

TIMING : 1.30 Hrs
CLASS : XI

COMMON QUARTERLY EXAM-2024
PART – II – BIO- ZOOLOGY
PART – I
TENTATIVE ANSWER KEY

TOTAL MARKS : 35

CHOOSE THE CORRECT ANSWER

(8 × 1 = 8)

Q.NO	ANSWER	MARKS
1	(b) flame cells	1
2	(d) Both (b) and (c)	1
3	(b) three	1
4	(a) Parotid	1
5	(a) inflammation of bronchus and bronchioles	1
6	(a) Foetal RBC's	1
7	(c) Urea	1
8	All are correct answer. There is no wrong statement	1

PART – II

(4 × 2 = 8)

Answer any FOUR from the following question.

Q.N O	ANSWER	MARK S SPLITT	TOTAL MARK S									
9	Triploblastic animals Animals in which the developing embryo has three germinal layers are called triploblastic animals	(2)	(2)									
10	White adipose tissue and Brown adipose tissue <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>s.no</th> <th>White adipose tissue</th> <th>Brown adipose tissue</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Adipose tissues are also found in subcutaneous tissue, surrounding the kidneys, eyeball, heart, etc.</td> <td>The adipose tissue which contains abundant mitochondria is called 'Brown fat' or Brown adipose tissue.</td> </tr> <tr> <td>2</td> <td>White fat stores nutrients</td> <td>It is used to heat the blood stream to warm the body</td> </tr> </tbody> </table>	s.no	White adipose tissue	Brown adipose tissue	1	Adipose tissues are also found in subcutaneous tissue, surrounding the kidneys, eyeball, heart, etc.	The adipose tissue which contains abundant mitochondria is called 'Brown fat' or Brown adipose tissue.	2	White fat stores nutrients	It is used to heat the blood stream to warm the body	(1+1)	(2)
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11	Functions of HCL in stomach The HCl provides an acidic medium which is optimum for pepsin, kills bacteria and other harmful organisms and avoids putrefaction	(2)	(2)									
12	Vital capacity (VC) The maximum volume of air that can be moved out during a single breath following a maximal inspiration. A person first inspires maximally then expires maximally. VC = ERV+TV+IRV	(2)	(2)									
13	Different types of WBC (White Blood Cells)	(2)	(2)									

	<p style="text-align: center;">Eosinophils Basophils Neutrophils</p> <p style="text-align: center;">Granular leucocytes</p> <p style="text-align: center;">Monocytes Lymphocytes</p> <p style="text-align: center;">Some become Some become</p> <p style="text-align: center;">Macrophages (tissues) Plasma cells</p> <p style="text-align: center;">Agranular leucocytes</p>		
14	<p>Lymph The fluid inside the lymphatics is called lymph. Cells found in the lymphatics are the lymphocytes.</p>	(2)	(2)

PART – III

(3 × 3 = 9)

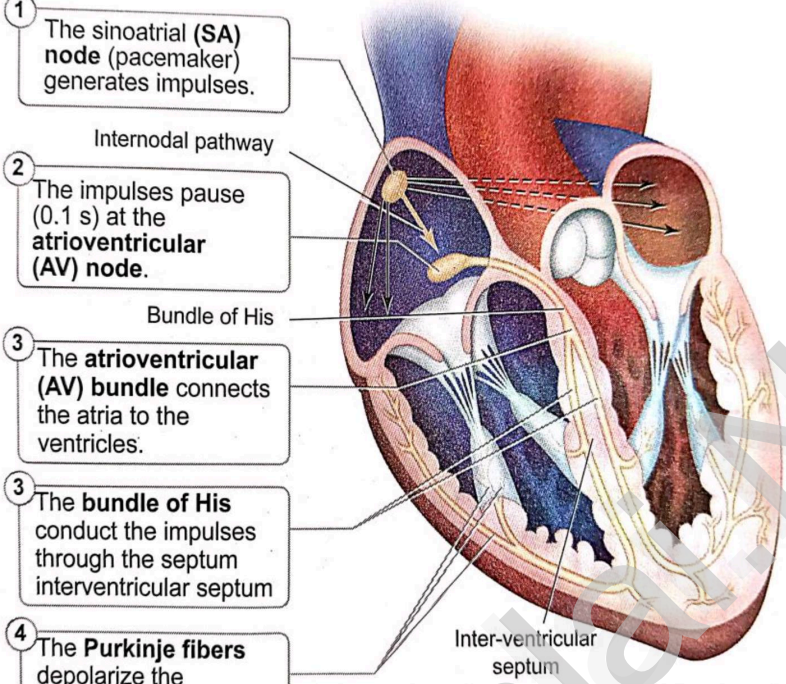
Answer any THREE from the following question. (Q.NO.19 is compulsory Question)

