Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Apr/May – 2018**

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| **Code :** | **17AG1006** | **Duration :** | **3hrs** |
| **Sub. Name :** | **CROP PHYSIOLOGY** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
|  | **PART-A(20X1=20 MARKS)** | | |
| 1. | The seeds which just wait for the suitable environment conditions to germinate are said to be   1. Dormant b) quiescent c) thirsty d) none of the above | CO1 | 1 |
| 2. | Write the organelle involved in Photo respiration \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 3. | The symbol of water potential is \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 4. | Hen and chicks in grapes is due to \_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 5. | Hormone responsible for seed germination is \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 6. | The dye used for testing the viability of the seeds is \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 7. | The primary form of sugar transport is \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 8. | An example for CAM plant is \_\_\_\_\_\_\_\_\_\_.   1. Rice b) Sroghum c) Maize d) Pineapple | CO2 | 1 |
| 9. | Plasma membrane is \_\_\_\_\_\_\_\_\_\_ permeable. | CO1 | 1 |
| 10. | The range of PAR is \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 11. | The most common type of transpiration found in plants is   1. Stomatal b) lenticular c) cuticular d) all the above | CO1 | 1 |
| 12. | Harvested fruits and vegetables stay metabolically active until consumption  {TRUE/ FALSE} | CO2 | 1 |
| 13. | The first stable compound in C3 cycle \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 14. | Expansion of LAI and formula is \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 15. | The precursor for ethylene is \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 16. | The hormone responsible for stomatal closure is \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 17. | The first CO2 acceptor in C3 cycle is \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 18. | Give an example for imbibition in plants | CO1 | 1 |
| 19. | The pathway of water movement through plasmodesmata known as \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 20. | Blossom end rot in tomato is due to \_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |

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|  | **PART B(10 X 5= 50 MARKS)**  **(Answer any 10 from the following)** | | |
| 21. | Role of ethylene in fruit ripening. | CO2 | 5 |
| 22. | Significance of transpiration in plants. | CO2 | 5 |
| 23. | Role of GA in seed germination. | CO1 | 5 |
| 24. | Brief account of growth respiration and maintenance respiration. | CO1 | 5 |
| 25. | Write about the artificial methods of breaking the dormancy of seeds. | CO1 | 5 |
| 26. | Differentiate: Oxidative phosphorylation and photophosphorylation. | CO2 | 5 |
| 27. | Write in brief: Criteria of essentiality of nutrients and mechanism of water absorption. | CO1 | 5 |
| 28. | Discuss on longevity or viability of seeds. | CO1 | 5 |
| 29. | List out the Physiological functions of Ca, Mg, and S. | CO3 | 5 |
| 30. | Difference between photorespiration and dark respiration. | CO2 | 5 |
| 31. | Physiological effects of ABA and Cytokinin. | CO2 | 5 |
| 32. | Non cyclic photophosphorylation. | CO2 | 5 |

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|  | **PART C(2 X 15= 30 MARKS)**  **(Answer any 2 from the following)** | | | |
| 33. | a. | Draw the Z-scheme of photophosphorylation | CO2 | 8 |
| b. | Describe in detail C4 pathway of carbon fixation | CO2 | 7 |
| 34. | a. | Explain various steps of TCA cycle and its significance in plant respiration | CO2 | 7 |
| b. | Explain the alternate respiration with diagram | CO2 | 8 |
| 35. | a. | List out the physiological functions of Auxin, GA and cytokinins | CO1 | 7 |
| b. | Define: Climacteric and non-climacteric fruits with examples | CO1 | 8 |