

Roll No. ....

054

Total No. of Questions : 26 ]

[Total No. of Printed Pages : 3

SS  
2067

**PSEB CLASS 12 MODEL PAPER-SET 1**

**BIOLOGY (Theory)**

**(English Version)**

**(Evening Session)**

Time allowed : Three hours

Maximum marks : 70

*Note : (i) You must write the subject-code/paper-code 054 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 serialized as soon as you receive it.*

*(iii) Question/s attempted after leaving blank page/s 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.*

**Attempt all questions 1 to 8.**

1. Ginger is multiplied vegetatively by means of

- (a) Bud (b) Tuber (c) Corm (d) Rhizome

2. Ovulation is induced by a hormone called \_\_\_\_\_ 1

3. What would be the disorder caused due to presence of extra autosomal chromosome ?

4. Who proposed one – gene one enzyme hypothesis ? 1

5. Expand SCID. 1
6. Name the compound which is used to stain the DNA fragments. 1
7. Who coined the term ecology ?
8. Name the unit to measure noise pollution.

**Attempt all questions 9 to 16**

9. Differentiate between gametogenesis and embryogenesis. 2
10. Define vestigial organ. Give one example. 2
11. What is linkage ? Give two factors affecting linkage. 2
12. Name the pathogen that causes ‘pneumonia’ and modes of transmission. 2
13. What are biofertilizers ? What are the main sources of biofertilizers ? 2
14. How is *Bacillus thuringiensis* useful in biocontrol of insect pests ? 2
15. Write a note on Bt cotton. 2
16. What is acid rain ? What are its effects on plants ? 2

**Attempt all questions 17 to 23**

17. Draw well-labelled diagram of female reproductive system. 4
18. What is co-dominance ? Explain it with the help of an example. 4
19. Differentiate between cancerous cells and normal cells. 4
20. Name the causal agent of ‘‘filariasis’’. Write its symptoms and prophylaxis. 4
21. Discuss the role of Microbes as biofertilizers. 4
22. What is alcoholism ? Explain ill-effects of alcohol on different parts of body. 4

( 3 )

or

Explain the terms

(a) Callus (b) Micro-propagation 4

23. (a) Write a brief account of genetically engineered insulin.

(b) What are exonucleases and endonucleases.

or

Describe the various biotechnological applications in agriculture. 4

Attempt all questions 24 to 26

24. With a neat labelled diagram describe the parts of a typical angiosperm ovule.

or

(a) What is parturition ? Name the hormone involved in induction of parturition.

(b) Write function of :

(i) Corpus luteum (b) Endometrium (c) Acrosome 6

25. Describe Meselson's and Stahl's experiment to prove that DNA replication is semi-conservative.

or

(a) With the help of simple sketch show the action of restriction enzyme.

(b) Show with a sketch of E-coli cloning vector showing restriction sites. 6

26. Define air-pollution and explain the primary pollutants. What are the ill effects of air pollution?

or

Explain :

(a) Catalytic converter

(b) Ex-situ conservation

(c) Pyramid of Bio-mass.