<b>Enrollment No:</b>	Exam Seat No:	

## C. U. SHAH UNIVERSITY Summer Examination-2022

**Subject Name: Discipline Specific Elective-III (Instrumentation and Biotechniques)** 

Subject Code: 4SC06IAB1 Branch: B.Sc. (Microbiology)

Semester: 6 Date: 05/05/2022 Time: 02:30 To 05:30 Marks: 70

## **Instructions:**

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1		Attempt the following questions:	<b>(14)</b>
	a)	What is TEM ?	01
	<b>b</b> )	Define electrophoresis.	01
	c)	What is isoelectric point?	01
	d)	Gel filtration chromatography is also known as ion exchange chromatography. (True/False)	01
	e)	Enlist the two phases of 2D gel electrophoresis.	01
	Write a full form of rpm.	01	
	f) g)	What is colorimetry?	01
<ul><li>b) Which lamp is used in UV spectrophotometer?</li></ul>			
	i)	Electron gun is used as a source of electron in electron microscopy.  (True/False)	01 01
	j)	Enlist the types of centrifugations.	01
		Write a full form of HPLC.	01
	<u> </u>	Enlist the parts of compound microscope.	01
	,	Define: Mobile phase.	01
		What is monochromator?	01
Attemp	pt any	four questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	a)	What is centrifugation? give detail note on preparative centrifugation and	07
	,	its types.	
	b)	Write detail note on paper chromatography.	07
Q-3		Attempt all questions	(14)
-	a)	Write a brief note on spectrophotometer and its type.	07
	b)	Enlist the types of electrophoresis and write a detail note on any one.	07



	Attempt all questions	(14)
a)	Write a detail note on confocal microscope and its application.	07
b)	Give a detail note isoelectric focusing gel electrophoresis.	07
	Attempt all questions	(14)
a)	Enlist the types of PAGE and write a detail note on 2D gel electrophoresis.	07
b)	Write a brief note on micrometry or micrometer.	07
		(14)
	Write a detail note on electron microscope, its types and its application.	
	Attempt all questions	(14)
a)	Write a note on colorimeter and its application.	07
b)	Give a detail note on affinity chromatography.	07
	Attempt all questions	(14)
a)	Enlist the types of rotor used in centrifugation and give detail on any two.	07
b)	Write a detail note on ion exchange chromatography.	07
	<ul><li>b)</li><li>a)</li><li>b)</li><li>a)</li><li>b)</li></ul>	<ul> <li>a) Write a detail note on confocal microscope and its application.</li> <li>b) Give a detail note isoelectric focusing gel electrophoresis.</li> <li>Attempt all questions</li> <li>a) Enlist the types of PAGE and write a detail note on 2D gel electrophoresis.</li> <li>b) Write a brief note on micrometry or micrometer.</li> <li>Write a detail note on electron microscope, its types and its application.</li> <li>Attempt all questions</li> <li>a) Write a note on colorimeter and its application.</li> <li>b) Give a detail note on affinity chromatography.</li> <li>Attempt all questions</li> <li>a) Enlist the types of rotor used in centrifugation and give detail on any two.</li> </ul>

