



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF HEALTH SYSTEMS MANAGEMENT AND DEVELOPMENT
MASTER OF SCIENCE IN BIOETHICS
END OF SEMESTER EXAMINATION MAY-AUGUST 2026

UNIT CODE: MBE 717 **UNIT NAME** Ethical Hotspots
DATE: 5th August, 2026
TIME: Three Hours **Start:** 5:30 PM **Finish** 8: 30 PM

INSTRUCTIONS

1. This exam is marked out of 100 marks
2. This Examination comprises TWO Sections
Section A: Compulsory Question (25 marks)
Section B: Long Answer Questions (75 marks)

SECTION A: COMPULSORY (25 Marks)

Short Answer Questions

1. Define the concept of an "ethical hotspot" situated within the landscape of emerging health technologies. (5 Marks)
2. Identify three ethical vulnerabilities raised by advancements in genomic technologies. (5 Marks)
3. Analyse the bioethical rationale regarding exceptional protections of genetic information in contemporary healthcare. (5 Marks)
4. Differentiate therapeutic stem cell research from reproductive cloning based on their divergent ethical frameworks. (5 Marks).
5. Describe two major ethical risks associated with the pervasive integration of social media platforms within modern health delivery. (5 Marks)

SECTION B (Set 5 Questions)

ANSWER ANY THREE (3) QUESTIONS (75 Marks)

Long Answer Questions

6. Case Scenario: A prominent referral hospital wishes to introduce an automated Artificial Intelligence (AI) tool for triage and clinical diagnosis. The system operates on algorithmic models trained using vast repositories of patient data collected by the institution over many years.
 - (a) Analyze three ethical issues associated with utilizing historical patient datasets to train this AI diagnostic tool (15 Marks)
 - (b) Evaluate two challenges that could manifest if this AI triage framework is deployed within an African healthcare infrastructure. (10 Marks).
7. A research team proposes a complex genomic study involving an indigenous Kenyan community. The study possesses potential long-term public health benefits, and the raw genetic data is slated for permanent storage in an open-access shared global repository for future secondary research.
 - (a) (i) Evaluate three (3) primary ethical requirements regarding community engagement (7 marks)
(ii) Evaluate three ethical requirements regarding benefit-sharing that must be addressed before this study receives institutional approval. (8 Marks)
 - (b) Discuss three (3) key safeguards required to mitigate any ethical risks for the participating community during post-study data sharing. (10 Marks).
8. The conceptual boundary separating therapeutic interventions from human enhancement technologies remains highly contested in contemporary bioethics.
 - (a) Analyse using three examples the difference between therapy interventions from human enhancement. (15 Marks)
 - (b) Analyse the ethical position on whether human enhancement technologies should be subject to separate regulatory and bioethical frameworks compared to standard therapeutic technologies. (10 Marks).
9. (a) Discuss three (3) ethical conflicts that arise between utilitarian public safety objectives and individual libertarian rights during this state-led crisis response. (15 Marks)
 - (b) Analyse two (2) explicit ethical frameworks that policy-makers must employ to ensure that the distribution of scarce life-saving resources remains fair, transparent, and non-discriminatory. (10 Marks)
10. (a) Evaluate three (3) professional ethical obligations that are violated when clinical training occurs without explicit patient comprehension. (15 Marks)

(b) Propose two (2) practical and ethically sound strategies that clinical educators can implement to protect patient autonomy while preserving the quality of medical education. (10 Marks)

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