromoplast different from a Leucoplast ?
10. Why is Meiosis called a reductional division ?

Section-C

3 each

11. What are Enzymes ? How are Lyases different from Ligases ? Give *one* example for each.
12. Write down the salient features of phylum Coelenterata.
13. Give the details of events which occur during interphase of a cell cycle.
14. Write a short note on oxygen dissociation curve.
15. Briefly explain the mechanism of muscle contraction.
<https://www.jkboseonline.com>

Section-L

5

16. Draw a well-labelled diagram of Human Kidney and with the help of a flow chart highlight path of urine drainage from collecting ducts to outside.

Or

Define a Neuron. Give an account on mechanism of synaptic transmission.

11th ARF(SZ)JKUT2024-25

211-B

ZOOLOGY

(BIOLOGY)

Time : 1½ Hours]

[Maximum Marks :

Section-A

1 e

1. Alimentary canal, urinary and reproductive tracts open into a common chamber called cloaca in :

- (A) Cyclostomata
- (B) Chondrichthyes
- (C) Osteichthyes
- (D) Amphibia

11th ARF(SZ)JKUT2024-25

211-B

Turn C

Z-11-B

2. A clinical condition in which heart does not pump blood effectively enough to meet the need of the body is referred as :
- (A) Heart attack
 - (B) Heart failure
 - (C) Cardiac arrest
 - (D) Angina pectoris
3. The Sedimentation coefficient 'S' of ribosomes is indirectly measure of :
- (A) Density and size
 - (B) Weight and size
 - (C) Density and weight
 - (D) Polarity and weight
4. Inhibition of succinic dehydrogenase by Malonate is a classical example of :
- (A) Competitive inhibition
 - (B) Non-competitive inhibition
 - (C) Uncompetitive inhibition
 - (D) Cofactor inhibition

5. A frog (*Rana tigrina*) has
- (A) Jaws but no teeth
 - (B) Eyes but no lids
 - (C) Ears but no pinna
 - (D) Hands but no fingers

Section-B

2 each

6. How are Urochordates different from Cephalochordates ? Give *one* example of each
7. Define Bioluminescence. Give *two* examples from ctenophores which exhibit property of bioluminescence. <https://www.jkboseonline.com>
8. What is a Nucleotide ? Which nucleic acid has uracil as a base constituent ?
9. Define a Vacuole. How is a contractive vacuole different from a food vacuole ?
10. What is G_0 (Quiescent Phase) of cell cycle ?

Section-C

3 each

11. What are Enzymes ? How are Lyases different from Ligases ? Give *one* example for each.
12. Write down the salient features of phylum Coelenterata
13. Give the details of events which occur during interphase of a cell cycle
14. Write a short note on oxygen dissociation curve.
15. Briefly explain the mechanism of muscle contraction.

Section-D

5

16. Draw a well-labelled diagram of Human Kidney and with the help of a flow chart highlight path of urine drainage from collecting ducts to outside.

Or

Define a Neuron. Give an account on mechanism of synaptic transmission.

Roll No

Z-11-C

Total No. of Questions : 16]

[Total No. of Printed Pages : 4

11thARF(SZ)JKUT2024-25

211-C

ZOOLOGY

(BIOLOGY)

Time : 1½ Hours]

[Maximum Marks : 35

Section-A

1 each

1. Sponges have a water transport system. Correct flow of water current is :

- (A) Oscula → Spongocoel → Ostia
- (B) Ostia → Spongocoel → Osculum
- (C) Ostia → Osculum → Spongocoel
- (D) Spongocoel → Ostia → Osculum

11thARF(SZ)JKUT2024-25

211-C

Turn Over

Z-11-C

2. Melatonin secreted by Pineal gland helps in maintaining of :
- (A) Heart rhythm
 - (B) Water and electrolyte balance
 - (C) Sexual desire
 - (D) Sleep wake cycle
3. Vesicles from ER fuse with :
- (A) Maturing face of Golgi body
 - (B) Forming face of Golgi body
 - (C) Primary Lysosomes
 - (D) Plasma membrane to remove out from cell
4. An example of protein with quaternary structure is :
- (A) Myoglobin
 - (B) Haemoglobin
 - (C) Keratin
 - (D) All of these

5. Which of these is not a characteristic feature of a frog ?

- (A) Webbed feet
- (B) Bilobed tongue
- (C) Thick leathery skin
- (D) Membranous tympanum