Q.NO	ANSWER	MARKS SPLIT	TOTAL MARKS
15	<p>Some epithelial cells are Pseudostratified why i) Pseudo-stratified epithelial cells are columnar, but unequal in size. ii) Although the epithelium is single layered yet it appears to be multi-layered because the nuclei lie at different levels in different cells.</p>	(1 ½+1 1/2)	(3)
16	<p>Characteristics features of class mammals i) Variety of habitats, homeothermic, body is covered by hair. Presence of mammary glands. ii) They have 2 pair of limbs, skin has sweat glands and sebaceous gland and glandular in nature. iii) Exoskeleton includes – horns, spines, scales, claws, nails, hooves, and bony dermal plates</p>	(1+1+1)	(3)

17	Flow chart to show the pathway of air flow during respiration Nose → Nasal & Oral cavities → Pharynx → Larynx → Trachea → Bronchi → Secondary bronchi → Tertiary bronchi → Smaller bronchi → Bronchioles → Terminal bronchiole → Respiratory bronchiole → Alveoli → Alveoli walls.	(3)	(3)									
18	Open circulation and closed circulation <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Open circulation</th> <th>Closed circulation</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Haemolymph as the circulating fluid and is pumped by the heart, which flows through blood vessels into the sinuses</td> <td>Blood is pumped by the heart and flows through blood vessels.</td> </tr> <tr> <td>2</td> <td>e.g Arthropods and most Molluscs</td> <td>e.g Annelids, Cephalopods and Vertebrates.</td> </tr> </tbody> </table>		Open circulation	Closed circulation	1	Haemolymph as the circulating fluid and is pumped by the heart, which flows through blood vessels into the sinuses	Blood is pumped by the heart and flows through blood vessels.	2	e.g Arthropods and most Molluscs	e.g Annelids, Cephalopods and Vertebrates.	(1 ½ + 1 1/2)	(3)
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2	e.g Arthropods and most Molluscs	e.g Annelids, Cephalopods and Vertebrates.										
19 (C.Q)	Three main hormones involved in the regulation of the renal function 1) ADH – Antidiuretic hormone 2) Renin- Angiotensin 3) Aldosterone	(1 + 1 + 1 = 3)	(3)									

PART – IV**(2 × 5 = 10)****Answer ALL from the following question**

Q.N O	ANSWER	MARK S SPLIT	TOTAL MARK S
20 (a)	The classical taxonomical tools i) Taxonomical Keys: Keys are based on comparative analysis of the similarities and dissimilarities of organisms. There are separate keys for different taxonomic categories. ii) Museum: Biological museums have collection of preserved plants and animals for study and ready reference. Specimens of both extinct and living organisms can be studied. iii) Zoological parks: These are places where wild animals are kept in protected environments under human care. It enables us to study their food habits and behaviour. iv) Marine parks: Marine organisms are maintained in protected environments. v) Printed taxonomical tools consist of identification cards, description, field guides and manuals.	(1) (1) (1) (1) (1)	(5)
20 (b)	Diagram of Digestive system of <i>Rana hexadactyla</i>		(5)

	<p>Pacemaker. On the left side of the right atrium is a node called auriculo ventricular node (AV node).</p> <p>iv) Two special cardiac muscle fibres originate from the auriculo ventricular node and are called the bundle of His which runs down into the interventricular septum and the fibres spread into the ventricles. These fibres are called the Purkinje fibres.</p>  <p>1 The sinoatrial (SA) node (pacemaker) generates impulses.</p> <p>Internodal pathway</p> <p>2 The impulses pause (0.1 s) at the atrioventricular (AV) node.</p> <p>Bundle of His</p> <p>3 The atrioventricular (AV) bundle connects the atria to the ventricles.</p> <p>3 The bundle of His conduct the impulses through the septum interventricular septum</p> <p>4 The Purkinje fibers depolarize the contractile cells of both ventricles.</p> <p>Inter-ventricular septum</p> <p>Figure 7.7 The sequence of electrical conduction of heart.</p>	(1)	
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COMMON QUARTERLY EXAM - 2024**Standard - XI****Time : 3.00 hrs****BIOLOGY****Marks: 70****Part - I Bio-Botany****Marks: 35****Part - A****I. Choose the correct answer****8×1=8**

