12 R

Register No.

First Revision Examination - 2024

BIOLOGY

Time : 3.00 Hrs. Marks : 70

BIO - BOTANY

PART - A

I. (i) Answer all the questions. **8x1=8**

1. **An eminent Indian embryólogist is**
   a) S. R. Kashyap b) P. Maheswari c) M. S. Swaminathan d) K.C. Mehta
2. Which one of the following is an example of polygenic inheritance?
   a) Flower colour in mirabilis jalapa b) Production of male honey bee c) Pod shape in garden pea d) Skin colour in humans
3. Due to incomplete linkage in maize the ratio of parental and recombinants are?
   a) 50: 50 b) 7: 1: 1: 7 c) 96.4: 3.6 d) 1:7: 7: 1
4. The prevention of large scale loss of biological interity
   a) Biopatent b) Bioethics c) Biosafety d) Biofuel
5. One green house gas contributes 14% of total global warming and another contributes 6%. These are respectively identified as
   a) N_2O and CO_2 B) CFCs and N_2O c) CH_4 and CO_2 d) CH_4 and CFCs
6. New world species of cotton
   a) Gossipium arborelum b) g. herbaceum c) Both a and b d) g. barbadense
7. The unit for measuring ozone thickness
   a) Joule b) Kilos c) Dobson d) Watt
8. Eco system consists of
   a) decomposers b) Producers c) Consumers d) All of the above

PART - B

Note: Answer any four questions. **4x2=8**

9. What are the disadvantages of self pollination?
10. What are the materials used to grow micro organisms like spirulina?
11. What is phytoremediation?
12. Pyramid of energy is always upright. Give reason?
13. What are the steps in Hybridization?
14. Give definitions for organic farming?

PART-C

Note: Answer any three questions. Question No. 19 is compulsory. **3x3=9**

15. Differentiate incomplete dominance and co-dominance.
16. What is gene mapping? Write its uses?
17. Given an account on Cryopreservation?
18. Differentiate primary introduction from secondary introduction.
19. Draw the flow chart on bio diversity conservation.

PART-D

Note. Answer all the questions. **2x5=10**

20. a) With a suitable diagram explain the structure of an ovule? (OR)
    b) Mention the application of Bio technology.
21. a) Enumerate the anatomical adaptations of xerophytes. **(OR)**
    b) How will you prepare an organic pesticide for your home garden with the vegetables available from your kitchen?

BIO - ZOOLOGY (35 MARKS)

PART - I

NOTE: (i) Answer all the questions. **8 x 1 = 8**

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

1. Who proposed the Germplasm theory?
   a) Darwin b) August Weismann c) Lamarck d) Alfred Wallace
2. The male sex hormone testosterone is secreted from
   a) Sertoli cells b) Leydig cell c) Epididymis d) Prostate gland
3. Allergy involves
   a) IgE b) IgG c) Ig d) IgM
4. In which mode of reproduction variations are seen
   a) Asexual b) Parthenogenesis c) sexual d) Both (a) and (b)
5. Co-dominant blood group is
   a) A b) AB c) B d) O
6. The most common substrate used in distilleries for the production of ethanol is _____
   a) Soya meal b) Ground gram c) Molasses d) Corn meal
7. Conservation of biodiversity with their natural habitat is
   a) Insitu conservation b) Exsitu conservation c) In vivo conservation d) Invitro conservation
8. In the E-waste generated by the mobile phones, which among the following metal is most abundant?
   a) Copper b) Silver c) Palladium d) Gold

PART - II

Answer any four of the following questions: **4 x 2 = 8**

9. What is parthenogenesis? Give two examples from animals.
10. Mention the symptoms of Downs syndrome.
11. List out the major gases seems to be found in the primitive earth.
12. What is biological oxygen demand?
13. Define: Endemism.
14. What is soil permeability?

