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Question Paper Code: R8C70

B.E./B.Tech. DEGREE EXAMINATION, APRIL /MAY 2025

One Credit Course

Biotechnology

R21UBT870 - BIOSAFETY REGULATIONS

(Regulations R2021)

Duration: 1.30 Hours

Maximum: 50 Marks

Answer ALL Questions

Part A (9x2=18 marks)

1. Define Biosafety level CO1-U
2. Write a short note on Bio-Safety Cabinet. CO1-U
3. Write down the bio-safety measures to be followed in BSL4. CO1-U
4. Write a short note on PPE with example CO1-U
5. List statutory committee and their corresponding ministries under which they function. CO1-U
6. Write a short note on Polymerase Chain Reaction. CO1-U
7. Assume that you have transferred a gene into a vector. Now help me with a method to identify whether the transformation is successful or not. CO1-U
8. Write the procedure to dilution of an acid. CO1-U
9. Write down the Standard Operating Procedure for Handling Centrifuge. CO1-U

Part B (2 x 16= 32 marks)

10. (a) Write a detailed note on different layers of containments used in biological laboratories. CO1-U (16)
- Or
- (b) Write a detailed note on different Bio-safety levels and their corresponding safety measures, Biosafety cabinets and types of microorganisms handled in it. CO1-U (16)

11. (a) The risk of laboratory accidents in the workplace is real, always present, and an integral part of working in a diagnostic laboratory, and in particular the clinical microbiology laboratory. Interpret your learning in Prevention & Management of Laboratory accidents in detail? CO2-App (16)

Or

- (b) Laboratory waste is a potential reservoir of pathogenic microorganisms and requires appropriate handling. The commonest documented transmission of infection from waste to health care workers is through contaminated needle. Interpret your learning in Biomedical waste management in detail? CO2-App (16)