

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF MEDICINE

BACHELOR OF MEDICINE AND BACHELOR OF SURGERY DEGREE
PART 1 EXAMINATIONS

MBM 1202 : HUMAN GENETICS

DATE : MAY 2006

TIME : 3 HOURS

Instructions to Candidates

Answer all questions

SECTION A

1. Write an essay on sex determination in humans and other animals. (20)
 2. Write an essay on chromosomal aberrations in humans. (20)
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SECTION B

1. (a) How is DNA sequencing performed using the Maxam-Gilbert method? (8)
(b) What are the consequences of trisomy in humans? (8)
2. Write notes on the following:
(a) RFLP (5)
(b) gene mapping. (5)
3. Describe the following phenomena:
(a) epistasis (4)
(b) Rh factor inheritance (4)
(c) pleiotropy (4)
(d) G-banding (4)

- (e) X-chromosome inactivation (4)
- (f) nucleosome organization (4)
- (g) gene therapy. (4)

4. Give a brief description of the following:

- (a) transposable elements (2)
- (b) assembled genes (2)
- (c) nested genes. (2)

END OF EXAMINATION