

2024

ANALYTICAL INSTRUMENTATION

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions

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| 1. | a) | With neat diagrams, explain the working of single beam and double beam photometers. | 12 |
| | b) | With a neat diagram, explain the working of an Atomic Absorption Spectrophotometer. | 8 |
| 2. | a) | With neat diagrams, explain any three types of gas analyzers. | 20 |
| 3. | a) | With a block diagram, explain the working of GC. | 6 |
| | b) | Explain any two detectors used in GC. | 14 |
| 4. | | Explain the following: | |
| | a) | Flame Photometer | 10 |
| | b) | XRF Spectrometer | 10 |
| 5. | a) | With neat diagrams, explain any three types of mass spectrometers. | 20 |
| 6. | a) | Explain ISE and its types. | 10 |
| | b) | Explain any two types of gamma ray detectors. | 10 |

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