(*ii*) Signal transduction and Receptors

(*iii*) Photophysiology.

3. Write an account on photosynthesis. 13

Or

Write notes on any *two* of the following : $6\frac{1}{2} \times 2$

(*i*) Mechanism of electron flow

(*ii*) C_4 pathway for carbon reduction

(*iii*) Photorespiration.

M.Sc– L.Sc.-IIIS (732)

2019

(January)

Time : 2 hours

Full Marks : 40

Answer all questions from any **one** Group as per your specialisation and accordingly

The figures in the right-hand margin indicate marks

Draw neat labelled diagrams wherever necessary

GROUP– A

(BIOLOGY OF CHORDATA)

1. Describe the structure and affinities of Cyclostomata. 14

Or

Write notes on any *two* of the following : 7×2

(*i*) Origin of chordata

(*ii*) Distribution and structure of Dipnoi

(*iii*) Origin of Tetrapoda.

2. Describe the structure and characters of Gymnophiona 13

Or

Write notes on any *two* of the following : $6\frac{1}{2} \times 2$

(*i*) Parental care in Amphibia

(*ii*) Parental care in Fishes

(*iii*) Explain Mammals like Reptiles.

3. Describe comparative anatomy of integument and Jaw-suspensorium in vertebrates. 13

Or

Write notes on any *two* of the following : $6\frac{1}{2} \times 2$

(*i*) Explain adaptive radiation in Mammals

(*ii*) General account of Metatheria

(*iii*) Flight adaptations in birds.

GROUP– B

(PLANT PHYSIOLOGY)

1. Describe the stomatal mechanism and transpiration ratio. 14

Or

Write notes on any *two* of the following : 7×2

(*i*) Principles of absorption of water and ascent of sap.

(*ii*) Translation organic materials in phloem

(*iii*) Role of essential elements and deficiency symptoms.

2. Describe the mechanism of sensor and regulatory systems. 13

Or

Write notes on any *two* of the following : $6\frac{1}{2} \times 2$

(*i*) Phytochromes and their photochemical properties