

20E(A)

SCIENCE
Part - II : Biological Science
(English Version)
Part A and B

Time : 1 hour 30 min.

(Maximum Marks : 40)

Instructions :

1. Read the Question Paper carefully and understand.
2. Answer the questions under **Part-A** in the answer sheet provided.
3. **Part-A** contains **three sections** - Section I, II and III
4. **Part-B** answers should be written in the given brackets and attach to the **Part-A** answer sheet.
5. Write the answers by following instructions given in the each section.

PART - A

Time : 1 hour 15 min.

Marks : 30

SECTION - I

3 × 2 = 6

Instructions :

- (i) This section contains 3 very short answer questions.
 - (ii) Answer ALL the questions.
 - (iii) Write the answers in 3 - 4 sentences.
 - (iv) Each question carries 2 marks.
1. Write two materials required to conduct an experiment to prove Sunlight is essential for Photosynthesis.

20E(A)

2. Name two fossil fuels that are used in daily life.
3. What will happen if there is no mucus in the Oesophagus?

3 × 4 = 12

SECTION - II

Instructions :

- (i) This section contains 3 short answer questions.
- (ii) Answer ALL the questions.
- (iii) Write the answers in 5 - 6 sentences.
- (iv) Each question carries 4 marks.

4. Write four differences between arteries and veins.
5. Name any four secondary metabolites that are used in daily life and write their uses.
6. Observe the following table.

Vitamin	Deficiency disease	Symptoms
Thiamin	Beri beri	Vomitings, difficulty in breathing.
Retinol	Eye, Skin diseases	Night blindness, Cornea failure, Xerophthalmia.
Tocopherol	Fertility related disorders	Sterility in males, abortions in females.
Niacin	Pellagra	Dermatitis, diarrhoea, loss of memory.

Answer the following questions based on the given table.

- (i) Name two water soluble vitamins from the table.
- (ii) Write two fat soluble vitamins from the table.
- (iii) Which vitamin from the given table is called vitamin 'E'?
- (iv) Write any one deficiency disease caused due to deficiency of vitamin 'A'.

SECTION - III

2 × 6 = 12

Instructions :

- (i) This section contains **3** essay type questions.
- (ii) Answer any **TWO** questions.
- (iii) Write the answer in **8 - 10** sentences.
- (iv) Each question carries **6** marks.

- 7. Explain the various stages of Mitosis
- 8. Draw a labelled diagram of a Nerve cell and explain the structure.
- 9. Explain the procedure and results of the experiment that proves "Heat is released during Respiration".