Subject-BIOLOGY
Time allowes-3 hours

Class-XII Max Marks-70

General Instructions:-

- 1-This paper consists of four section
 - i- Section-A contains 8 questions of 1 mark each
 - ii- Section B is of 10 questions of 2 mark each
 - iii- Section C is of 9 questions of 3 mark each
 - iv- Section D is of 3 questions of 5 mark each.
- 2- All questions are compulsory.
- 3-There is no overall choice however an internal choice is given in one question of 2 mark, one question of 3 mark and in all question of 5 marks weightage.
- 4-Question 1 to 8 are to be answered in one word or one sentence each.
- 5-Question 9 to 18 are to be answered in approximately 20 to 30 words each.
- 6-Question 19 to 27 are to be answered in approximately 30 to 50 words each.
- 7-Question 28 to 30 are to be answered in approximately 80 to 120 words each.

CECTION A

SECTION-A

- 1- Which plant is known as scourage of the water bodies or terror of Bengal.
- 2- For what purposes Oral contraceptive are prescribed to female.
- 3- Which one is paired correctly
 - A- Central dogma ----Codon
- B- Okazaki fragments ----splicing
- C- Restriction enzyme -----Genetic engineering
- 4-Which one is correct pathway of energy flow in a system.
 - A- Producer \rightarrow Carnivores \rightarrow Herbivores \rightarrow Decomposers
 - B- Producer → Herbivores → Carnivores → Decomposers
- 5- How many different gamete classes are produced by Tetrahybride. AaBbCcDd
- 6-What do the biological term used to the plants which grows in low light intensities.
- 7- Name the theory which do attempt to explain the origin of life.
- 8-Who was commonly nicknamed as "Typhoid Marry"

SECTION-B

- 9- What is the age group where STDs are reported very high .Mention any two practices to avoid them.
- 10- How do Back cross is different from Test cross?
- 11- The somatic cells of higher organisms contain five major histone classes.

List them. What are the specific properties to be function?

OR

List four criteria of essential requirement for genetic material.

- 12- What is metastasis? Write any four danger signals of cancer.
- 13- Complete the following with specific reason.

S.No	Column-I	Column-II
1-		test to diagnose typhoid fever
2-	Diphtheria	causal agent
3-	transmitted	Byto complete life cycle
		of plasmodium
4-	antibody-mediated	cells are responsible
	immunity	

- 14- What is sewage? In which way the sewage is harmful to us.
- 15- In which food would you find more lactobacillus bacteria. Write some of their Useful applications.
- 16- What is recombinant DNA technology? Write two example of its applications.
- 17- What kind of adaptation a suckerfish and shark fish has? Show with the help of diagrams.
- 18- How does succession differ in terrestrial and aquatic system? Give four points.

SECTION-C

- 19- What is blastocyst? Describe the process of cleavage. Draw diagram also.

 OR

 Draw a structure of human sperm. Label its five parts and explain their specific function.
- 20- What is incomplete dominance? Name one plant and show the progeny by
- 21- Which trait is responsible to lead the disease phenylketonuria? What happens to the affected individual.

Cross between plants with pink and state their phenotypes

- 22- How did the Galapagos finches contribute to the development of Darwin's Idea .
- 23- What is meant by the term breed? Write the objectives of animal breeding.
- 24- How are DNA fragments are separated by gel electrophoresis?
- 25-What do you understand by Transgenic crop. Write two advantages of this

technique.

- 26- What is adenosine deaminase deficiency (ADA)? Write some approaches for ADA treatment.
- 27- What are sacred groves? How do they are playing its specific role in conservation.

SECTION-D

28- What do you mean by megasporogenesis. With a neat labeled diagram explain 7 celled, 8 nucleate nature of the female gametophyte.

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What is embryogeny? Briefly describe the process of development of dicotyledonous embryo.

29- What explanation for Griffith"s observation was given by Avery, McCarty and Mac Leod to show that DNA is the genetic material.

OR

What is meant by semi-conservative mode of DNA replication? How did Meselson and Stahl prove this.

30- What is meant by Air pollutant? What do the Primary air pollutant effects do they produce. Explain with example.

OR

What is biological magnification? How does DDT as a water pollutant undergo in biological magnification.

ANUP YADAV PGT BIOLOGY JAWAHAR NAVODAYA VIDYALAYA DEVRALA DISTT. BHIWANI HARYANA Ph No. 01253281536,281855
