

**M. Sc. (Medical Biotechnology) Sem-IV (Choice Based Credit System) :  
WINTER - 2018**

**SUBJECT: BIOMEDICAL WASTE AND ENVIRONMENT**

Day: Tuesday  
Date: 23/10/2018

**W-2018-1303**

Time: 10.00 AM TO 01.00 PM  
Max. Marks: 60

**N.B.:**

- 1) **Q.NO.1** and **Q.NO.5** are **COMPULSORY**. Answer Any **TWO** from questions **NO.2, 3** and **4** and from **6, 7** and **8**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SEPARATE** answer book.

**SECTION-I**

- Q.1** Attempt **ANY FIVE** of the following questions in brief **[10]**
- a) Explain the hospital acquired infections.
  - b) State the effects of environment pollution on human health.
  - c) Explain heat as stress.
  - d) What are the sources of Environment pollution?
  - e) Write the control of radioactive waste.
  - f) What are direct and indirect hazards?
- Q.2** Answer the following questions: **[10]**
- a) Write the classification of biomedical waste.
  - b) Describe mitigation of air pollution.
- Q.3** Explain the following: **[10]**
- a) Common effluent treatment facilities in-site and off-site.
  - b) Metabolic responses of microorganisms to hot water discharge.
- Q.4** Write short notes on **ANY TWO** of the following: **[10]**
- a) Composting of biodegradable BMW
  - b) Liquid waste treatment
  - c) Explain cold as stress

**SECTION-II**

- Q.5** Answer the following: **[10]**
- a) Write modern technology for handling biomedical waste.
  - b) What is incineration and its impact on human health?
- Q.6** Answer **ANY TWO** of the following: **[10]**
- a) Explain the basic steps in waste management.
  - b) Write the store and off-site transportation.
  - c) Describe the legislation and policies on healthcare waste management.
- Q.7** Write short notes on the following: **[10]**
- a) Secured land fill
  - b) On site pre-treatment of waste
- Q.8** Answer the following: **[10]**
- a) Discuss the methods for treatment of effluent from pathology laboratory.
  - b) Mention traditional methods for treatment of biomedical waste.