RAN-2203000206030074

RAN-2203000206030074

B. Sc. (Microbiology) (Sem. - VI) Examination September - 2025

GE-4 : Biosafety in Microbiology Laboratory

Time: 2 Hours] **[Total Marks: 50**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book.
(2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams whenever necessary.

Seat No.:

Student's Signature

Q. 1. Give specific answers. **(08)**

a. What type of laboratory practices are typically followed in Biosafety Level 3 (BSL-3)?
b. Write down any 2 examples of infectious waste generated in the microbiology laboratory.
c. Differentiate between laboratory biosafety & laboratory biosecurity.
d. State the role of Environmental Health Specialist in the Biosafety Committee.
e. Specify the role of waste segregation.
f. State the two scientific processes of Microbial Risk Assessment.
g. In a Class II Type Al biosafety cabinet, what percentage of the cabinet's air is recirculated within the cabinet?
h. Give full form of HVAC.

Q. 2. Explain/ Comment on any two of the following: **(14)**

a. Justify: The selection of an ideal biological safety cabinet is a critical decision.
b. Make detailed note on the duties of the biosafety officer.
c. Enlist and discuss the types of incinerators and disposal of biomedical waste by incineration.

Q. 3. Discuss any two of the following: **(14)**

a. What are transmission-based precautions? Explain them in detail category-wise.
b. Discuss in detail: The use of chemical disinfectants as decontaminants.
c. Explain the importance of training evaluation & its importance along with training modules.

Q. 4. Write detailed notes on any two of the following: **(14)**

a. Write a note on safety signs and symbols displayed in the laboratory with examples.
b. State the importance of engineering and building maintenance in the laboratory.
c. Explain: Cleaning, disinfection, and decontamination are of great importance in Laboratory waste disposal.

———