

**Solution**

**Q.1. A. Fill in the blanks** 05

- a) Aspiration; b) Karl Ereky ; c) minisatellite  
d) Cell ; e) Mikhail Tswett.

**B. Match the column.** 05

- |                            |                              |
|----------------------------|------------------------------|
| a) Vaccines                | Hepatitis B virus            |
| b) Microscope              | Resolving power              |
| c) Fahrenheit scale        | Temperature                  |
| d) Beta cells of Langerhan | Insulin                      |
| e) 800nm wavelength        | Red color absorbed by matter |

**C. True of False** 05

- a) True; b) False; c) True; d) False; e) False.

**D) Answer in one sentence.** 05

- a) Histogram is a graphical representation of frequencies and the corresponding class intervals.
- b) Normality is the way to express concentrations when the reacting species react in equivalent proportions instead of their molar masses.
- c) Pharmaceuticals or Foods or Fermentation.
- d) In vivo gene therapy involves introduction of the therapeutic gene directly into the patients body.
- e) Beer- Lambert law.

<b>Q.2</b>	<b>A.</b> Definition of non probability sampling	02
	Explanation of different methods	08
	or	
	A. Enumeration of ten safe laboratory measures	10
	<b>B.</b> Short notes.	
	a) Explanation of subdivided bar diagram	05
	b) Definition of mode	01
	Explanation of types	04
	c) Explanation of normality	05
	d) Enumeration of goals of metric system	05
<b>Q.3</b>	<b>A.</b> Definition of transgenesis	02
	Explanation of transgenesis	08
	OR	
	A. Definition of DNA finger printing	02
	Explanation with suitable example.	08
	<b>B</b> a) Explanation of gene therapy for SCID	05
	b) Explanation of two achievements.	05
	c) Definition of cloning	01
	Explanation with example	04
	d) Explanation of the method	05
<b>Q.4</b>	a) Mention of the parts of microscope with function	07
	Mention of any three applications	03

b) Explanation of principle of pH meter	05
Mention of any five applications	05
c) Explanation of principle of Spectroscopy	05
Mention of any five applications	05
d) Definition of chromatography	03
Explanation of its types	07
<b>Q.5</b> a) Definition of toxic and corrosive chemicals	02
Explanation	03
b) Explanation	05
c) Explanation	05
d) Explanation	05
e) Definition	01
Explanation	04
f) Mention of five applications	05

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