



CRAWFORD UNIVERSITY

FAITH CITY, IGBESA, OGUN STATE

2015/2016 HARMATTAN SEMESTER EXAMINATIONS

COLLEGE: NATURAL AND APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

PROGRAMME: MICROBIOLOGY

COURSE CODE: MCB 303

COURSE TITLE: MYCOLOGY

COURSE UNIT: 2

TIMES: 2 HOURS

SECTION A: INSTRUCTION: Answer question 1 and any other one (1) question.

1. Fungi Secondary metabolites are produced via certain important Biosynthetic pathways.
 - (a) What are secondary metabolites? (4 Marks)
 - (b) Name the biosynthetic pathways (6 Marks)
 - (c) Give 4 specific examples of fungal secondary metabolites from each Biosynthetic Pathway and the fungi producing them (10 Marks).
 - (d) Give an example each of:
 - i. Carbohydrate fungal secondary metabolite (2 Marks)
 - ii. Protein fungal secondary metabolite (2 Marks)
 - iii. Peptide fungal secondary metabolite (3 Marks)
 - iv. Fatty Acid Secondary metabolite (2 Marks)
2. Fungi play an important role in Industrial process. Discuss. (10 Marks)
3. Write a comprehensive note on the uses of fungi in medicine (10 Marks)

SECTION B: INSTRUCTION: Answer question 4 and any other one (1) question.

4.
 - a. Assuming that you are provided with infected seeds, describe the laboratory procedures involved in identifying the pathogenic organisms
 - b. Name five major contents of a collection label in mycology
 - c. Describe the steps involved in using an autoclave
 - d. In tabular formats, state the similarities and differences between Rhizopus and Mucor
 - e. Give other names to the following:
 - i).Ascomycota ii).Basidiomycota iii).Deuteromycota iv). Mastigomycota v). Zygomycota
5.
 - a. With suitable diagrams, describe reproduction in black molds
 - b. Describe the vegetative structure and asexual reproduction in mucor
 - c. Why are fungi neither plants nor animals
 - d. State five characteristic features of Ascomycetes
6.
 - a. Describe cell division in Basidiomycetes
 - b. Make a schematic representation of the life cycle of Ustilago
 - c. Give a brief account of structure and reproduction of Agaricus
 - d. What criteria would you use to classify fungi?