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BRAINWARE UNIVERSITY

Term End Examination 2023

Programme – B.Sc.(MLT)-2020/B.Sc.(MRIT)-2020

Course Name – Biotechnology and Human Welfare

Course Code - GEBT301

(Semester III)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) Which one of the followings is optimal byproduct obtain during glucose fermentation?

- a) CO₂
- b) EtOH
- c) DDGS
- d) All of these

(ii) Symptoms of cold stress in plants

- a) Desiccation or burning of foliage
- b) Water soaked areas that prolongs to necrosis
- c) Weakened root system or split bark
- d) all of these

(iii) Example of chemical stress are

- a) herbicides
- b) wind
- c) chilling
- d) Radiation

(iv) Enzyme generally function by

- a) substrate production
- b) increasing activation energy
- c) reducing activation energy
- d) bond breaking in product

(v) The pigment present in Root nodule

- a) hemoglobin
- b) Leg-hemoglobin
- c) Myoglobin
- d) carbamino haemoglobin

(vi) Examples of agrowaste

- a) fats
- b) oil waxes
- c) cellulose
- d) all of these

(vii) Mechanism of biodegradable polymers are

- a) Hydrolysis
- b) Enzymatic degradation
- c) Combination
- d) All of these

(viii) Name the start codon of amino acid synthesis

- a) UUA
- b) AUG
- c) UUU
- d) AGU

- (ix) How many structural forms exist of native protein?
 a) 6 b) 2
 c) 4 d) 3
- (x) The raw material used in bio-ethanol production is
 a) Protein b) Lipids
 c) Plant hormone d) Sugar
- (xi) Which group is available at the N-terminal site of amino acids?
 a) NH₂ b) COOH
 c) CONH d) H₂
- (xii) The optimal byproduct obtained during glucose fermentation?
 a) CO₂ b) EtOH
 c) DDGS d) All of these
- (xiii) The percentage of fungal resources used for optimum enzyme production is?
 a) 22 b) 60
 c) 4 d) 40
- (xiv) The site of Amino acid synthesis
 a) Mitochondria b) Nucleus
 c) Lysosome d) Ribosome
- (xv) Point mutation refers to
 a) Chromosome deletion b) Chromosome addition
 c) DNA base injury d) None of these

Group-B

(Short Answer Type Questions)
(Answer any Five from the following)

3 x 5=15

2. Discuss the process of patent application. (3)
3. Write about the application of forensic science. (3)
4. State the principles of bioethics. (3)
5. Describe the methods of gene transfer in plants. (3)
6. State the public acceptance issues in biotechnology. (3)

OR

- How public and private funding affects bioethics? (3)

Group-C

(Long Answer Type Questions)
(Answer any Six from the following)

5 x 6=30

7. Define the concept of antibiotics. (5)
8. Define live vaccines. (5)
9. State the classification of environmental stress. (5)
10. State the characteristics of an ideal polymer. (5)
11. Define RAPD. (5)

12. Write Salient features of Agrobacterim. Explain the gene transfer technology of Agrobacterium. (5)

OR

Summarize the SSR process. (5)