PART - III

Answer any 3 of the following in which question No 18 is compulsory. **3 x 3 = 9**

15. Expand the following.
    a) ZIFT b) ICSI c) FSH
16. Draw a labeled sketch of a human ovum.
17. State any three goals of the human genome project.
18. "Amazon forest is considered to be the lungs of the planet"-Justify this statement.
19. Write notes on the following:
    a) Eutrophication b) Algal Bloom

PART-IV

Answer all the question: **2x5=10**

20. a) Explain the various phases of the menstrual cycle.
    (OR)
    b. Explain the formation of a nucleosome.
21. a) Explain the structure of immunoglobulin with suitable diagram.
    (OR)
    b) Explain how recombinant Insulin can be produced.

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Register No

First Revision Examination - 2024

COMPUTER SCIENCE

Time 3.00 Hrs Marks 70

I. Choose the correct answer. **(15x1=15)**

1. The values which are passed to a function definition are called
   a) Arguments b) Subroutines c) Function d) Definition
2. Which of the following is a compound structure?
   a) Pair b) Tuple c) Single d) Quadrat
3. Which members are accessible from outside the class?
   a) Public members b) Protected members c) Secured members d) Private members
4. The complexity of linear search algorithm is
   a) O(n) b) O(log n) c) O(n2) d) O(n log n)
5. Which operator is also called as comparative operator?
   a) Arithmetic b) Relational c) Logical d) Assignment
6. Which amongst this is not a jump statement?
   a) for b) pass c) continue d) break
7. In which arguments the correct positional order is passed to a function?
   a) Required b) Keyword c) Default d) Variable-length
8. Which of the following operator is used for concatenation?
   a) + b) & c) * d) =
9. Which of the following Python function can be used to add more than one element within an existing list?
   a) append() b) append_more() c) extend() d) more()
10. Which of the following method is used as destructor?
    a) _init_() b) _dest_() c) _rem_() d) _del_()
11. Who developed ER model?
    a) Chen b) EF Codd c) Chend d) Chand
12. Which command lets to change the structure of the table?
    a) SELECT b) ORDER BY c) MODIFY d) ALTER
13. What does _name_ contains?
    a) c++ filename b) main() name c) python filename d) os module name
14. Which of the following is an organized collection of data?
    a) Database b) DBMS c) Information d) Records
15. Identify the package manager for Python packages, or modules.
    a) Matplotlib b) PIP c) plt.show() d) python package

II. Answer any 6 questions. 24 is a compulsory question. **(6x2=12)**

16. What is a Pair? Give an example.
17. What is Mapping?

18. What is a literal? Explain the types of literals.
19. How to set the limit for recursive function? Give an example.
20. What will be the output of the following python code?

```
Strl = "School"
print(strl*3)
```

21. How will you create constructor in Python?
22. What is use of next() function?
23. Which method is used to fetch all rows from the database table?
24. List the general types of data visualization.

III. Answer any 6 questions. 33 is a compulsory question. **(6x3=18)**

25. Why strlen is called pure function?
26. Which strategy is used for program designing? Define that strategy.
27. What are the factors that influence time and space complexity.
28. Write short notes on Arithmetic operator with example.
29. Write a program to display:

```
A
A B
A B C
A B C D
A B C D E
```

30. Write a short about the followings with suitable example.
    (a) capitalize() (b) swapcase()
31. Write any three DDL commands.
32. What is MinGW? What is its use?
33. What is the use of Where Clause? Give a python statement using the Where Clause.

IV. Answer all the questions. **(5x5=25)**

34. a) What are called parameters and write a note on:
    (i) Parameter without Type (ii) Parameter with Type **(OR)**
    b) Write any five benefits in using modular programming.
35. a) Explain input() and print() functions with examples. **(OR)**
    b) Write a program to display multiplication table for a given number.
36. a) Explain the scope of variables with an example. **(OR)**
    b) Explain the different set operations supported by python with suitable example.
37. a) Differentiate DBMS and RDBMS. **(OR)**
    b) Differentiate Excel file and CSV file.
38. a) Explain each word of the following command.
    Python<filename.py>-<i><C++ filename without cpp extension> **(OR)**
    b) Explain the various buttons in a matplotlib window.