

QUARTERLY EXAMINATION - 2024

CLASS: XI

BIOLOGY

Reg.No

Time : 3.00 Hours

BIO-BOTANY

MAX MARKS : 70

MARKS : 35

SECTION-I

Choose and write the correct answer.

8x1=8

1. Match the following

i) Cholera	- a) <i>Mycobacterium leprae</i>	a) i) b	ii) c	iii) d	iv) a
ii) Typhoid	- b) <i>Vibrio cholerae</i>	b) i) a	ii) c	iii) b	iv) a
iii) Pneumonia	- c) <i>Salmonella typhi</i>	c) i) b	ii) a	iii) d	iv) c
iv) Leprosy	- d) <i>Diplococcus pneumoniae</i>	d) i) b	ii) c	iii) a	iv) d
2. The haploid number of chromosome for an angiosperm is 14, the number of chromosome in its endosperm would be

a) 7	b) 14	c) 42	d) 28
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3. Select the mismatch pair

a) <i>Musa</i> - Unicostate	b) <i>Lablab</i> - Trifoliolate	c) <i>Acalypha</i> - Leaf mosaic	d) <i>Allamanda</i> - Ternate phyllotaxy
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4. Flowers are zygomorphic in

a) <i>Ceropegia</i>	b) <i>Thevetia</i>	c) <i>Datura</i>	d) <i>Solanum</i>
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5. **Assertion :** Chromatin is a viscous gelatinous substance that contains DNA, histone & non - histone proteins and RNA
Reason : H1, H2A, H2B, H3 and H4 are the different histones found in chromatin

a) Assertion is True and Reason is False	b) Reason is True and Assertion is False
c) Both Assertion and Reason are True	d) Both Assertion and Reason are False
6. The two subunits of ribosomes remain united at critical ion level of

a) Magnesium	b) Calcium	c) Sodium	d) Ferrous
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7. Arrange the five substages of prophase I in Meiosis I

a) Leptotene, Zygotene, Pachytene, Diplotene, Diakinesis
b) Leptotene, Zygotene, Pachytene, Diakinesis, Diplotene
c) Zygotene, Pachytene, Diplotene, Diakinesis, Leptotene
d) Pachytene, Diakinesis, Diplotene, Leptotene, Zygotene
8. Watson and Crick model of DNA double helix is form

a) A	b) C	c) H	d) B
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SECTION-II

Answer any FOUR of the following.

4X2=8

9. Define - Virion
10. What is plectostele? give example
11. Compare Sympodial branching with Monopodial branching
12. Define - Resolution
13. Give short Note - Aggregate fruit.
14. Name the different types of RNA

SECTION-III

Answer any THREE of the following. Question number 19 is compulsory.

3X3=9

15. Differentiate haplontic and diplontic life cycle
16. Taxonomic entities are classified in three ways, what are they?
17. How root climbers differ from stem climbers?
18. Write any three significances of mitosis
19. Draw the structure of Polytene chromosomes and label the parts

SECTION-IV

Answer the questions.

2x5=10

20. a) Explain the difference types of fleshy fruit with suitable example. (OR)
- b) Write the steps involved in Gram Staining
21. a) Write the properties of water (OR)
- b) Write the botanical description of *Allium cepa*

BIO - ZOOLOGY

MARKS : 35

SECTION - I**Note : I. Answer all the Questions****8x1=8****II. Choose most appropriate answer from the given four alternatives and write the option code and the corresponding answer**

- What taxonomic aid gives comprehensive information about a taxon?
a) Taxonomic Key b) Herbarium c) Flora d) Monograph
- Nephridia of Earthworms are performing the same functions as
a) Gills of Prawn b) Flame cells of Planaria c) Trachea of insects d) Nematoblasts of Hydra
- Non-shivering thermogenesis in neonates produces heat through
a) White fat b) Brown fat c) Yellow fat d) Colourless fat
- Presence of gills in the tadpole of frog indicates that
a) fishes were amphibious in the past b) fishes evolved from frog like ancestors
c) frogs will have gills in future d) frogs evolved from gilled ancestor
- Which of the following combination are not matched?

Column-I	Column-II
a) Billrubin and	i. Intestinal biliverdin juice
b) Hydrolysis of starch	ii. Amylases
c) Digestion of fat	iii. Lipases
d) Salivary gland	iv. Parotid
- Which of the following substances in tobacco smoke damage the gas exchange system?
a) carbon monoxide and carcinogens b) carbon monoxide and incotine
c) carcinogens and tar d) nicotine and tar
- Erythroblastosis foetalis is due to the destruction of
a) Foetal RBC's b) Foetus suffers from atherosclerosis
c) Foetal WBCs d) Foetus suffers from mianmata
- Podocytes are the cells present on the
a) Outer wall of Bowman's capsule b) Inner wall of Bowman's capsule
c) Neck of nephron d) Wall glomerular capillaries

SECTION-II**Answer any 4 questions****4x2=8**

- What are extremophiles?
- Comment on the functions of salivary muscles?
- Differentiate between peristomium and prostomium in earthworm
- Define Glisson's capsule
- What are flame cells?
- Why is pneumonia considered a dangerous disease?

SECTION-III**Answer any 3 questions. Question No.19 is compulsory.****3x3=9**

- Compare closed and opened circulatory system
- How does the male frog attract the female for mating?
- Bile juice contains no digestive enzymes, yet it is important for digestion why?
- Name the three pair of salivary glands with their ducts
- Some epithelia are pseudostratified what does this mean?

SECTION-IV**Answer All the questions :****2x5=10**

- Write the characteristics that contribute to the success of reptiles on land (OR)
Distinguish between arteries and veins
- Explain the female reproductive system of frog. (OR)
Explain about digestion in the small intestine

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