



1ST SEMESTER 2019/2020

PAGE 1 OF 3

UNIVERSITY OF ESWATINI

MAIN EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY LEVEL 2

COURSE CODE: CPR209

TITLE OF PAPER: MUSHROOM PRODUCTION

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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QUESTION 1

- a. What are mushrooms? (2 marks)
- b. Which class of fungi produces mushrooms? (2 marks)
- c. What is the main function of hyphae? (2 marks)
- d. List the different types of hyphae based on their functions (3 marks)
- e. List five good attributes of mushrooms (compared with other crops) (5 marks)
- f. Explain why a mushroom mycelium culture should not be prepared from the mushroom cap? (3 marks)
- g. Describe the different types of hyphae based on the number of nuclei in each cell of the hyphae (8 Marks)

[25 Marks]**QUESTION 2**

- a. Define the following terminologies in mushroom production:
- i. Carrier (2 marks)
 - ii. Tissue culture ✓ (2 marks)
 - iii. Spawn culture (2 marks)
 - iv. Mother culture (2 marks)
 - v. Substrate (2 marks)
- b. Write scientific names of the following cultivated mushrooms:
- a. Shiitake mushroom (3 Marks)
 - b. Oyster mushroom (3 Marks)
 - c. Bracket mushroom (3 Marks)
 - d. Button mushroom (3 Marks)
 - e. Straw mushroom (3 Marks)

[25 Marks]**QUESTION 3**

Mushroom can be grown on shredded substance like sawdust or can be grown on logs. Using a specific mushroom, discuss advantages and disadvantages of each substrate over the other.

(25 Marks)

COURSE CODE: CPR209 (M)

PAGE 3 OF 3

QUESTION 4

- a. Explain step by step how one could go about obtaining mother culture (10 Marks)
- b. Mushroom fungi are said to be dikaryotic. What does that mean? (5 Marks)
- c. What is the importance of Relative Humidity in mushroom production? (10 Marks)
- [25 Marks]**

QUESTION 5

You are required to give advice to a farmer who wants to embark on mushroom farming in the hot and dry Lowveld of Swaziland.

- (i) Discuss the advice you would give to the farmer on inputs for construction of a cropping house and how to construct the mushroom cropping house. (15 Marks)
- (ii) What substrate(s) would you recommend to the farmer and give reasons why you would recommend it/them? (10 Marks)
- (25 Marks)**