Section-B

2 each

6. How are Urochordates different from Cephalochordates ? Give *one* example of each.

7. Define Bioluminescence. Give *two* examples from ctenophores which exhibit property of bioluminescence.

8. What are Homopolysaccharides ? What type of saccharide is Heparin ?

9. Write *two* basic differences between a cilia and flagella.

10. What is cell cycle ? Enlist the different phases of cell cycle.

Section C

3 each

11. What are Enzymes ? How are Lyases different from Ligases ? Give *one* example for each.
 12. Write down the salient features of phylum Coelenterata.
 13. Give the details of events which occur during interphase of a cell cycle.
 14. Write a short note on oxygen dissociation curve.
 15. Briefly explain the mechanism of muscle contraction.
- <https://www.jkboseonline.com>

Section-D

5

16. Draw a well-labelled diagram of Human Kidney and with the help of a flow chart highlight path of urine drainage from collecting ducts to outside.

Or

Define a Neuron. Give an account on mechanism of synaptic transmission.

11th ARF(SZ) JKUT 2024-25 211-C

Z-11-C

Roll No.

Y-11-B

Total No. of Questions : 16]

[Total No. of Printed Pages : 4

11th ARM(H/Z)JKUTL2024-25

511-B

ZOOLOGY

(BIOLOGY)

Time : 1½ Hours]

[Maximum Marks : 35

Section-A

1 each

(MCQ/Objective Type Questions)

1. Eumetazoa show tissue or organ grade of organization. (True/False)

2. Frog is :

☒ (A) Uricotelic

(B) Ureotelic

☒ (C) Ammonotelic

(D) None of these

(Choose the correct one)

11th ARM(H/Z)JKUTL2024-25-511-B

Turn Over

Y-11-B

(2)

3. Who discovered Golgi Apparatus ?

4. If there is no production of urine, the condition is termed as :

(A) Anuria

(B) Oligourea

(C) Uremia

(D) None of these

(Choose the correct one)

5. Expand the term 'CAC'

Section-B

2 each

(Very-Very Short Answer Type Questions)

6. Name the levels of organization of Animals.

7. What is the significance of Sanctuaries ?

8. What do you mean by 'Cytoskeleton' ?

11thARM(H/Z)JKUTL2024-25-511-B

Y-11-B

9. Give two points of difference between Prokaryotic and Eukaryotic Cell.

10. What do you mean by Neural Control and Co-ordination ?

3 each

Section-C

(Short Answer Type Questions)

11. Write down characteristic features of Echinodermata.

12. Write down main functions of Carbohydrates.

13. Draw a neat and labelled diagram of digestive system of frog (No description is needed). <https://www.jkboseonline.com>

14. Write down *three* important functions of Golgi Apparatus.

15. Write a short note on urine formation.

11th ARM(H/Z)JKUTL2024-25-511-B

Y-11-B

Section-D

(Long Answer Type Question)

16. Define a Joint. Explain in brief mechanism of Muscle Contraction.

Or

Write short notes on the following :

(i) Urinary disorders

(ii) Osmoregulation

11thARM(H/Z)JKUTL2024-25-511-B

Y-11-B

Roll No.....

Total No. of Questions : 16+13]

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11thAP B.A JKLUT 2025

911-B

BIOLOGY

(Zoology)

(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.

11thAP B.A JKLUT 25-911-B

Turn Over

[2]

(New Course)

SECTION-A

(Very-very Short Answer Type Questions of (MCQ)

(1 mark each)

1. The most sensitive region of the body of Hydra is :
 - (a) Mouth
 - (b) Basal disc
 - (c) ✓ Tentacle
 - (d) Bud

2. Which of the following is known as commercial Sugar?
 - (a) Fructose
 - (b) ✓ Sucrose
 - (c) Maltose
 - (d) All of these

3. Which of the following is smallest organelle?
 - (a) Golgi Body
 - (b) Centrole
 - (c) E.R
 - (d) Ribosome

4. Reabsorption of water in the kidney is under the control of :
 - (a) ☒ ADH
 - (b) ACTH
 - (c) LH
 - (d) FSH

5. Joint between Atlas and Axis vertebra is an example of :
 - (a) Ball and Socket Joint
 - (b) ☒ Pivot Joint
 - (c) Hinge Joint
 - (d) Angular Joint

SECTION-B

(Very Short Answer Type Questions)

6. What is the economic importance of Corals.
7. Give two main characters of Trematodes.
8. Write a short note on Leucoplasts.
9. Differentiate between cell wall and cell membrane.
10. Write down the composition of Blood.

2×5=10

SECTION-C

11. What are Primary and Secondary metabolites?
12. Write short note on Dachigam National Park.
13. What are Plastids? Give their types.
14. Draw a well labelled diagram of female reproductive system of Frog.
15. Write a brief note on conduction of Nerve Impulse.

