

**\* COMMON QUARTERLY EXAM - 2024**  
**Standard - XII**

**Time : 3.00 hrs**

**BIOLOGY**

**Marks: 70**

**Part - I Bio-Botany**

**Marks: 35**

**Section - I**

**I. Answer all the questions.**

**8×1=8**

- 1) Size of Pollen grain in myosotis \_\_\_\_\_  
 a) 10                      b) 2000                      c) 20                      d) 200
- 2) Solidifying agent used in plant tissue culture in  
 a) Nicotinic acid    b) Cobaltous chloride    c) EDTA    d) Agar
- 3) What is the phenotype of wheat kernal colour for the genotype:  $R_1R_2r_2r_2$   
 a) Dark red                                      b) medium dark red  
 c) medium red                                      d) Light red
- 4) Which of the given plant produces cardial glycosides  
 a) Calotropis            b) Acacia                      c) Nepenthy            d) Utricularia
- 5) Match the following and find the correct answer  
 i) Pentasomy                                      -            A)  $2n-2$   
 ii) Double monosomy                                      -            B)  $-2n+1$   
 iii) Nullisomy                                      -            C)  $2n-1-1$   
 iv) Trisomy                                      -            D)  $2n+3$   
 a) i-C, ii-D, iii-B, iv-A                      b) i-B, ii-C, iii-D, iv-A  
 c) i-C, ii-B, iii-A, iv-D                      d) i-D, ii-C, iii-A, iv-B
- 6) In which techniques Ethidium Bromide is used \_\_\_\_\_  
 a) Southern Blotting techniques                      b) Western Blotting techniques  
 c) Polymerase chain Reaction                      d) Agrose gel Electroporosis
- 7) If haploid number in a cell is 18. The double monosomic and trisomic number will be \_\_\_\_\_  
 a) 35 and 37                                      b) 34 and 35  
 c) 37 and 35                                      d) 17 and 19







(3)

XII BIOLOGY

Part - II Bio-Zoology

Marks: 35

Section - I

I. Choose the correct answer from the options given below and write the answer with option code:-  $8 \times 1 = 8$

- 1) The Androgen Binding protein (ABP) is produced by
  - a) Sertoli cells
  - b) Leydig cells
  - c) Pituitary gland.
  - d) Hypothalamus
- 2) The condition where the women do not have functional uterus is.
  - a) Down's syndrome
  - b) Mayer-Rokitansky syndrome
  - c) Patau's syndrome
  - d) Tunner's syndrome
- 3) The term Biogenesis was coined by
  - a) Oparin
  - b) Thomas Huxley
  - c) Haldane
  - d) Henry Bastian
- 4) The total number of nitrogenous bases in human genome is estimated to be about
  - a) 3.5 million
  - b) 3.0 billion
  - c) 35,000
  - d) 35 million
- 5) Which period was called "Age of fishes"?
  - a) Permian
  - b) Triassic
  - c) Devonian
  - d) Ordovician
- 6) The age of fossils can be determined by
  - a) Electron microscope
  - b) Carbon dating
  - c) Weighing the fossils
  - d) Analysis of bones
- 7) The Athlete's foot disease in human is called
  - a) Bacteria
  - b) Fungus
  - c) Virus
  - d) Protozoan
- 8) Spread the cancerous cells to distant sites is termed as
  - a) Metastasis
  - b) Oncogenes
  - c) Protooncogenes
  - d) Maligrant neoplasm



(4)

XII BIOLOGY

## Section - II

II. Answer any four questions:-

4×2=8

- 9) Who are called as secretors?
- 10) Draw a neat labelled diagram of Human ovum.
- 11) What are the risk factors for cervical cancer?
- 12) Write the scientific name of the filarial worm that causes filariasis. and how is this disease transmitted?
- 13) What are Coprolites?
- 14) List out the major gases seems to be found in the primitive earth.

## Section - III

III. Answer any three questions. Q.No.19 compulsory:

3×3=9

- 15) What is colostrum? Write its significance.
- 16) List the common withdrawal symptoms of drugs and alcohol abuse
- 17) Mention the symptoms of Phenylketonuria
- 18) State any three goals of Human Genome Project.
- 19) Write a note on Amoebiasis.

## Section - IV

IV. Answer the following questions in detail:

2×5=10

- 20) a) Write the different kinds of syngamy prevalent among living organisms. [or]  
b) Explain the structure of Immunoglobulin with a suitable diagram.
- 21) a) What are the applications of D.N.A. finger printing technique. [or]  
b) How does Hardy-Weinberg's expression. ( $P^2+2pq+q^2=1$ ) explain that genetic equilibrium is maintained in a population? List any four factors that can disturb the genetic equilibrium.

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