



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN POPULATION HEALTH.

PPH 316: POPULATION HEALTH RISK ASSESSMENTS

DATE: 18/4/2019

TIME: 11:00 -1:00 PM

INSTRUCTIONS:

This paper consists of two sections A and B

SECTION A: (COMPULSORY)

- This section has one question
 - The question is compulsory
 - The question is 30 marks
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- a) Define the following terms (3 marks)
 - i) Health risk Variability
 - ii) Health risk Tolerability
 - iii) Health risk Assessment
 - b) Explain the populations vulnerable to health risk (3 marks)
 - c) The best test species for health risk assessment for humans are humans. Justify (3 marks)
 - d) Outline the health effect of physical hazards (3 marks)
 - e) Highlight three (3) advantages of qualitative data in health risk assessment. (3 marks)
 - f) Identify six (6) sources of information for population health risk assessment. (3 marks)
 - g) Highlight the factors that can influence health risk acceptability (3 marks)
 - h) Explain the limitation of using population health risk assessment data in everyday life (3 marks)
 - i) Briefly describe routes of exposure to a health risk (3 marks)

- j) Identify three (3) methods used in health risk treatment (3 marks)

SECTION B:

- This Section Has Four (4) Questions
- Answer Any Two (2) Questions
- Each Question is 20 Marks)

QUESTION TWO (20 MARKS)

- a) Explain the advantages of using computer modeling in assessing hearing loss and stress caused loud noise from industrial machines. (10 marks)
- b) Discuss important assumptions when evaluating a health risk. (10 marks)

QUESTION THREE (20 MARKS)

- a) Fill in the missing gap (10 marks)

Health risk	Public health intervention
i) Mother to child HIV/AIDS transmission	-----
ii) Polio	-----
iii) -----	Vitamin D supplementation
iv) -----	Taxation of tobacco products
v) Gonorrhoea and syphilis	-----
vi) -----	Iodized salt
vii) Tooth decay	-----
ii) Obesity	-----
viii) -----	BCG-Vaccination
ix) -----	Use of condoms

- b) Discuss five principles applied in the management of a health risk (10 marks)

QUESTION FOUR (20 MARKS)

- a) Mr. Kamau is a health expert in health risk assessments based at Machakos County. Explain five (5) cases in the County where his expertise may be sought (10 marks)
- b) Describe five steps used in prioritizing a health risks (10 marks)

QUESTION FIVE (20 MARKS)

Ruth a health scientist based in Machakos County could not concluded possibility of diarrhea cases or probabilities of developing diarrhea after drinking rain untreated water among Machakos town residents.

- a) Discuss the reasons for her dilemma in the above case. (10 marks)
- b) Explain models she can use in assessing the health risk above. (10 marks)