2403001302030004
EXAMINATION SEPTEMBER 2024 (ATKT EXAM)
BACHELOR OF SCIENCE (BIOTECHNOLOGY) SEM-2
MDC-204 BIOINSTRUMENTATION

[Time: As Per Schedule] **[Max. Marks : 50]**

Instructions:
1. Fill up strictly the following details on your answer book
   a) Name of the Examination: **BACHELOR OF SCIENCE (BIOTECHNOLOGY) SEM-2**
   b) Name of the Subject: **MDC – 204 BIOINSTRUMENTATIONS**
   c) Subject Code No: **2403001302030004**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

Student's Signature

Q.1 Short Question/One word answer Any 10 out of 12: **10**

(a) Define resolving power.
(b) Enlist components of microscope.
(c) Write principle of dark field microscopy.
(d) Write use of Immunofluorescence microscopy.
(e) Full form of SEM and TEM.
(f) Application of confocal microscopy.
(g) Define stationary and mobile phase.
(h) Principle of affinity chromatography.
(i) Define chromatic aberration.
(j) What is relative centrifugal field.
(k) Define angular velocity.
(l) Enlist types of rotors.

Q.2 Short note Any One: **10**

(a) Explain construction and working of bright filed microscope.
(b) Elaborate working of phase contrast microscope.

Q.3 Short note Any One: **10**

(a) Elucidate, construction and working of Fluorescence microscope.
(b) Compare contrast, SEM and TEM.

Q.4 Short note Any One: **10**

(a) Write short note on liquid-liquid chromatography.
(b) Write short note on anion and cation exchange chromatography.

Q.5 Short note Any One: **10**

(a) Derive equation between RPM and RCF and write short note on sedimentation coefficient.
(b) Explain different types of rotors used in centrifuges.

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