

Bio - Zoology (Marks : 35)**SECTION - A****I Choose the correct answer.**

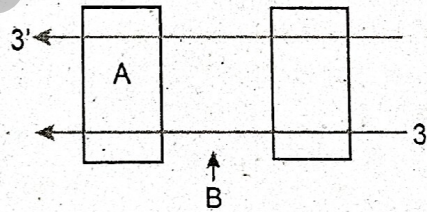
1 X 8 = 8

- The mode of reproduction in bacteria is by
a) Formation of gametes b) Endospore formation c) Conjugation d) Zoospore formation
- Colostrum is rich in
a) Ig E b) Ig A c) Ig D d) Ig M
- Match it.**
Column - 1
A POCSO Act
B Non-medicated IUDs
C Venereal diseases
D Copper releasing IUDs
a) A-III B-II C-I D-IV
b) A-III B-IV C-II D-I
c) A-II B-IV C-I D-III
d) A-I B-II C-III D-IV
- Column - 2**
I - Use condoms
II - Lippes loop
III - Sexual harassment at workplace
IV - Multiload 375
- Three children of a family have blood groups A, AB and B. What could be the genotypes of their parents?
a) $I^A I^B$ and $I^O I^O$ b) $I^A I^O$ and $I^B I^O$ c) $I^B I^B$ and $I^A I^A$ d) $I^A I^A$ and $I^O I^O$
- Meselson and Stahl's experiment proved
a) Transduction (b) Transformation
(c) DNA is the genetic material (d) Semi-conservative nature of DNA replication
- Who published the book "Origin of species by Natural Selection" in 1859?
a) Charles Darwin b) Lamarck c) Weismann d) Hugo de Vries
- Assertion:** Plasmodium vivax is responsible for malaria.
Reason: Malaria is caused by polluted water
a) Both A and B are true and B is the correct explanation of A
b) Both A and B are true but B is not the correct explanation of A
c) A is true but B is false d) A is false but B is true
- B cells that produce and release large amounts of antibody are called
a) Memory cells b) Basophils c) Plasma cells d) killer cells

SECTION - B**II. Give very short answer for any four.**

4 X 2 = 8

- What are interferons? Mention their role.
- List out the major gases that seem to be found in the primitive earth.
- Name the parts marked 'A' and 'B' in the given transcription unit:



- What are holandric genes?
- Expand the following. a) ZIFT b) ICSI
- Mention the differences between spermiogenesis and spermatogenesis.

SECTION C**III Give short answer any three (Question number 19 is compulsory).**

3 X 3 = 9

- Differentiate between the following:
(a) Budding in yeast and budding in *Hydra* (b) Regeneration in lizard and *Planaria*
- Give notes Filariasis.
- Mention the main objections to Darwinism.
- State any three goals of the human genome project.
- What are the applications of Karyotyping?

SECTION - D**III Describe the following question briefly. (Any Two)**

2 X 5 = 10

- Write the major tasks of 'Reproductive and Child Health Care (RCH) (OR)
Explain the various phases of the menstrual cycle.
- Explain the structure of immunoglobulin with a suitable diagram. (OR)
Explain the formation of a nucleosome.