# Technical University of Mombasa

**Faculty of Applied and Health Sciences**

## DEPARTMENT OF PURE AND APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMMUNITY HEALTH

### BCH 13J

## ACH 4100  : FOUNDATIONS  OF ENVIRONMENTAL HEALTH

SPECIAL/SUPPLEMENTARY EXAMINATION

OCTOBER 2013 SERIES
2 HOURS
Instructions to candidates:

This paper consist of **FIVE** questions
Answer question **ONE** (compulsory) and any other **TWO** questions

**Question ONE**

a)  Describe the following terms as used in health  interventions
   (i)      Result based evaluation                                                    **(3marks)**
   (ii)     Resuch–based  monitoring                                               **(3marks)**

b)  Residents of Kongowea slum in Mombasa Country have reported high number of cases of typhoid.  You have been appointed the co-ordination of health intervention.  In the country suggest the measures to be implemented to prevent and control typhoid among the slum residents                                                                                 **(6marks)**

c)  Describe the term "Community diagnosis" and irrelevance  while designing interventions
                                                                                                            **(6marks)**

d)  Outline the challenges facing community intervention program in Kenya    **(4marks)**

e)  Describe the FOUR key ethical principles while designing interventions    **(8marks)**

**Question TWO**

You have been appointed head of HIV and AIDS intervention in Mombasa Country.

      (i)     Outline the steps in HIV strategic planning and management cycle. **(4marks)**

      (ii)    Using a diagram illustrate the steps you will follow to identify and select critical intervention to control HIV and AIDS in the country. **(16marks)**
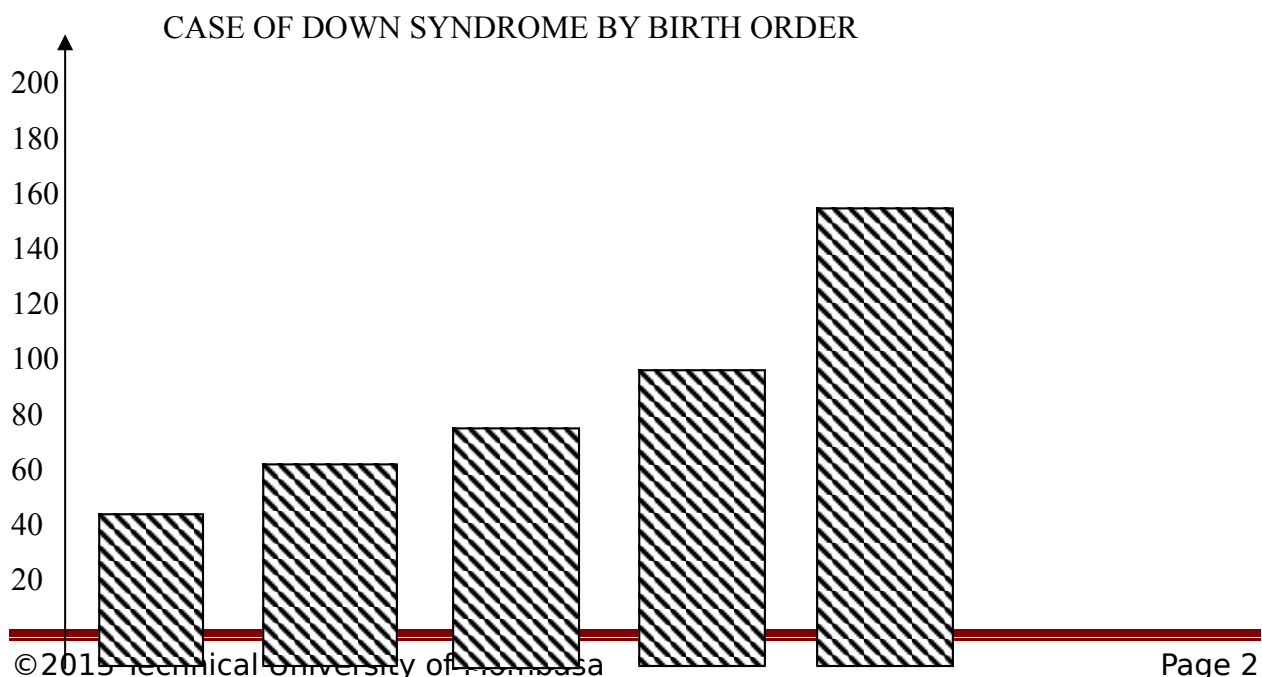
**Question THREE**

The Kenyan Ministry of Health in partnership with the world health organization (WHO) and the UN High commissioner for refugees (UN HCR) confirmed the index care of polio on 17$^{th}$ May, 2013. Thereafter laboratory tests confirmed an outbreak of polio in the world largest Refugee Camp. Dadaab complex in North eastern Kenya.
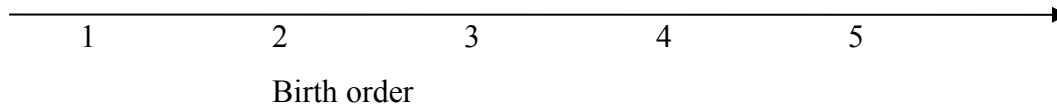
    a) Describe the various interventions that can be implemented to control and prevent further polio outbreaks. **(15marks)**

    b) Outline possible challenges that might be faced during the implementation of the proposed interventions above **(5marks)**

**Question FOUR**

A Cohort study of no. of cases per 100,000 live births among mothers delivering at the Coast Provincial General Hospital illustrates the risk of down syndrome for the first, second, third, fourth and fifth child as shown below in the bar graph

CASE OF DOWN SYNDROME BY BIRTH ORDER

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0
  |————————————————————————————————————————————————————→
      1           2           3           4           5
                Birth order
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(i)    Which children have the highest risk of down syndrome?        **(2marks)**

(ii)   A colleague argues that this is yet another argument against big families.  Do you agree with  this condition Explain.        **(4marks)**

(iii)  Design two interventions that could reduce the risk of down syndrome if implemented?        **(10marks)**

(iv)   What are the possible challenges that might affect the suggested interventions above during implementation?        **(4marks)**


**Question FIVE**

As the read of mother and child health interventions in Kenya, you would like to investigate whether pregnancy with a first baby (primgragranda) after the age of 35years is associated with increased risk of still birth of the baby thereafter design an intervention to reduce the risk of still births.

a)  What will be your exposure and outcome of interest        **(4marks)**

b)  State your possible study question        **(4marks)**

c)  Outline the two main confounders and sources of basis        **(4marks)**

d)  Assume that the study confirmed positive association. Describe measures that if implemented and reduce the risk of stillbirths.        **(8marks)**