

(6 pages)

Reg. No. :

Code No. : 7861

Sub. Code : WBOM 34

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024.

Third Semester

Botany — Core

INDUSTRIAL BOTANY

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. Which algae commonly used as fertilizer?
(a) green algae (b) blue green algae
(c) brown algae (d) none of the above
2. Agar is obtained from the algal species of ———
(a) Chondrus (b) Gigartina
(c) Gelidium (d) Laminaria

3. Which of the following not inhibit nucleic acid synthesis
(a) Norfloxacin (b) Chloramphenicol
(c) Trimethoprim (d) Rifampicin
4. Which of the following type of fermentation is observed in yeasts
(a) Acrylic fermentation
(b) Alcoholic fermentation
(c) Lactic acid fermentation
(d) Pyruvic fermentation
5. Which organic acid produced by fungus?
(a) Acetic acid (b) Butyric acid
(c) Lactic acid (d) Citric acid
6. What cheese has high lactose?
(a) cottage cheese (b) hard cheeses
(c) quark cheese (d) all the above
7. Which plant has longest fibre?
(a) Coconut (b) jute
(c) sunflower (d) cotton



8. What type of fat is most common in vegetable oils?
(a) omega-3 fats (b) saturated fats
(c) unsaturated fats (d) none of the above
9. Which of the following is an example of fats?
(a) Glyceryl trioleate (b) Vegetable ghee
(c) Coconut oil (d) Groundnut oil
10. Which country is the largest producer of coffee in the world?
(a) Brazil (b) Colombia
(c) Ethiopia (d) Vietnam
11. Which of the following is used to produce biogas from biomass?
(a) Anaerobic treatment
(b) Aerobic treatment
(c) Fermentation
(d) Pyrolysis
12. Glucose and fructose are converted to ethanol in the presence of _____
(a) invertase (b) zymase
(c) oxidase (d) reductase

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13. Interferons are _____
(a) Antiviral proteins
(b) Antibacterial proteins
(c) Anticancer proteins
(d) Cytoskeletal proteins
14. Which of the following plant part is free from the attack of the virus?
(a) Stem (b) Root
(c) Meristem (d) Leaves
15. The process of expression of foreign genes in a plant is called _____
(a) Gene expression
(b) Transgenesis
(c) Genetic transformation
(d) Cell hybridization

PART B — (5 × 4 = 20 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

16. (a) Explain the process of seaweed fertilizer production from Brown Algae.
- Or
- (b) What is diatomate earth? What are the benefits of diatomate earth?

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[P.T.O.]



17. (a) What are the beneficial uses of yeast?
Or
(b) Describe the process of making cheese. Explain the importance of cheese production.
18. (a) Write notes on tannins and examples of tannin yielding plants.
Or
(b) What are resins? Explain the preparation and application of resins?
19. (a) Give a short note on nutrient content of dairy products.
Or
(b) Write notes on vaccine and interferon.
20. (a) What are the role of biotransofrmation?
Or
(b) How is Bt-cotton genetically modified?

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)
Each answer should not exceed 500 words.

21. (a) Describe briefly about the economic importance of algae.
Or
(b) What is the role of alage in pharmaceutical industry?

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22. (a) Explain the fungal enzymes and their industrial applications.

Or

- (b) Explain the role of fungi in organic acid preparation and protein manufacture.

23. (a) Give detailed notes about the economic uses of fibres and fibre-yielding plants.

Or

- (b) Write an essay on economic importance of wood.

24. (a) What are the steps in the production of biogas and its uses? Explain.

Or

- (b) What is bioremediation? Describe its types and process of bioremediation.

25. (a) What is micropropagation? Write the methods and advantages.

Or

- (b) Write an essay on transgenic plants for crop improvement.

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