

APRIL/MAY 2019

MAM41 — RESEARCH METHODOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 6 = 30 marks)

Answer ALL questions.

1. (a) What are the steps involved in preparation of specimen for electron microscope?

Or

- (b) Write short note on Cathode luminescence.

2. (a) Describe the electromagnetic spectrum.

Or

- (b) Explain about the techniques of infra red spectroscopy. Add a note on its applications.

3. (a) Define radio activity. Give an account on classification and units of radioactivity.

Or

- (b) Explain briefly about differential centrifugation.

4. (a) Write notes on gel documentation and its applications.

Or

- (b) Describe the principles and various applications of GC - MS.

5. (a) Describe the procedure for isolation and purification of DNA.

Or

- (b) Explain the objectives of research.

SECTION B — (3 × 15 = 45 marks)

Answer any THREE questions.

6. Discuss in detail the principle and working mechanism of phase contrast microscope.
7. Write the principle, procedure and applications of NMR.
8. Give an account of ultra centrifugation.
9. Discuss about SDS-PAGE.
10. Explain the principle and method of ELISA technique.