QP Code: UV25DR001

Reg. No : .....

Name : .....

ST MARY'S COLLEGE (AUTONOMOUS), THRISSUR-20

I SEMESTER (FYVP) DEGREE EXAMINATIONS, NOVEMBER 2025

ABT1FS111 : Basic Laboratory Practices and Instrumentation

2025 Admission Onwards

(Credits: 3)

Time: 1. 5 Hours **Maximum Marks: 50**

Section A

*Answer **All**. Each question carries **2** Marks.* ***(Ceiling: 16 Marks)***

1. List the use of a spectrophotometer in experiments.
2. Define SDS and list out its importance.
3. Explain how does a centrifuge help in separating components of a mixture.
4. Review the use of masks or respirators inside a laboratory.
5. If a chromatography experiment shows poor separation, what steps would you check?
6. Demonstrate the steps to focus a microscope on a specimen.
7. Calculate the volume required to make 100ml of 0.05M solution from a stock solution of 1M.
8. Categorize the equipments that can be sterilized only with the help of hot air oven.
9. Select a simple experiment using an electrophoresis unit to identify proteins.
10. Explain the steps that must be followed for handling of various types of glasswares.

Section B

*Answer **All**. Each question carries **6** Marks.* ***(Ceiling: 24 Marks)***

11. List the uses of a laminar air flow hood.
12. Explain the various factors that affect the pH of a particular solution.
13. Demonstrate the steps for sterilizing small lab equipment in a hot air oven.
14. Implement the importance of following general laboratory rules for smooth functioning of labs.
15. Evaluate how the GLP practices help a lab to develop a new product.

Turn Over

Section C

*Answer **any one**. Each question carries **10** Marks.* ***(1x10=10 Marks)***

16. Compare the methods used for chemical and biological waste segregation and distribution.
17. Explain in detail the emergency protocols that must be followed in a laboratory.

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