



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

THIRD YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE
(BIOLOGY)

SZL 316: PRINCIPLES OF MEDICAL MICROBIOLOGY

DATE: 2/8/2017

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

Answer Question One and Any Other Two Questions

SECTION A

1. a) Explain the following terms:
 - i Immunoprophylaxis. (2 marks)
 - ii Predisposing factor. (2 marks)
 - iii Mycosis. (2 marks)
- b) Highlight any **two** distinct characteristic features of mycoplasma. (2 marks)
- c) Explain briefly any **four** reasons for carrying out microbial characterization. (4 marks)
- d) Explain the **two** types of microbial pathogens. (4 marks)
- e) Explain any **two** applications of microbiology in public health. (4 marks)
- f) Justify that viruses are living organisms. Justify this statement. (4 marks)
- g) State any **two** applications of viruses in medicine. (4 marks)
- h) State the causative agents of the following pathogenic infections: (2 marks)
 - i Peptic ulcers.
 - ii Cholera.
 - iii Whooping cough.
 - iv Botulism.

SECTION B: ANSWER ANY OTHER TWO QUESTIONS

2. a) Explain the **four** criteria followed in classifications of animal and human pathogens. (8 marks)
- b) Discuss the various classifications of human etiological agents on the basis of hazard. (12 marks)
3. a) Explain any **four** predisposing factors to fungal infections. (8 marks)
- b) Discuss the **four** classifications of mycosis. (12 marks)
4. Discuss any **five** strategies employed in control of viral diseases. (20 marks)
5. a) Explain the **two** principles of microbial identification. (10 marks)
- b) Describe the mechanism of viral pathogenesis. (10 marks)