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### JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

**SCHOOL OF HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR BACHELOR OF PUBLIC HEALTH**

**2ND YEAR 2ND SEMESTER 2013/2014 ACADEMIC YEAR**

**CENTER: BUSIA**

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**COURSE CODE: HCD 3228**

**COURSE TITLE: INTRODUCTION TO MEDICAL MYCOLOGY**

**EXAM VENUE: STREAM: BSc PH**

**DATE: 22/04/14 EXAM SESSION: 9.00-11.00AM**

**TIME: 2 HOURS**

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Instructions:

1. Answer ALL questions in Section A and ANY other 2 questions in

Section B.

1. Candidates are advised not to write on the question paper.
2. Candidates must hand in their answer booklets to the invigilator while

in the examination room.

**Section A answer all questions in this section (30 marks)**

1. In relation to pathogenic fungi define the following terms: **Achlorophyllous, Mycelium** and **Thallus**.( **3 marks**)
2. Define the term **coenocytic hyphae**. Name at least two species of pathogenic fungi that exhibit coenocytic hyphae (**3 marks**).
3. Reproduction in fungi occurs both sexually and asexually. In both types of reproduction spores are produced. Name the three processes that result into **Sexual spores** (**3 marks**).
4. Fungi have both beneficial and harmful effects to humans. Name at least one industrial chemical and one industrial enzyme that are produced by fungi. Name one species of fungi that produces aflaxtoxins in stored grains that are poisonous (**3 marks**)
5. Candidiasis is a common yeast infection that occurs in females reproductive organs. State the causal agent of vulvovaginal candidiasis. Describe any **two** most common predisposing factors that can lead to genital candidiasis in immunocompetent individuals. (**3 marks**).
6. Define the term “**Dermatophyte**”, give two examples of dermatophytes that are common in humans (**3 marks**)
7. Define **Aspergillosis**, Name at least two most common forms of Aspergilosis that occur in humans. (**3 marks**)
8. Pathogenic fungi have a tendency of exhibiting **dimorphism.** What is the advantage of dimorphism in pathogenic fungi? Name at least two pathogenic fungi that exhibit dimorphism **(3 marks)**
9. Name the causal agent of pulmonary **Cryptococcosis**. State at least two most important predisposing factors forCryptococcosis (**3 marks**).
10. Name the species of the fungus that causes **bread spoilage**. Name the **special hyphae** that are used by this fungus to penetrate into substrates. What is the mode of dissemination of the above fungi (**3 marks**).

**SECTION 2. ANSWER ANY TWO QUESTIONS** (**40 marks**)

1. Fungi cause diseases to plants and animals. They are also economically important because they contribute to our quality of life in various ways. With examples, describe the use of fungi in the following processes:
2. Baking and brewing industry (**5 marks**)
3. Production of industrial chemicals, (**5marks**)
4. Manufacture of drugs (**5 marks**)
5. Human food (**5 marks**) (**Total 20 marks**).

1. Describe any of the following systemic mycoses: **Histoplasmosis** OR **Coccidioidomycosis.** For any of the diseases described**,** State clearly the **causal agent, mode of transmission, symptoms, diagnosis** and **treatment** (**20 marks**).
2. During the recent Westgate Mall terrorists attach, many innocent people were injured when the building collapsed. The shrapnel from the collapsing building caused various degree of injuries to the people in the vicinity.
3. Describe the type of fungal infections that could occur as a result of the obvious dramatic injuries that required immediate medical attention.(**10 marks**)
4. Any other type of long term fungal infections that could result from less obvious injuries that did not attract any medical attention. (**10 marks**)

1. Fungal infections are basically opportunistic in nature. Describe
2. Any two (**2)** virulent factors which aid fungi to overcome host defenses and cause an infection (**10 marks**)
3. Any **4** predisposing factors of the host to fungal infections (**10 marks**)