3×5=15

[5]

SECTION-D

16. Describe the various steps involved in Urine formation in human beings.

OR

Describe the internal structure of the human heart and show how blood circulates in it.

5

[6]

(Old Course)

Time : 1½ Hours]

[Maximum Marks : 35

SECTION-A

(1 mark each)

1. What is Micturition?
2. Name the muscle that causes Peristalsis.

SECTION-B

(2 mark each)

3. What is the importance of Pneumatic bones in Aves.
4. Explain the unit membrane hypertension.

OR

What are the primary components of the cell.

5. Name various types of Nephridia found in earthworm.
6. Differentiate between Bone and Cartilage.

SECTION-C

- (3 mark each)
7. Give few distinguishing features of Phylum porifera.
 8. Write down three differences between Museum and Zoological Park.
 9. Explain diagrammatically the behaviour of chromosomes in Meiosis-I.
 10. What is Joints? List any two types of Synovial joint.
 11. Enumerate the hormones secreted by Pituitary gland.

OR

Describe Glomerular filtration in human Nephron.

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SECTION-D

(5 mark each)

12. What are Macromolecules? Describe the structure of Carbohydrates.

OR

What is a Cell? Give an account of the structure of Mitochondria.

Turn Over

13. Explain the structure of Internal ear.

OR

Describe the structure of Human Heart with the help of diagram.

Roll No.....

Total No. of Questions : 16+13]

[Total No. of Printed Pages : 8

11thAP B.A JKLUT 2025

911-C

BIOLOGY

(Zoology)

(New/Old Course)

Time : 1½ Hours]

[Maximum Marks : 35

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11thAP B.A JKLUT 25-911-C

Turn Over

(New Course)

(Very-very Short Answer Type Questions of (MCQ)

(1 mark each)

SECTION-A

1. Modification of polyps are :
 - (a) Gastrozoid
 - (b) Dactylozooids
 - (c) Gonozooid
 - ☒ (d) All of these
2. Which of the following is least sweetest Sugar?
 - (a) Maltose
 - ☒ (b) Lactose
 - (c) Glucose
 - (d) None of these

3. Ribosomes are produced in :

- (a) Nucleus
- (b) Cytoplasm
- (c) Mitochondria
- (d) Golgi body

4. Diabetes insipidus is caused by reduced activity in :

- (a) Thyroid
- (b) Anterior lobe of Pituitary
- (c) Intermediate lobe of pituitary
- (d) Posterior lobe of pituitary

5. Which of the following stimulates conversion of Glucose to Glycogen?

- (a) Insulin
- (b) Heparin
- (c) Androgen
- (d) None of these

[4]

SECTION-B

(Very Short Answer Type Questions)

6. What is the sequence of Classification? 5×2=10
7. Differentiate between Radial and bilateral symmetry.
8. Write a short note on chloroplasts.
9. Differentiate between cell wall and cell membrane.
10. Write down the composition of Blood.

SECTION-C

11. What are primary and secondary metabolites? 5×3=15
12. Write short note on Dachigam National Park.
13. What are Plastids? Give their types.
14. Draw a well labelled diagram of female reproductive system of Frog.
15. Write a brief note on conduction of Nerve Impulse.

[5]

SECTION-D

16. Describe the various steps involved in Urine formation in human beings. 5

OR

Describe the internal structure of Human heart and show how blood circulates in it.

[6]

(Old Course)

Time : 1½ Hours]

[Maximum Marks : 35

SECTION-A

(1 mark each)

1. What is Uriniferous tubule?
2. What is the contractile unit of a muscle fibre called?

SECTION-B

(2 marks each)

3. What is the importance of air sacs in Aves?
4. What is cell membrane permeability?

OR

What are the types of Cell membrane?

5. Write the names of appendages associated with the head of a cockroach?

6. Differentiate between nerve fibre and muscle fibre.

SECTION-C

(3 marks each)

7. Give few distinguishing features of Phylum porifera.

8. Write down three differences between Museum and Zoological Park.

9. Explain diagrammatically the behaviour of chromosomes in Meiosis-I.

10. What is joint? List any two types of Synovial joint.

11. Enumerate the hormones secreted by Pituitary gland.

<https://www.jkboseonline.com>

OR

Describe Glomerular filtration in human Nephron.

SECTION-D

(5 marks each)

12. What are Macromolecules? Describe the structure of Carbohydrates.

OR

What is a cell? Give an account of the structure of Mitochondria.

13. Explain the structure of Internal ear.

OR

Describe the structure of Human Heart with the help of diagram.
