

No. of Printed Pages : 3

**MME-011**

**POST GRADUATE CERTIFICATE IN  
MEDICAL MANAGEMENT OF CBRNE  
(PGCMDM)**

**Term-End Examination**

**June, 2024**

**MME-011 : BASICS OF CBRNE DISASTERS**

*Time : 3 Hours*

*Maximum Marks : 70*

---

**Note :** There are three Parts A, B and C. All Parts are compulsory.

**PART-A**

1. Answer any *one* of the two in **300–400** words :
  - (a) What are the action points taken by the rescue team in the event of a radiological dispersal device explosion ? Elucidate the same using a schematic flowchart depicting the incident management procedure.

**P. T. O.**

[ 2 ]

**MME-011**

- (b) What are the two phases of a nuclear disaster ? Discuss in detail about the steps that are taken in the phase 2 for Health Monitoring of the affected population.
2. Write short notes in **70-100** words each on any **two** of the following :
  - (a) What is Effective dose (E) ?
  - (b) Counting systems used during Nuclear and Radiological Attacks.
  - (c) Acute radiation syndrome. 2×6=12

**PART-B**

3. Answer any *one* of the following in **300–400** words :
  - (a) Enumerate various diagnostic methods/tools used for detection of Biological Agents in a Bio events and discuss the issues and challenges involved in detection of a biological attack. 6+6
  - (b) What are category 'B' agents of bioterrorism and enlist cat B agents. Discuss in detail about any two of the cat 'B' agents. 6+6
4. Write short notes in **70-100** words each on any **two** of the following :

[ 3 ]

MME-011

- (a) Relevance of Bio-terrorism in India
- (b) Standard steps of out break investigation
- (c) Biological weapon convention  $2 \times 6 = 12$

**PART-C**

5. Answer any one of the following in **300-400** words :
- (a) What are hazardous chemicals ? List some of the HAZCHEM events occurred in past.  
  
Elaborate in detail about Tokyo sub way chemical attack.  $6+6$
  - (b) Enumerate Routes of entry of Toxins into human system and write in detail about 8 types of chemical toxins.  $6+6$
6. Write short notes in **70-100** words each on any *two* of the following :
- (a) Blister agents
  - (b) Post Blast injury prophylaxis for blood borne pathogens
  - (c) OPCW official proficiency test  $2 \times 5 = 10$

\*\*\*