

QUARTERLY EXAMINATION - SEP. 2023**BIOLOGY**

CLASS : XII

BIO-BOTANYReg.No :

TIME : 3.00

(Mark : 35)

TOTAL MARKS : 70

SECTION - I**Choose and write the correct answer.****8x1=8**

- Shield shaped cotyledon found in the embryo of Oryza seed is known as
a) Epithelium b) Scutellum c) Coleoptile d) Colerhiza
- The Scar left by funiculus in the seed is
a) tegmen b) radicle c) epicotyl d) hilum
- 'Gamete are never hybrid' This is a statement of
a) Law of dominance b) Law of independent assortment
c) Law of segregation d) Law of random fertization
- Double monosomy usually represented in ploidy as
a) $2n-1, 2n-1$ b) $2n+1+1$ c) $2n-1-1$ d) $2n-2$
- Which of the following sentences are correct?
1. The offspring exhibit some crossingover due to incomplete linkage
2. The Linked genes exhibit some crossing over in complete linkage
3. The sepearation of two linked genes ate possible in incomplete linkage.
4. Crossing over is absent in complete linkage
a) 1 and 2 b) 2 and 3 c) 3 and 4 d) 1 and 4
- Restriction enzymes are
a) Not always required in genetic engineering b) Essential tools in genetic engineering
c) Nucleases that cleave DNA at specific sites d) Both b and c
- In which techniques Ethidium Bromide is used?
a) Southern blotting techniques b) Western blotting techniques
c) Polymerase Chain Reaction d) Agrose Gel Electroporosis
- Solidifying agent used in plant tissue culture is
a) Nicotinic acid b) Cobaltous chloride c) EDTA d) Agar

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

- What is called Cantharophily?
- What is known as Colchicine?
- Define: Test cross
- What is called SCP?
- What are the protective agents are added before cryopreservation process?
- Define: Embryoids.

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

- Distinguish tenuinucellate ovule and Crassinucellate ovule
- Write the importance of variations.
- What is called genetic mapping? Mention its uses.
- Write the benefits of GM Foods. Mention the risks of them believed to. (Any two only)
- Write the advantages of Artificial Seeds.

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

- a) Explain the mechanism of crossing over (OR)
b) What is an Endosperm? Explain its types.
- a) Explain the basic concept involved in plant tissue culture . (OR)
b) Explain the difference types of ovules.

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

- Find the mismatch pair
a) Plasmotomy-Opalina b) Fragmentation-Sea Anemones
c) Strobilation-Amoeba d) Gemmule - Tapeworm
- The glandular accessory organ which produces the largest proportion of semen is
a) Seminal vesicle b) Bulbourethral gland c) Prostate gland d) Mucous gland
- Colostrum is rich in
a) Ig E b) Ig A c) Ig D d) Ig M
- A contraceptive pill prevents ovulation by
a) Blocking fallopian tube b) inhibiting release of FSH and LH
c) Stimulating release of FSH and LH d) causing immediate degeneration of released ovum
- Co-dominant blood group is
a) A b) AB c) B d) O
- Which of the following is the correct sequence of event with reference to the central dogma?
a) Transcription, Translation, Replication b) Transcription, Replication, Translation
c) Duplication, Translation, Transcription d) Replication, Transcription, Translation
- Where does genetic drift take place?
a) Large isolated population b) Non breeding population
c) Slow breeding population d) Small isolated population
- Select the correct answer matching the given diseases and disease causes pathogens.

Column - I		Column II	
(A) Typhoid	(i) Wuchereria bancrofti		
(B) Pneumonia	(ii) Plasmodium		
(C) Filaria	(iii) Salmonella		
(D) Malaria	(iv) Streptococcus		
(A)(B)	(C)	(D)	
a. (iii),	(iv),	(i),	(ii)
b. (ii)	(i),	(iii),	(iv)
c. (iv)	(i),	(ii),	(iii)
d. (i),	(iii),	(ii),	(iv)

SECTION - II**Answer any FOUR of the following question. Question number 14 is compulsory.****4X2=8**

- What is Plasmotomy?
- How is polyspermy avoided in humans?
- Differentiate foeticide and infanticide.
- What are holandric genes?
- List out the major gases which seem to be found in the primitive earth.
- How does saliva act in body defence?

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

- Draw a labeled sketch of a spermatozoan.
- Write the preventive measures of STDs.
- What is gonorrhoea?
- Differentiate Intersexes from Supersexes.
- List the common withdrawal symptoms of drugs and alcohol abuse.

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

- a) What are the strategies to be implemented in India to attain total reproductive health? (OR)
b) What is parthenogenesis? Explain the type of parthenogenesis?
- a) Explain the structure of immunoglobulin with suitable diagram. (OR)
b) Mention the main objections to Darwinism.