**KENYA MEDICAL TRAINING COLLEGE – NYAMIRA**

**END OF YEAR THREE SEMESTER ONE EXAMINATION**

**SEPTEMBER 2013 KRCHN CLASS (PRE-SERVICE)**

**EPIDEMIOLOGY EXAMINATION**

DATE: 24/2/2016 TIME 1.30 – 4.30 PM

**INSTRUCTIONS**

1. Read the questions carefully and answer only what is asked.
2. Enter your examination number and question number on each page used.
3. ALL questions are compulsory.
4. For part 1 (MCQs), write the answer in the spaces provided on the answer booklet and each MCQ is one (1) mark.
5. For Part 2 (SHORT ANSWER QUESTIONS), answer the questions following each other.
6. For Part 3 (LONG ANSWER QUESTIONS), answer to each question MUST start on a separate page.
7. Omission of and or wrong numbering of a question or part of the question will result in 10% deduction of the marks scored from the relevant part.
8. Do NOT use a pencil.
9. Mobile phones are NOT allowed in the examination hall.

For Examiner:

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| --- | --- | --- | --- | --- |
| **MCQS** | **SAQS** | **LAQS 1** | **LAQS 2** | **TOTAL** |
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**PART ONE: MCQS (MULTIPLE CHOICE QUESTIONS) EPIDEMIOLOGY– 5 MARKS**

Q.1. Which of the following best defines epidemiology:

1. Is the frequency and patterns of health events in a population?
2. Is the occurrence of health related events by time, place and person?
3. Is the study of distribution and determinants of health related events in specified population and the application of this knowledge in prevention and control of diseases.
4. Is the scientific discipline with sound methods of scientific inquiry?

Q.2. The following variables are studied in discipline epidemiological study:

1. Time, place and person.
2. Host, time and environment.
3. Place, person and agent.
4. Environment, host and agent.

Q.3. Types of cohort studies include:

1. Prospective studies only.
2. Retrospective studies only.
3. Combination of prospective and retrospective studies.
4. None of the above.

Q.4. In the year 2015, there were 100 new cases of malaria in Nyamira Sub-county. The average total population is 10,000 people. Calculate the incidence rate where K=1,000.

1. 1000.
2. 10.
3. 100.
4. 10,000.

Q.5. Examples of indirect transmission include:

1. Direct projection, trans placental air borne.
2. Airborne, vector borne, vehicle

 borne.

1. Vector bone, direct projection, and direct contact with body fluids.
2. Tran placental, airborne, vector borne.

**PART TWO: SHORT ANSWER QUESTIONS – EPIDEMIOLOGY – 20 MARKS**

Q.1. With aid of a diagram describe the epidemiological triad. 6 marks

Q.2. List six (6) core functions of epidemiology. 5 marks

Q.3. Explain five (5) factors influencing host susceptibility for infections. 5 marks

Q.4. List four (4) epidemiological study methods. 2 marks

**PART TWO: SHORT ANSWER QUESTIONS – EPIDEMIOLOGY**

Q.5. Differentiate between :

1. Incidence and prevalence.
2. Epidemic and pandemic. 4 marks

Q.6. State three (3) main types of reservoirs. 3 marks

Q.7. State four (4) determinants of diseases. 4 marks

Q.8. Explain the natural history of diseases. 5 marks

Q.9. State three (3) principles of control of infectious diseases. 3 marks

Q.10. Describe three (3) levels of disease prevention. 5 marks

Q.11. Describe the chain of infectious diseases. 5 marks