

SAMPLE PAPER
CLASS XII BIOLOGY

TIME 3 HRS

MM - 70

Section A

(1X8=8)

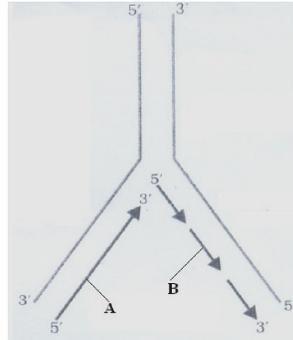
- 1) A plant was introduced in India because of its beautiful flowers & shape of leaves. It propagates vegetatively at a phenomenal rate and spread all over the water bodies and has become a threat. Which plant is being referred to? 1
- 2) A criminal case of 10 years old was registered for investigation. What samples they might have tested? 1
- 3) The health department would like to control malaria without using chemicals in any form. Being a student of Biology what method would you suggest? 1
- 4) Bottled juices are clearer compared to homemade juice. Give reason. 1
- 5) Which is a proteinaceous infecting agent? 1
- 6) On fermentation the dough of idli and dosa puffs up. Which metabolic pathway is responsible for this process? 1
- 7) Two closely related species competing for the same resources cannot co-exist definitely. State the principle which supports this phenomenon. 1
- 8) Can temperature regulate the rate of decomposition how? 1

Section B (2X10=20)

- 9) Which cell organelle is present in the neck of the sperm? What is its significance? 2
- 10) A point mutation leads to adverse change in the function of hemoglobin (B-globin chain). Identify the disease that may occur due to this mutation. Mention the change of amino acids in the polypeptide due to this mutation. 2
- 11) Study the following pairs of organs and identify them as homologous or analogous organs: 1/2X4= 2
- i) Thorns of Bougainvillea and cucurbit tendrils.
 - ii) Fore legs of horse and arms of man
 - iii) Wings of bat and butterfly
 - iv) Flipper of whale and fins of fish

21) A man with blood group A married a woman with B group, they have a son with AB blood group and a daughter with blood group O, work out the possibility of inheritance with the help of a Punnet square. 3

22)



- Name fragment A) & B)
- Name the process of given diagram
- In what phase of cell cycle this process takes place.

23) A patient has lost his immunity. 3

- Name the disease associated with it.
- Name the confirmatory test to diagnose the disease.
- Why did he lose his immunity?

24) Following are the steps for breeding process. Arrange them in correct order, name the process & state its advantages. 3

- The female is mated with a male of good variety
- The fertilized egg at 8-32 called stage are recovered & transferred to surrogate mother.
- The female is administered hormones to induce super-ovulation.

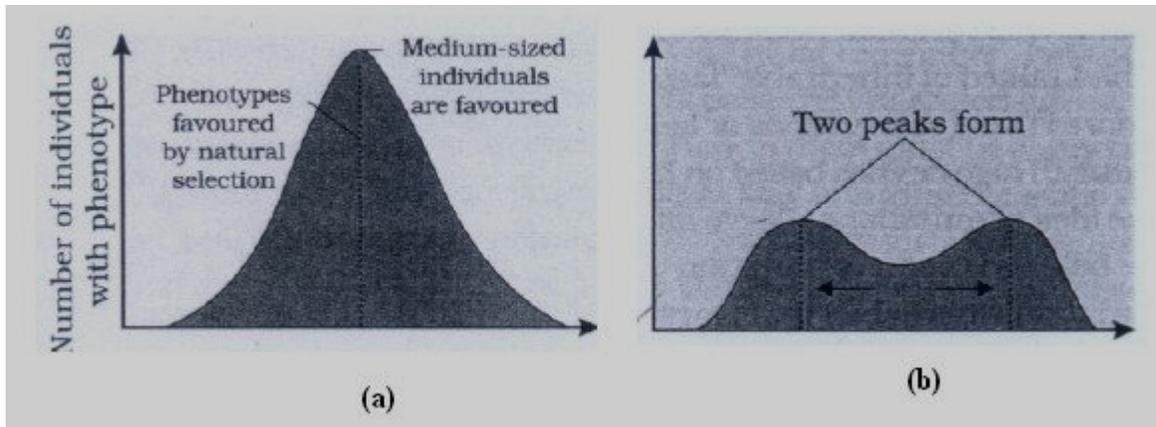
25) For what significant properties the Baculoviruses are considered as best Biological control agent?. Mention its importance in organic farming.

26) Give the correct term for the following; -

- Replacing a defective mutant allele with a normal functional allele / gene.
- Increasing the copies (content) of a gene
- Preventing m-RNA translation
- Specific pattern of base pairs that are recognized by restriction enzymes.

or

1) Study the figures (a) and (b) given below and answer the question given after the graph 5



i) Under the influence of which type of natural selection would graph (a) become like graph(b) 3

ii) What could be the likely reasons of new variations arising in the population?

iii) Who suggested natural selection as a mechanism of evolution?

30) In England, after industrialization it was observed that white winged moth did not survive. 2

i) What you think the cause may be?

ii) What was the change and why it has happened?

iii) Which organism is known as natural indicator to air pollution?