

**QUARTERLY EXAMINATION - 2023****CLASS: XI****BIOLOGY**

Reg.No

**MAX MARKS : 70**

Time : 3.00 Hours

**BIO-BOTANY****MARKS : 35****SECTION-I****Choose and write the correct answer.****8x1=8**

- The Five Kingdom Classification was proposed by  
 (a) Carl Linnaeus (b) Ernst Haeckel (c) R.H. Whittaker, (d) Copeland
- Which of following represents gametophytic generation in pteridophytes?  
 (a) Prothallus (b) Thallus (c) Cone (d) Rhizophore
- Which is plant tubers helpful in promoting labour pains in women  
 a) Aloe vera b) Asparagus racemosus c) Colchichum luteum d) Gloriosa superba
- Which of the following is polycarpic plant?  
 a) Mangifera b) Bambusa c) Musa d) Agave
- Which RNA is used to identify phylogeny?  
 a) mRNA b) rRNA c) tRNA d) hnRNA
- The correct sequence of cell cycle  
 a) S-M-G1-G2 b) S-G1-G2-M c) G1-S-G2-M d) M-G1-G2-S
- Identify the incorrect statement about the Gram positive bacteria  
 a) Teichoic acid present b) High percentage of peptidoglycan is found in cell wall  
 c) Cell wall is single layered d) Lipopolysaccharide is present in cell wall
- Which one of the following is example for Prosthetic group  
 a) Chloride ions b) riboflavin c) NAD d) NADP

**SECTION -II****Answer any FOUR of the following.****4X2=8**

- Write the types of ascocarps present in Ascomycetes fungi.
- What do you infer from the term pycnoxylic?
- What is epiphytic or velamen root?
- Do you agree with the statement Bryophytes need water for fertilization? Justify your answer
- What is Binomial?
- Define: Zwitter ion

**SECTION-III****Answer any THREE of the following. Question number 18 is compulsory.****3X3=9**

- List out the living and non-living characters of viruses
- Write an Economic importance of algae.
- Write the similarities and differences between Phylloclade and cladode
- Draw a diagram of polytene chromosome and label the parts.
- Write any three significance of mitosis

**SECTION-IV****Answer the questions.****2x5=10**

- a) Explain the difference types of placentation with example (OR)  
 b) Give the floral characters of Clitoria ternatea.
- a) Difference between plant and animal cell. (OR)  
 b) Write the characteristic feature of DNA

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**Bio-Zoology****MARKS : 35****SECTION-I****(i) Answer all the questions.****8x1=8****(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.**

- Cladogram considers the following characters
  - Physiological and Biochemical
  - Evolutionary and Phylogenetic
  - Taxonomic and systematic
  - None of the above
- Which of the following is not correctly paired?
  - Humans – Ureotelic
  - Birds – Uricotelic
  - Lizards – Uricotelic
  - Whale – Ammonotelic
- Non-shivering thermogenesis in neonates produces heat through
  - White fat
  - Brown fat
  - Yellow fat
  - Colourless fat
- Buccopharyngeal respiration in frog
  - Stops when there is pulmonary respiration
  - is increased when nostrils are closed
  - is increased when it is catching fly
  - stops when mouth is opened.
- Which of the following hormones stimulate the production of pancreatic juice and bicarbonate?
  - Angiotensin and epinephrine
  - Gastrin and insulin
  - Cholecystokinin and secretin
  - Insulin and glucagon
- Make the correct pairs. Column-I with Column-II.  
 (P). IC i. maximum volume of air breathe in after forced.  
 (Q). EC ii. Volume of air present after expiration in lungs.  
 (R). VC iii. Volume of air inhaled after expiration.  
 (S). FRC iv. Volume of air present after expiration in lungs.
  - P – i , Q – ii , R – iii , S – iv
  - P – ii , Q – iii , R – iv , S – i
  - P – ii , Q – iii , R – i , S – iv
  - P – iii , Q – iv , R – i , S – ii
- Blood group is due to the presence or absence of surface
  - Antigens on the surface of WBC
  - Antibodies on the surface of RBC
  - Antigens on the surface of RBC
  - Antibodies on the surface of WBC
- Find out the wrong pair from the following.
  - Flame cells - Earthworm
  - Green glands - Prawns
  - Solenocytes - Amphioxus
  - Malpighian tubules - Insects

**SECTION-II****Answer any 4 questions. Question No.14 is compulsory.****4 × 2 = 8**

- Differentiate between probiotics and pathogenic bacteria.
- What are earthworm casts?
- Head of cockroach is called hypognathous. Why?
- Define: Thecodont.
- What are flame cells?
- Name the respiratory organs of Earthworm, fish, cockroach and cat.

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

- Compare Schizocoelom with Enterocoelom with example.
- Write the types of respiration seen in frog.
- List the chemical changes that starch molecule undergoes from the time it reaches the small intestine.
- A persons height is 180 cm. His boby weight is 80 kg. Find out BMI and tell him whether he is normal or obese.
- Differentiate white adipose tissue from brown adipose tissue.

**SECTION-IV****Answer all the questions.****2x5=10**

- What is an epithelium? Enumerate the characteristic features of different epithelia. (OR)  
Differentiate between male and female cockroach.
- Describe the mechanism by which the human heart beat is initiated and controlled. (OR)  
Listout the functions of liver.

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