

**MBA Hospital, Health, Pharmaceutical and Development Management
(2023-2025)****Second Year, Term 5 End Term Examination, February 2025****EC-251 The Intersection of Climate Change, Environment, One Health and
Sustainability with Public Health- Part I****Time - 3 Hours****Maximum Marks: 50 (Minimum Marks: 20)****Instructions to students:**

- This question paper contains 3 printed page/s.
- Don't write anything on the Question Paper except writing your Enrolment No.

Part A**(Maximum Marks: 5)****Q1. Choose the correct option for the following questions (1 mark each):**

- a) Which of the following BEST defines the core concept of One Health?
1. A collaborative approach between sectors to plan efficient health interventions to improve the health and to fulfill all needs of Humans.
 2. A global initiative to eradicate all infectious diseases of Human and Animal origin by 2050.
 3. A collaborative, multisectoral, and transdisciplinary approach recognizing the interconnectedness of human, animal, and environmental health.
 4. A regulatory framework for controlling the international trade of animals and animal products to prevent zoonotic diseases.
- b) Climate change could affect human health by all EXCEPT
1. Change in vector distribution of diseases
 2. Lack of food and water security
 3. Disruption of habitats
 4. Increasing Greenhouse gas production
- c) Unsustainable Livestock farming could directly affect the environment by all EXCEPT
1. Emission of greenhouse gases
 2. AMR
 3. Disruption of Biodiversity due to Habitat loss
 4. Spillover zoonosis
- d) True about- National Joint Outbreak Response Team
1. Works in line with integrated outbreak response concept
 2. Comprises of experts from Human animal husbandry and wildlife sectors
 3. Works under Pandemic Preparedness initiatives
 4. All of the above
- e) Air pollution is a major risk factor for several NCDs, including respiratory diseases, cardiovascular diseases, and some cancers. Which of the following actions represents a One Health approach to mitigating the impact of air pollution on NCDs?
1. Focusing solely on promoting the use of personal protective equipment (e.g., masks) in heavily polluted areas.
 2. Developing new medications to treat the respiratory symptoms caused by air pollution both in Humans and Animals.
 3. Addressing the sources of air pollution, such as industrial emissions, agricultural practices, and transportation, through intersectoral collaboration and policy changes.
 4. Increasing the number of hospitals and clinics specializing in respiratory illnesses, improves the capacity of healthcare workers to treat respiratory illness.

Part B**(Maximum Marks: 5x3=15)****Answer any three of the following questions (5 marks each):**

- Q2.** Think about any health-related issue having a One Health linkage, write down the issue, justify the one health linkage.

Based on your understanding of the broad One Health approach, identify the possible stakeholders who needs to be involved to plan a One Health intervention related to that issue.

Or

How Climatic factors influence human health?

- Q3.** Explain the concept of Integrated One Health Surveillance. Write a brief note on existing One Health surveillance in India.

Or

What is Climate resilient health system? Name the WHO recommended pillars.

- Q4.** What are emerging and Re-emerging diseases? Explain their One health linkage with example.

Or

Air quality determines the quality of life too, explain.

Part C**(Maximum Marks: 3x10=30)****Answer any three of the following questions in detail (10 marks each):**

- Q5.** In a rural community in India, there has been an increase in cases of a drug-resistant bacterial infection affecting both humans and livestock. The community relies heavily on livestock for their livelihoods and sustenance. Preliminary investigations suggest a potential link between the overuse of antibiotics in livestock and the rise in human infections.

In the context of One Health and AMR how do you plan to deal with the situation as a One Health leader- Write down a detailed roadmap of your strategy.

Or

What do you understand by Climate Change? How humans are changing climate and climate change is affecting human lives?

- Q6.** What are the domains of One Health?
"Actions in one domain can generate positive or negative externalities (spillover effects) in other domains"- explain this statement in the context of each domain with example.

Or

Discuss the concept of Sustainable development. Elaborate the Conventions to control climate change can play important roles to ensure sustainability.

- Q7.** Explain the concept of Efficiency in health intervention.
Could One Health Approach result in Efficiency gain in health? Justify your answer.
What are the complexities of One Health Economics? How it could differ from conventional health economic approach.

Or

Write short notes on:-

- i. Montreal Protocol
- ii. Earth Summit

- iii. Kyoto Protocol
- iv. UNFCCC COP 29

