PR IX (01) 23

Biology (New)

9th (Fresh/Reappear)

Note: **Time allowed for Section – B and Section – C is 2 Hours and 45 minutes.**

Section – B

Marks: 32

Q.II Answer any EIGHT parts. Each part carries FOUR marks.

1. Briefly explain relationship between biology and agriculture.
2. Briefly explain crystallization as a unique character of virus.
3. What was Rudolf Virchow statement about cell and who support him and how?
4. Collenchyma tissues differ from sclerenchyma tissues in plants, how?
5. Enlist main events, taking place in G1-phase of interphase.
6. Differentiate between mitosis and meiosis with the help of the following table:

Mitosis	Meiosis
Anaphase	
Anaphase	Anaphase – 1
Telophase	
Telophase	Telophase – 1

7. Briefly describe Lock and Key Model of enzyme action.
8. Complete the following graphic organizer.

   Glycolysis is the breakdown of one molecule of [ ] into two molecule of [ ]
   it takes place in [ ] there is net [ ]

9. Complete the following table:

Properties	Fats	Proteins
Main Sources		
Energy Value		

10. How can plants normalize transpiration?
11. Briefly explain pulmonary circulation.

Section – C

Marks: 21

Note: **Attempt any THREE questions. All questions carry equal marks.**

Q-III (a) How do scientist organize their data? Give any three example.

(b) Why species of Shermahi and Marcopolo sheep are reducing in Pakistan?

Q-IV (a) What is the structure and function of mitochondria in eukaryotic cells?

(b) Define mitotic apparatus in plant cells.

Q-V (a) What is the difference between the working of mitochondrial enzyme and pepsin enzyme?

(b) Explain Electron Transport Chain as an important step of aerobic respiration.

Q-VI (a) How inorganic fertilizers are useful for plant?

(b) Define capillary. Write any three functions of capillary.