MANIPAL ACADEMY OF HIGHER EDUCATION
MD (COMMUNITY MEDICINE) DEGREE EXAMINATION – JANUARY 2025
(REGULAR)
PAPER I

Tuesday, January 14, 2025

Time: 14:00 – 17:00 Hrs.   Max. Marks: 100

✍ **Answer ALL the questions.**

1. Discuss the role of social determinants in influencing public health outcomes. Provide examples of how these determinants can be addressed through public health interventions.

2. Describe the impact of malaria on public health. Discuss the effectiveness of various malaria control strategies.

3. Health is multidimensional – Justify.

4. Analyze the burden of diabetes mellitus in India and evaluate the National Programme for Prevention and Control of Non-Communicable Disease (NP-NCD).

5. Discuss the challenges posed by emerging and re-emerging infectious diseases in India. How can the public health system be strengthened to address these challenges?

6. Critically evaluate the impact of the Universal Immunisation Programme (UIP) in India on reducing childhood mortality and morbidity due to vaccine-preventable diseases.

7. Explain the important ethical principles in health research. Discuss the role of Institutional Ethics Committee in ensuring ethical conduct of research.

8. Discuss the concept of 'p-value' in hypothesis testing. What are its limitations, and how can they be addressed in medical research?

9. Evaluate the impact of urbanization on public health. Provide suggestions for urban health planning to mitigate negative health effects.

10. Describe the steps involved in investigating an outbreak of a foodborne illness at a hostel.

(10 marks × 10 = 100 marks)

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PAPER II
Wednesday, January 15, 2025

Time: 14:00 – 17:00 Hrs.   Max. Marks: 100

✍ **Answer ALL the questions.**

1. Discuss the public health interventions for mitigating the micro nutrient deficiencies in India.

2. Critically review the Indian Public Health Standards 2022 for primary health centres.

3. Describe the core principles of the "Prudent diet" and discuss how these recommendations can be adapted to meet the special nutritional needs.

4. Social welfare schemes for elderly in India.

5. Describe demographic transition. Discuss the social factors influencing demographic transition.

6. Discuss in detail "Risk Score" in Maternal and Child Health.

7. Methods for inventory control.

8. Under 5 Mortality Rate is the best single indicator of social development and well-being rather than GNP per capita – Justify.

9. Explain the effect of air pollution on health and add a note on various indicators of air pollution.

10. Role of microplanning in delivery of routine immunization services.

(10 marks × 10 = 100 marks)

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(REGULAR)
PAPER III

Thursday, January 16, 2025

Time: 14:00 – 17:00 Hrs.   Max. Marks: 100

✍ **Answer ALL the questions.**

1. As a Surveillance Medical Officer, design a research proposal to assess the effectiveness of health education on the vaccine uptake in your area of work. Emphasize mainly on the research question, objectives, and methodology.

    (10 marks)

2. Critically analyze the cigarettes and other tobacco products (COTPA) Act, 2003.

    (10 marks)

3. Discuss the role of acute flaccid paralysis (AFP) surveillance in polio eradication.

    (10 marks)

4. Discuss the International Health Regulations (IHR) concerning Public Health Emergency of International Concerns (PHEIC). Comment on their success or failure during the COVID-19 pandemic.

    (6+4 = 10 marks)

5. Define IEC and BCC with suitable examples. Prepare an IEC and BCC action plan for the prevention of cervical cancer in a community setting.

    (4+6 = 10 marks)

6. Discuss operational research in healthcare with a suitable example.

    (10 marks)

7. What are the various models of health education? Explain the 'Transtheoretical Model of Change' for a smoking cessation intervention.

    (2+8 = 10 marks)

8. Define bio-medical waste management. As a PHC medical officer, discuss the measures for biomedical waste management in your PHC in detail.

    (2+8 = 10 marks)

9. As a district health officer, prepare a flood-preparedness plan for flood-prone villages in your district. Add a note on its mitigation activities in case of a flood

    (7+3 = 10 marks)

10. Critically analyze the issue of **"Changing Demography and the challenge of dementia in India."** Add a note on the district mental health program (DMHP).

    (5+5 = 10 marks)

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✍ **Answer ALL the questions.**

1. Identify and discuss the roles of various stakeholders in the health policy planning process.

2. Explain the role of technology in medical education. How can simulation-based learning enhance the training of medical students?

3. Critically review the role of AYUSH in achieving comprehensive health.

4. Analyze the impact of information technology on healthcare delivery. Discuss the advantages and limitations of electronic health records (EHRs).

5. Exposure to asbestos in the construction industry has led to several health issues. Use this case study to illustrate broader principles and strategies for improving occupational health.

6. Explain the importance of health information systems in public health. How can health data be utilized to improve health outcomes and policy-making?

7. Discuss the role of genetics in public health. How can genetic screening and counselling contribute to the prevention and management of genetic disorders?

8. Discuss the recent advances in public health with regards to immunization in India. What are the emerging public health challenges that need to be addressed?

9. Explain the principles of health economics. How can cost-effectiveness analysis be used to prioritize healthcare interventions in resource-limited settings?

10. Address the issue of bias and fairness in AI algorithms and its impact on health equity.

(10 marks × 10 = 100 marks)