

**PUNJAB BOARD CLASS 12 BIOLOGY (A)
PREVIOUS YEAR PAPER- 2018**

Roll No.....

Total No. of Questions: [26]

054/A

Total No. of Printed Pages: 8

SS
2038

ANNUAL EXAMINATION SYSTEM

BIOLOGY(Theory)

(Evening Session)

Time : Three Hours]

[Maximum Marks : 70

(English Version)

Note: (i) You must write the subject-code/paper-code 054/A in the box provided on the title page of your answer-book.

(ii) Make sure that the answer-book contains 30 pages (including title page) and are properly serialied as soon as you receive it.

(iii) Question/s attempted after leaving blank pages in the answer-book would not be evaluated.

(iv) Draw well labelled diagrams, wherever necessary.

(v) The paper comprises of 26 questions.

(vi) Question Nos. 1 to 8 are of one mark each. All questions are compulsory.

(vii) Question Nos. 9 to 16 are of two marks each. All questions are compulsory.

(viii) Question Nos. 17 to 23 are of four marks each. All questions are compulsory

however there is internal choice only in Question no. 22 and 23.

(ix) Question Nos. 24 to 26 are of six marks each. There will be internal choice in them.

PUNJAB BOARD CLASS 12 BIOLOGY (A) PREVIOUS YEAR PAPER- 2018

1. What is Menarche ? 1
2. Define Pleiotropy. 1
3. Name the Bacteria which acts as Natural Genetic Engineer. 1
4. What are Sciophytes ? 1
5. Vegetative propagation in onion occurs by 1
(a) Offset (b) Bulb (c) Sucker (d) Rhizome
6. Genetic disorder due to trisomy of chromosome 21 in humans is 1
(a) Down's Syndrome (b) Klinefelter's Syndrome
(c) Turner's Syndrome (d) None of the above
7. HIV decreases natural immunity of the body by destroying 1
(a) Erythrocytes (b) Antibodies
(c) T-Lymphocytes (d) B- Lymphocytes
8. Photochemical smog contains 1
(a) PAN (b) Ozone
(d) Nitrogen dioxide (e) All of the above
9. What is emasculation? How is it useful in plant breeding program? 2
10. Aman with blood group "A" marries a woman with blood group "B". What will be the genotype of man and woman, if one of their child is born with blood group "O"? Show the type of progeny formed with the help of punnett square. 2

PUNJAB BOARD CLASS 12 BIOLOGY (A) PREVIOUS YEAR PAPER- 2018

11. What do you mean by incomplete dominance ? Give example. 2
12. Name any one symbiotic nitrogen fixing bacteria. How does it help in nitrogen fixation ? 2
13. "Liver suffers most from excessive drinking". Discuss on the statement. 2
14. What is the role of Ori for cloning vector ? 2
15. Briefly write about Biopiracy. 2
16. Briefly explain the ecological pyramid which is always upright. 2
17. In case of an infertile couple male has abnormally low sperm count in ejaculation. Also Female has blocked oviducts and has spermicidal secretions in vagina but can provide suitable environment for development of embryo. Suggest and explain the assisted reproductive technology (ART) useful to this couple. 4
18. What is Human genome project ? Briefly write about the salient features of Human Genome project. 4
19. Briefly discuss 2+2
(a) Biofortifications (b) Role of microbes in household food processing.
20. Explain any two methods for introduction of recombinant DNA into host cell. 4
21. Define phenotypic adaptation. Also give one example. 4
22. Write about the cause, symptoms and modes of transmission of Amoebiasis. 4
- Or
- (a) Write any two points of difference between B-Lymphocytes and T-Lymphocytes.
- (b) What are different causes of cancer?
23. Expand PCR. How it helps in amplification of gene of interest. 4

Or

What do you mean by GM organisms? Mention any three advantages of GM organisms.

**PUNJAB BOARD CLASS 12 BIOLOGY (A)
PREVIOUS YEAR PAPER- 2018**

24. Explain the development of female gametophyte in angiosperms. Illustrate the answer with suitable diagrams. 6
or

What is fertilization ? In which part of Human female reproductive system does it occurs

? Explain diagrammatically various physical and chemical events of fertilization in humans.

25. Define DNA Replication. In which phase of cell cycle does replication occur in Eukaryotes ? Describe briefly the mechanism of DNA replication. 6

or

- (a) Give an example of Connecting Link
- (b) What is divergent evolution ? Give example.
- (c) State and explain Hardy Weinberg's Principle.

26. What is ecosystem ? Discuss its different components with specific example of pond as an ecosystem. 6

or

Describe various causes of loss of biodiversity.