

Register Number

B.TECH. DEGREE EXAMINATIONS: NOVEMBER 2009

Second Semester

BIOTECHNOLOGY

U07BT201: Applied Biology

Time: Three hours

Maximum Marks: 100

Answer ALL the Questions:-

PART A (10 x 1 = 10 Marks)

1. Mass of undifferentiated cells called _____
(a) Callus (b) Tissue (c) Cancer (d) Explant
2. The conversion of D-glyceraldehydes into an aldotetrose yields called _____
(a) Isomerase (b) Diastereoisomers (c) Epimers (d) a and c
3. Capsomere is a protein of _____
(a) Capside (b) Spike (c) Cilia (d) Tail
4. Power house of the plant is _____
(a) Mitochondria (b) chlorophyll (c) Golgi bodies (d) b and c
5. The enzyme Maltase secreted by _____
(a) Gastric glands (b) Pancreas (c) Intestinal gland (d) Thyroid gland
6. What is the structure of calyces of kidney _____
(a) Oval (b) Cone (c) Cup- like (d) Coil
7. The dark reaction of photosynthesis is takes place in _____
(a) Stroma (b) Grana (c) Cell membrane (d) Thilakoids.
8. A diploid with duplicate sets of three different genomes _____
(a) Haterosis (b) Heocaloid (c) Diplioid (d) Homophilia
9. Protection of Fanna and flora outside of natural habitats called _____
(a) Sanctuaries (b) In – site conservation (c) Ex- silu conservation (d) Botanical gardens
10. _____ is number of deaths per thousand populations per year
(a) Death rate (b) Infant mortality rate (c) poverty (d) Crude death rate

PART B (10 x 2 = 20 Marks)

11. Distinguish between a nucleoside and Nucleotide.
12. Define operational Taxonomic unit
13. What are prions?

14. What are the differences between lower protists and higher protists?
15. Define phosphorylation.
16. What is Nociceptor?
17. Define Plasmodesmata.
18. How test cross is distinguished from back cross?
19. Define Mortality.
20. What are the features of Lithosphere?

PART C (5 x 14 = 70 Marks)

21. (a) Explain the molecular structure of DNA with diagram.
(OR)
(b) Explain the Evidence for evolution from DNA and Embryology with example.
22. (a) Explain multiplication of virus with suitable diagram.
(OR)
(b) Explain the structure of coelom and how it differs from Non- coelom.
23. (a) Explain the structure and function of human kidney.
(OR)
(b) (i) Explain sexual reproduction in Dicot plants
(ii) Explain the mechanism of microbial movement
24. (a) Explain the light reaction of photosynthesis.
(OR)
(b) (i) Explain law of segregation with an example.
(ii) Differentiate Anabolism from catabolism.
25. (a) Explain Biogeocycle of N.
(OR)
(b) Explain in-situ conservation of an ecosystem

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