



Seat No. \_\_\_\_\_

## **HR-BP808ET**

### **B. Pharm. (Sem. VIII) Examination**

**April - 2023**

### **Biology**

*(Cell & Molecular Biology)*

Time : 3 Hours / Total Marks : 75

- Instructions :** (1) Answer all questions, draw neat and clean labeled diagram as and when required.  
(2) Figures of the right indicate marks of the question.

**1** Answer all questions each carry **2** marks : **2×10=20**

- (1) Write a brief note on cell membrane.
- (2) Which chemicals plays an important role in cell ?
- (3) What do you mean by B-DNA ?
- (4) What are the functions of RNA ?
- (5) Enlist different types of cellular reproduction.
- (6) Enlist different properties of nucleus.
- (7) Enlist different phases of cellular reproduction.
- (8) Draw a neat and clean diagram of tRNA.
- (9) Define regulation of cell signaling.
- (10) Briefly describe the importance of endocrine signaling.

**2** Answer any **2** out of **3** questions, each carry **10** marks. **10×2=20**

- (1) Write a detailed note on DNA synthesis and repair in eukaryotic cell.
- (2) Write a detailed note on ion channel and g protein coupled receptor.
- (3) Write a detailed note on Meiosis.

**3** Answer any 7 out of 9 questions, each carry 5 marks : **5×7=35**

- (1) Briefly explain about signal transduction pathway.
  - (2) Elaborate mitosis process.
  - (3) Enlist different types of protein structure. Explain tertiary structure in detail.
  - (4) Elaborate differences between eukaryotic and prokaryotic cell.
  - (5) Why positive control in gene expression is important ? Explain with example.
  - (6) Write a detailed note on protein kinases.
  - (7) Write a detailed note on secondary structure of protein.
  - (8) Write a short note on importance of cell signaling.
  - (9) Write a short note on mRNA and rRNA.
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