(6 pages) Reg. No.:....

Code No.: 30538 E Sub. Code: CSBO 32

B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2023.

Third Semester

Botany

Skill Based Core - ORGANIC FARMING

(For those who joined in July 2021 - 2022)

Time: Three hours

Maximum: 75 marks

PART A — $(10 \times 1 = 10 \text{ marks})$

Answer ALL questions.

Choose the correct answer:

- 1. Black soils are generally poor in
 - (a) Calcium
 - (b) Potash
 - (c) Phosphorus
 - (d) Lime

- 2. Which among the following is called whit alkali soil?
 - (a) Alluvial soil
 - (b) Yellow soil
 - (c) Forest soil
 - (d) Saline soil
- 3. Identify the odd man out
 - (a) Farmyard manure
 - (b) Poultry wastes
 - (c) Fishery wastes
 - (d) Industrial wastes
- 4. Which among the following is not present in cow dung?
 - (a) Potassium
- b) Nitrogen
- (c) Phosphorus
- d) Magnesium
- 5. Microorganism act upon dead plants to produce
 - (a) Manures
 - (b) Humus
 - (c) Clay
 - (d) Fertilizers

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- 6. Most important function of mulching is
 - (a) Retention of moisture
 - (b) Prevention of water loss
 - (c) Prevention of soil loss
 - (d) All the above
- 7. Azolla is a
 - (a) Fern

b) Bacteria

(c) Fungi

- d) Protozoa
- 8. Which of the following is used as a biofertilizer for soybean crop?
 - (a) Nostac
- (b) Azospirillum
- (c) Rhizobium
- (d) Azotobacter
- The highly decomposed organic matter rich in minerals like nitrogen, phosphorus, and potassium, in particular, produced from the activity of earthworms is called
 - (a) Humus
- (b) Vermicompost
- (c) Worm casting
- (d) Compost bedding

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- 10. Which of the following is false about vermicomposting?
 - (a) Worms population doubles in 90 days
 - (b) Worms eat double their body weight
 - (c) The wooden bin is best for vermicomposting
 - (d) Red worms are the best for vermicomposting

PART B — $(5 \times 5 = 25 \text{ marks})$

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Classify the soils based on texture.

Or

- (b) Give an account of fertility of soil.
- 12. (a) Establish the utility of cow dung and cow urine as a fertilizer.

Or

- (b) Highlight the importance of fishery waste as a manure.
- 13. (a) List down the methods of composting.

Or

(b) Identify the advantages of composting.

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14. (a) Bring out the importance of Rhizobium.

Or

- (b) Comment on the mass production of Azolla.
- 15. (a) Analyze the importance of vermicompost.

Or

(b) How will you produce vermicompost by pit method?

PART C — $(5 \times 8 = 40 \text{ marks})$

Answer ALL questions, choosing either (a) or (b). Each answer should not exceed 600 words.

16. (a) Discuss the formation of soil.

Or

- (b) How will you reclamate the acidic soil?
- 17. (a) What do you mean by Farmyard Manure? How are they useful in agriculture?

Or

- (b) Analyse the utility of poultry wastes.
- 18. (a) Elaborate the formation of humus.

Or

(b) Describe mulching. Add a note on its advantages.

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19. (a) Establish the role of biofertilizers in agriculture.

Or

- (b) How will you produce Rhizobium on a mass scale?
- 20. (a) Discuss, in detail, the production of vermicompost by heap method.

Or

(b) Examine the preparation and potential of *Panchagavya*.

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