

UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For the following qualifications :-

B.Sc. (Intercal)

CHIME 6: Maternal and Child Health in Developing Countries

COURSE CODE : **CHME0006**

UNIT VALUE : **0.50**

DATE : **10-MAY-02**

TIME : **10.00**

TIME ALLOWED : **3 hours**

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TURN OVER

This exam paper is divided into three sections. Answer **ONE** question in section A, **FOUR** questions in section B and all of section C. You are advised to spend approximately one hour on each section. If you decide to answer a question on the same general topic as that of your assessed essay or your project, write on a different aspect of it and make a brief note to this effect in your answer.

SECTION A.

Write an essay on **ONE** of the following

1. Discuss the impact that HIV has on the health and development of children in Africa.
2. What is the role of malnutrition in mortality among young children in poor countries and what can be done about it clinically?
3. What are the challenges for global childhood immunisation programmes in the next decade?
4. How does malaria affect the health and development of children and what public health measures can prevent it?

SECTION B.

Write short notes on **FOUR** of the following:

1. The effects of vitamin A deficiency and how it may be prevented.
2. The transmission of schistosomiasis and its effects on the urinary and gastrointestinal tracts.
3. Causes and prevention of maternal mortality in developing countries.
4. Infective agents that cause diarrhoea in children.
5. The diagnosis and treatment of clinical malaria in children.
6. The management of health and nutrition of refugees.
7. The effects of iodine deficiency on mothers and children, and how it may be prevented.
8. Essential newborn care.

TURN OVER

SECTION C.

Read the following scenario and answer the thirteen questions. The number in brackets gives the percentage of the total mark for this section awarded for each question.

You have been invited to join a technical group of advisers to the Ministry of Health in Bangladeria, a developing country. In Bangladeria, the perinatal mortality rate is 75, the maternal mortality rate is 500, the low birth weight rate is 25%, 60% of children under five are stunted, and ten per cent are wasted during the rainy season. The human development index of Bangladeria is 0.35.

Write definitions of:

1. perinatal mortality rate (2.5%)
2. maternal mortality rate (2.5%)
- 3 low birth weight rate (2.5%)
- 4 stunting (2.5%)
- 5 wasting (2.5%)
- 6 human development index (2.5%)

A research group from the World Health Organization (WHO) has shown that 82% of prostitutes in Limbo, the port capital of Bangladeria, are HIV1 positive. An anonymous survey of 100 antenatal mothers in a poor government maternity hospital in downtown Limbo (8000 deliveries per year) revealed 22 seropositives. Drug addiction is common but no studies have yet been done to measure HIV prevalence rates in this group, nor among young children. There is no screening of donated blood. The paediatricians in Limbo say that 40% of admissions on to the paediatric ward are children with AIDS.

7. Discuss risk factors for HIV transmission from mothers to infants, and your THREE recommendations to the Minister about priority areas for investment to reduce these risk factors. (15%)

8. How might mother to child transmission of HIV be prevented in this setting? (15%)

9. The Minister of Health wants to know where he can get information about current drug regimes and their effectiveness. Give the minister some recommendations about how to search and find this information. (10%)

10. A child on the paediatric ward admitted with malnutrition is suspected of being HIV positive. The parents are unaware of the HIV status of themselves or their children. Discuss how you would handle this problem, particularly how you would approach the parents to ask permission to test their child, and what you would do to break the news and support the family if the test proves to be positive. (10%)

The Minister has allocated \$50,000 per district per year for three years to improve perinatal care in six poor districts, each with a population of about 250,000. Each district has a hospital (50 beds and a two-cot special care baby unit), two smaller health centres providing in-patient midwifery, and five community-based public health nurses employed to provide domiciliary support and training for the estimated 60 traditional birth attendants. 80% of mothers deliver at home.

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11. The Minister asks you to outline the FOUR most important areas in which to invest the money. List your priorities in order of merit, giving your reasons for each priority (15%)

12. Discuss the arguments for and against investment in the training of traditional birth attendants. (10%)

13. Discuss how you might evaluate the impact of this investment programme (10%).

END OF PAPER