

**KENDRIYA VIDYALAYA SANGATHAN, ERNAKULAM REGION**

**SECOND PRE BOARD EXAMINATION 2012-13**

**CLASS XII - BIOLOGY**

TIME; 3 HRS

MAX.MARKS:70

General Instructions:

- i. All questions are compulsory.
- ii. This question paper consists of four Sections A, B, C and D. Section A contains 8 questions of one mark each, Section B is of 10 questions of two marks each, Section C is of 9 questions of three marks each and Section D is of 3 questions of five marks each.
- iii. There is no overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and two questions of 5 marks weightage. A student has to attempt only one of the alternatives in such questions.
- iv. Wherever necessary, the diagrams drawn should be neat and properly labelled.

Section A

1. The body size of crow and parrot are not very different, yet their life span shows wide difference. Write their life span.
2. In a monohybrid cross the F<sub>2</sub> generation shows identical phenotypic and genotypic ratios. What does it tell us about the nature of alleles involved?
3. Bio fortification is the most practical approach to improve the health of people. Give two examples of bio fortified vegetable crops released by IARI, New Delhi.
4. Crystals of Bt toxin produced by some bacteria do not kill the bacteria themselves. Give reason.
5. In which technique do we use Taq polymerase enzyme?
6. Why is the introduction of genetically engineered lymphocytes into an ADA deficient patient not a permanent cure?
7. When and why do some animals like snails go into aestivation?
8. State the consequence, if the electrostatic precipitator of a thermal plant fails to function.

Section B

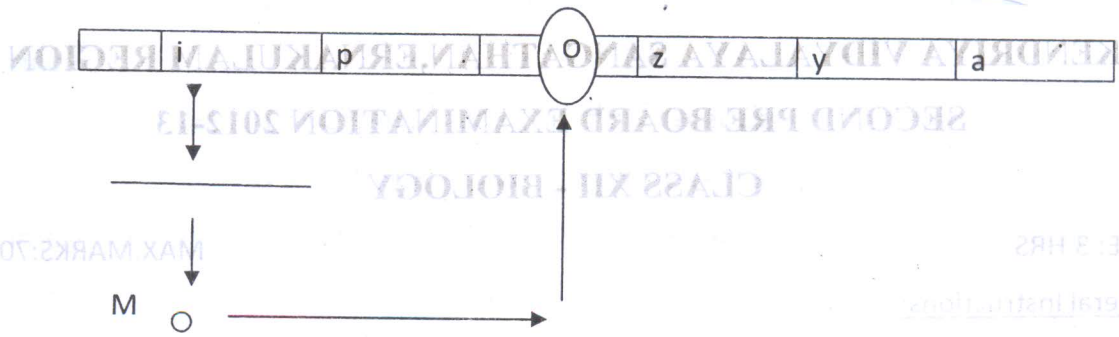
9. Name the contraceptive developed by CDRI Lucknow. What are its special features as compared to other contraceptives.
10. What is polygenic inheritance? Give two examples

OR

Who proposed embryological evidence for organic evolution?

State the Biogenetic law.

11.



- Name the molecule M that binds with the Operator.
- Mention the consequences of such binding

12. Why are both the strands of DNA not transcribed?

13. Identify A, B, C and D in the table given below

Microbes	Product	Biological activity	Medical ailment/ procedure
A	Streptokinase	Clot Buster	D
Trichodermapolysporum	B	C	Transplant surgery

14. What is C-peptide? Why is this peptide absent in mature Insulin?

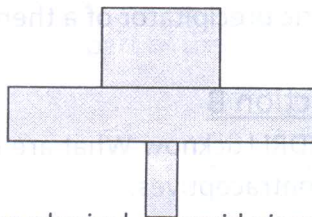
15.a. Bioreactors are used to obtain the foreign gene products in large quantities.

Name two important types of Bioreactors

b. Write the function of stirrer in a bioreactor

16. Giving two reasons, explain why there is more species diversity in tropical latitudes than in temperate ones

17.



Identify the type of ecological pyramid given above. Give one example each for pyramid of number and pyramid of biomass of the above type.

18. The luxuriant growth of blue green algae forms algal bloom in a water body. Write two negative impacts of algal bloom.

