

**QP Code: 203019**

**Reg. No.....**

**Second Year B.Sc. Medical Microbiology Supplementary Examinations**

**April 2017**

**METHODOLOGY AND INSTRUMENTATION**

**Time: 3 Hours**

**Total Marks: 100**

- **Answer all the questions**
- **Draw diagrams wherever necessary**

**Essay**

**(2x15=30)**

1. What is enzyme linked immune-sorbent assay (ELISA). What is the principle and different types of ELISA. Name the enzyme labels and substrates used. Draw a diagram to show the steps. What are its applications.
2. List the different types of microscopes. Describe the function and uses of a light microscope

**Short Essay**

**(2x10=20)**

3. What is chromatography. What is the principle, theory, classification and application of gas liquid chromatography.
4. universal safety precautions.

**Short Notes**

**(6x5=30)**

5. Ultracentrifuge
6. Rabbit : handling and bleeding
7. Fluorescent microscopy
8. Colorimetry
9. Hand washing
10. Two dimensional electrophoresis

**Answer Briefly**

**(10x2=20)**

11. Uses of mice
12. Cold room
13. Incubator.
14. Rocket electrophoresis
15. Specimen preparation in electron microscopy
16. Uses of rabbits
17. pH meter
18. Immunization of animals
19. Phase contrast microscopy
20. Hot air oven

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