

COMMON QUARTERLY EXAMINATION- 2026

Bio-ZOLOGY

Class: XII

ANSWER KEY

Marks :- 35

I

Answer all the Questions :-

S.NO	ANSWER	MARK.
1,	B-IgA	1 Mark
2,	C-Amniocentesis.	1 Mark
3,	B-Plasma Cells.	1 Mark
4,	B-Transcription.	1 Mark
5,	D-Streptokinase	1 Mark
6,	A-Elphantiasis.	1 Mark
7,	D-All the above.	1 Mark
8,	C-A is Correct and R is false.	1 Mark.

SECTION -II

II

Answer any four questions :-

(4x2=8)

- 9, (i) Curd - LAB bacteria, (ii) Cheese - Lactococcus, } 2 marks.
(iii) Yogurt - Streptococcus thermophilus,
(iv) Paneer - Propionibacterium Shermani.

Virus.

- 10, (i) Male honey bee Produced by Parthenogenesis. (10)
(ii) Female honey bee Produced by Sexual reproduction. } 2 marks
- 11, **Leading strand** **Lagging strand**
- | | |
|--|--|
| (i) Template strand with Polarity $3' \rightarrow 5'$ is known as leading strand | (i) Coding strand with Polarity $5' \rightarrow 3'$ is known as lagging strand. (10) |
| (ii) Replication is Continuous | (ii) replication is discontinuous. (1 mark) |
- 12, (i) ELISA - Preliminary blood test. (detect HIV antibodies) } (2 marks)
(ii) Western blot - Confirmatory test (detect viral core Proteins).
- 13, (i) Vermiform appendix, (ii) Caecum, (iii) Wisdom teeth, } (2 marks)
(iv) ear muscle, (v) body hair, (vi) Mammary in male
(any four)
- 14, a) Copper releasing IUD. } (2 marks)
b) GIFT

Section - III
Answer any three question :- Q.NO: 19 is Compulsory (3x329)

- 15, (i) It is Currently tried for recycling of PET Plastic } 3 marks
(ii) These bacteria use PETase and MHETase to breakdown PET Plastic into terephthalic acid & ethanol.
- 16, **Bacteria** **Virus**
- | | | |
|---------------------|----------------------|--|
| (i) Causative agent | Neisseria gonorrhoea | Cervix affected, burning during urination. (1/2) |
| (ii) Symptoms | Genital warts | Tumour on Cervix and Perianal region. (1 1/2) |
- (Any other book related diseases)

17, (i) Once fertilization is accomplished, Cortical Granules from the Cytoplasm of the ovum form a barrier called the Fertilization membrane around the ovum Prevent entry of other Sperm. (3 marks)

18, (i) When three (or) more allele of a gene that control a Particular trait occupy the same locus on homologous chromosome of an organism, they are called Multiple allele. (2 marks)
(ii) Human ABO blood group (eg). (1 mark)

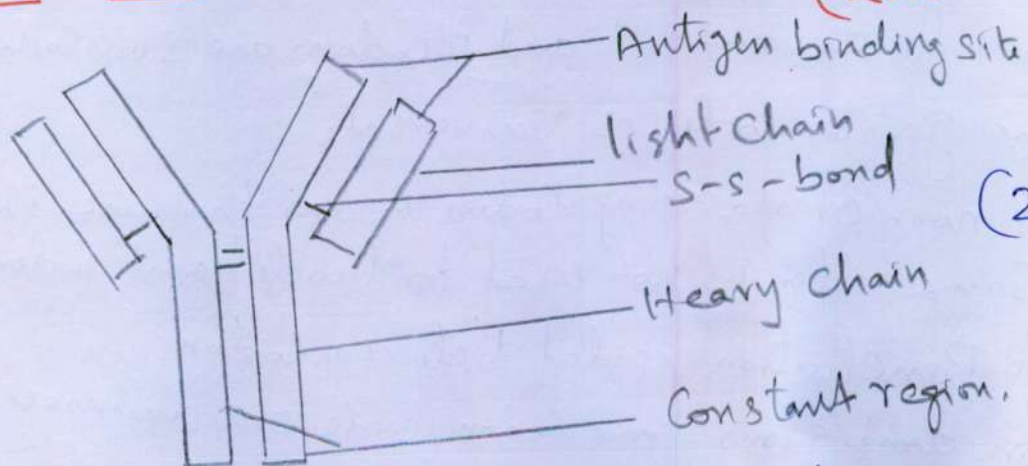
19, (i) Defective development of the CNS.
(ii) Increased Separation between the eyes.
(iii) Flattened nose, (iv) ears are Malformed,
(v) Mouth is Constantly open, (vi) tongue Protrudes. (3 marks)
(Any three)

IV

Section - IV

Answer in Detail:

20 (a)



(2 marks)

(i) An antibody molecule is a Y-shaped structure.
(ii) It is ComPrises of four Polypeptide chain.
(iii) 2 chains are called light chain with 25,000 Daltons weight.

- (iv) Other two Chain are Called heavy Chain with Molecular weight of 50,000 Da.
- (v) Both ^{heavy} Strand linked by S-S bond and light and heavy chain linked by S-S bond. Thus it is represented as H_2L_2 . (3 marks)
- (vi) Each Chain Consist of N and C terminal.

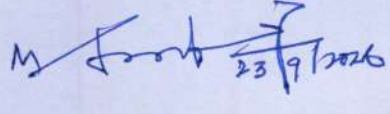
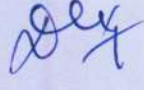
- b) (i) Darwin failed to explain the mechanism of variation. (OR)
- (ii) Explain only Survival of fittest but not arrival of fittest.
- (iii) He focused on small, non-inheritable variations. (5 marks)
- (iv) He did not distinguish between somatic and germinal variation.
- (v) He Could not explain vestigial organ and over specialization.

21. (a) The genetic Codon is a triplet and 61 Codon code for amino acid and 3 codons are stop Codon.
- (ii) The genetic code is universal.
- (iii) A non-overlapping Codon means that are the same letter is not used for two different Codon.
- (iv) No Punctuation needed between Codon.
- (v) Non-ambiguous - one Codon, code one amino acid.
- (vi) Degenerative Codon - More than one Codon, code a specific amino acid. (5 marks)
- (vii) AUG - dual Codon.
- (viii) UAA, UAG, UGA - stop Codons (any five).

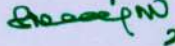
(OR)

- b7
- | | |
|-----------------|----------|
| (i) Amnion | - 2 Mark |
| (ii) Yolk Sac | - 1 Mark |
| (iii) allantois | - 1 Mark |
| (iv) Chorion, | - 1 Mark |

Signature of Subject Teacher:

- 1, Mr. Armstrong [VP Sir] -  23/9/2026
- 2, Mr. Senthil Kumar - M.S. Senthil
- 3, Mr. Rithiviraj - 

Signature of Head Master.

Mr. Nagarajan. -  24/9/26.