

2SM

**SECOND MID TERM TEST - 2019****12 - STD****BIOLOGY**

Time : 1.30 hrs

Marks : 50

**BIO - BOTANY (25 MARKS)****PART - I****I Answer all the questions.**

5 X 1 = 5

1. Depletion of which gas in the atmosphere can lead to an increased incidence of skin cancer?  
a) Ammonia                      b) Methane  
c) Nitrous oxide                d) Ozone
2. Find out the wrong pair  
a) Hot spots                      - western ghats  
b) Ex-situ conservation        - zoological park  
c) Sacred groves                - Saintri hills of Rajasthan  
d) Alien species                 - Zizyphus
3. Which of the following ecosystem has the highest primary productivity  
a) Pond ecosystem                b) Lake ecosystem  
c) Grass land ecosystem        d) Forest ecosystem
4. 100 joules of energy is stored as chemical energy through photosynthesis. How much of energy is stored in second consumer  
a) 900 joules    b) 10 joules    c) 1 joules    d) 0.1 joules
5. Biogenesis refers to  
a) Fossils            b) water            c) population            d) soil

**II Answer any two questions.**

2 X 2 = 4

6. What are eurythermal and stenothermal conditions?
7. Pyramid of energy is always upright? Why?
8. What is ten percent law?
9. What is Ozone Hole?
10. What is Carbon Capture?

**III Answer any two questions.**

2 X 3 = 6

11. How do forests help in maintaining the climate?
12. What is Alien species? Give two examples.
13. What are food chains? Write the types.
14. What is Albedo effect? Write its effect.

**IV Answer both the questions.**

2 X 5 = 10

15. Describe dispersal of fruit and seeds by animals and mention the advantages of seed dispersal. (OR)

Where as you a student how will you help to protect ecosystem?

16. What are the objectives of afforestation and write benefits of agro forestry. (OR) Which gas is most abundant green house gas? Write the effects of this gas on the growth of the plant.

## BIO - ZOOLOGY (25 MARKS)

## PART - I

## I Choose the correct answer.

5 X 1 = 5

1. Dolly the sheep was obtained by a technique known as .....
  - a) cloning by gene transfer
  - b) cloning without the help of gametes
  - c) cloning by tissue culture of somatic cells
  - d) cloning by nuclear transfer
2. How many amino acids are arranged in the two chains of Insulin?
  - a) Chain A has 12 and chain B has 13 amino acids
  - b) Chain A has 21 and chain B has 30 amino acids
  - c) Chain A has 20 and chain B has 30 amino acid
  - d) Chain A has 12 and chain B has 20 amino acid
3. Which of the following is considered a hotspots of biodiversity in India?
  - a) Western ghats
  - b) Indo - gangetic plain
  - c) Eastern Himalayas
  - d) A and C
4. Transgenic animals are those which have
  - a) Foreign DNA in some of their cells
  - b) Foreign DNA in all their cells
  - c) Foreign RNA in some of their cells
  - d) Foreign RNA in all their cells
5. Conservation of bio diversity within their natural habitat is
  - a) Insite conservation
  - b) Exite conservation
  - c) In vivo conservation
  - d) In vit conservation

## II Answer any two very short answers questions.

2 X 2 = 4

6. Explain how 'Rosie' is different from a normal cow?
7. ELISA is a technique based on the principles of antigen antibody reactions can this technique be used in the molecular diagnosis of a genetic disorder such as Phenylketonuria?
8. What are transgenic animals? Give examples.
9. What are called endangered species? Explain with examples.

2 X 3 = 6

## III Answer any two questions.

10. What are DNA vaccines?
11. Differentiate between somatic cell gene therapy and germtine gene therapy.
12. Explain why cloning of Dolly, the sheep was such a major scientific break through
13. How can we contribute to promote biodiversity conservation?

2 X 5 = 10

## IV Answer all the question.

14. Explain how ADA deficiency can be corrected? (OR)  
Mention the advantages and dis advantage of cloning?
15. Mention the major threats to biodiversity caused by human activities explain.  
(OR) List out the various causes for bio diversity losses.