



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, त्रिवेन्द्रम, तिरुवनन्तपुरम - 695 011, केरल, भारत

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21/12/2023

**SYLLABUS FOR WRITTEN EXAM FOR THE SELECTION TO THE POST OF
SCIENTIFIC ASSISTANT (CENTRAL ANALYTICAL FACILITY)-VOP**

Part A:

Quality control and its implications, errors, sensitivity and specificity in diagnostic assays, pH, common buffers, preparation for assays, cell culture, molarity and normality calculation, percentage solutions, conversion to molarity and dilutions, principles of biosafety in laboratories, sterilization and disinfection methods, decontamination and biomedical waste management, automation in laboratories.

Part B:

Precision and accuracy, sensitivity and selectivity, limit of detection and quantification, primary and secondary standards of assays, concentration of solutions, molarity and normality, buffers and their preparation, pH, principles and applications of centrifugation, chromatography and UV-visible spectrophotometer, spectroscopic analysis of biomolecules.

Spectrophotometry and turbidity assays for enzymes and other proteins, diagnostic enzyme assays using chromogenic substrates, methods and clinical significance of blood count, differential WBC count, blood coagulation factors and assays, assays for serum immunoglobulin, serum electrophoresis, assays and clinical significance of blood gases, electrolytes and acid-base balance.


ADMINISTRATIVE OFFICER GR.I (I/C)

21/12/23