

*** 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) Wheat 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) Malignant neoplasm

(4)

XII BIOLOGY**Section - II****4×2=8****II. Answer any four questions:-**

- 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.
