

INTERNAL EXAMINATION (ODD SEM-FEB 2023)

Semester I/ Physiology Honours (PHYA)

Date: 03/1/2023

Time: 11 am-12Noon (2 hours)

Paper-CC1

Cellular Basis of Physiology & Enzyme

Full marks: 10

A. Answer any 10 from the following:

1X10=10

- 1) What are ionophores? Give example
- 2) What is ribozyme?
- 3) What is K_m ?
- 4) Mention the function of centrosome.
- 5) What is 'Packing ratio'?
- 6) What do you mean by allosteric enzyme?
- 7) What is 'Check point' in cell cycle?
- 8) How coenzyme differ from prosthetic group?
- 9) What is autophagy?
- 10) Distinguish between primary and secondary active transport.
- 11) What is an 'epistatic gene'?
- 12) What are gap junctions (connexon)?
- 13) What is microsatellite and minisatellite DNA?
- 14) What are the functions of caspases?
- 15) What are isozymes?
- 16) What do you mean by pleiotropism?

Paper-CC2

Biophysical Principles, Instrumentation and Biochemistry

Full marks: 10

A. Answer any 10 from the following:

1X10=10

- 1) State the First Van't Hoff law of osmotic pressure.
- 2) Explain epimerism with examples.
- 3) State Beer's law.
- 4) Write the structure and systemic name of linolenic acid.
- 5) What happens when glucose is heated with dilute aqueous alkali?
- 6) Write the structure and chemical name of arginine.
- 7) Define iodine number. What does it signify?
- 8) Define pH.
- 9) Distinguish between lyophilic and lyophobic colloid (any two).
- 10) What is a zwitterion?
- 11) Define zeta potential.
- 12) State the 1st law of thermodynamics.
- 13) What is half Cot value?
- 14) Write any two features of secondary structure of B-DNA.
- 15) State any two uses of fluorescence microscope.
- 16) State the physiological importance of sphingolipids (any two).