- 1) Identify the correctly matched pair:
 - a) Bacteria - Crown gall
 - b) Actinomycetes - Late blight
 - c) fungi - Sandal spike
 - d) Mycoplasma - Lumpy jaw
- 2) Which one is not Angiospermic feature
 - a) Double fertilization is present
 - b) The ovules remains enclosed in the ovary
 - c) Endosperm is haploid
 - d) Flowers are produced
- 3) _____ is characteristic adaptation of xerophytes where the leaves modified into spines or scales
 - a) Phylloclade
 - b) Lianas
 - c) Caudex
 - d) culm
- 4) Vexillary aestivation is characteristic of the family
 - a) Fabaceae
 - b) Asteraceae
 - c) Solanaceae
 - d) Brassicaceae
- 5) Cell theory was proposed by
 - a) Fisher and Hardy
 - b) Hertwig and Huxley
 - c) Corti and Felix
 - d) Matthias schleiden and Theodor Schwann
- 6) The correct sequence in cell cycle is
 - a) S-M-G₁-G₂
 - b) S-G₁-G₂-M
 - c) G₁-S-G₂-M
 - d) M-G₁-G₂-S
- 7) Which pair is Polysacharides
 - a) Starch, Maltose
 - b) Glycogen, Lactose
 - c) Starch, glycogen
 - d) glycogen and glucose
- 8) Identify the unit of Micrometer
 - a) mm
 - b) nm
 - c) μm
 - d) A°

Part - B**II. Answer any four questions:-****4×2=8**

- 9) What is plectostele? Give an example.
- 10) Define Capnophilic Bacteria
- 11) Draw and label the parts of the leaf.
- 12) Write any two uses of Herbarium.
- 13) What are the four stages of Mitosis.
- 14) Differentiate between aggregate fruit and multiple fruit.

Part - C**3×3=9****III. Answer any three question: Question No. 18 is compulsory:**

- 15) State the merits and demerits of five kingdom classification.
- 16) Do you think shape of chloroplast is unique for algae. Justify your answer?
- 17) Give a note on Cyathium inflorescence.
- 18) Differentiate between rough endoplasmic reticulum and smooth endoplasmic reticulum.
- 19) State the properties of Water.

Part - D**IV. Answer all the questions:-****2×5=10**

- 20) a) Briefly discuss on five kingdom classification. [or]
- b) Describe the floral characters of *Clitoria ternatea*.
- 21) a) Draw and label the Ultra structure of Plant cell. [or]
- b) Write the characteristic feature of DNA.

(2)

Part - II Bio-Zoology**XI BIOLOGY**

Marks: 35

Part - A**I. Choose the correct answer**

8×1=8

- 1) The excretory cells that are found in Platyhelminthes
 - a) Nephridia
 - b) flamecells
 - c) solenocytes
 - d) Greenglands
- 2) The main function of the cuboidal epithelium is
 - a) Protection
 - b) secretion
 - c) Absorption
 - d) Both (b) and (c)
- 3) How many chambers is present in heart of Rana hexadoctyla
 - a) four
 - b) three
 - c) two
 - d) five
- 4) Among three pairs salaivary gland which one is largest
 - a) Parotid
 - b) Sub maxillary
 - c) Sub lingual
 - d) Sub Mandibular
- 5) Asthma is caused due to
 - a) inflammation of bronchus and bronehioles
 - b) inflammation of branchione
 - c) damage of diaphram
 - d) infecton of lungs
- 6) Erythroblastosis foetalis is due to the destruction of
 - a) Foetal RBC's
 - b) Foetus suffers from atherosclerosis
 - c) Foetal WBC's
 - d) Foetus suffers from mianmata
- 7) The end product of Ornithine cycle is
 - a) Carbondioxide
 - b) Uric acid
 - c) Urea
 - d) ammonia
- 8) Choose the wrong statement among the following
 - a) In earthworm, a pair of male genitalpore is present
 - b) Setae help in locomotion of earthworms
 - c) Muscular layer in the body wall of earthworm is made up of circular muscled and longitudinal muscled.
 - d) Typhlosole is part of the intestine of earthworm.

Part - B**II. Answer any four questions:-**

4×2=8

- 9) Define: Triploblastic animal
- 10) Differentiate white adipose tissue from brown adipose tissue
- 11) What is the function of HCl which is secreted in stomach.
- 12) Define Vital capacity.
- 13) Draw the different types of (WBC) White Blood Cells.
- 14) What is lymph?

Part - C**III. Answer any three questions.****Question No.17 is compulsory:**

3×3=9

- 15) Some epithelial cells are Pseudostraified what does this mean?
- 16) List three features that characterise class Mammalia.
- 17) Sketch a flowchart to show the pathway of air flow during respiration.
- 18) Distinguish between open and closed circulation.
- 19) Name the three main hormones involved in the regulation of the renal function.

Part - D**IV. Answer all the questions:**

2×5=10

- 20) a) What are the various classical taxonomical tools? Explain. [or]
- b) Give neat labelled sketch of Digestive system of Rana hexa dactyla
- 21) a) Explain the Mechanism of breathing. [or]
- b) Explain the origin and conduction of Heart Beat.
