**SVKM's NMIMS**
**SCHOOL OF AGRICULTURAL SCIENCES AND TECHNOLOGY**

Programme: B.Sc. Agriculture Year: I Semester: I

**Academic Year: 2019-20**

Subject: Fundamentals of Crop Physiology

Date: 20 December 2019

Marks: 50
Time: 11.00 am - 1.00 pm
Durations: 2 (Hrs)
No. of Pages: 01

**Final Examination**

Note: Attempt All Questions.

| Q1. | **Fill in the blanks:** | 10 X 1 = [10] |
|---|---|---|
| a. | Father of Plant Physiology | |
| b. | The sugar factory of cell is | |
| c. | In stem and root of dicots, new ring of xylem and phloem arise from | |
| d. | Sleep movements exhibited by plants are called | |
| e. | An example of long day plant | |
| f. | The cation involved in stomatal closure | |
| g. | *Khaira* disease of rice is due to deficiency of | |
| h. | Site of TCA cycle is | |
| i. | The stem elongation hormone is | |
| j. | The number ATPs generated by non cyclic photophosphorylation is | |

| Q2. | **Give a brief account on any five:** | 5 X 2 = [10] |
|---|---|---|
| 1. | Enlist the various metabolic processes occurring in plants and provide one major role of each process. | |
| 2. | Explain the movements of curvature exhibited by plants. | |
| 3. | Draw the structure of mitochondria and label its parts. | |
| 4. | Explain water potential and its components. | |
| 5. | Enlist and describe the complex permanent tissues in plants. | |
| 6. | Define photoperiodism. Classify plants based on photoperiod requirement. Give examples. | |

| Q3. | **Describe in detail:** | 3 X 10 = [30] |
|---|---|---|
| A. | Explain the contribution of plant physiology in improving crop yield. | |
| B. | Explain all the simple permanent tissues in plants. | |
| C. | Define plant hormones. Explain the function of various plant hormones. | |
| D. | Describe the functions of various mineral nutrient elements in plants. Give brief on their deficiency symptoms. | |
| E. | With a neat diagram describe the ABC model of floral organ identity. | |