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

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**End Semester Examination – Nov / Dec – 2018**

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| **Code :** | **18AG1009** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF CROP PHYSIOLOGY** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
|  | **PART-A(20X1=20 MARKS)** | | |
| 1. | The gravitational potential is important in \_\_\_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 2. | The water potential at field capacity is \_\_\_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 3. | The water potential is always negative in plants \_\_\_\_\_\_\_\_\_\_\_\_ (True/False) | CO1 | 1 |
| 4. | Hen and chicks in grapes is due to \_\_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 5. | The precursor of ethylene is \_\_\_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 6. | Interveinal chlorosis in young leaves is due to deficiency of \_\_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 7. | The primary form of sugar transport is \_\_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 8. | The plants opens stomata during night and closes during day is \_\_\_\_\_\_\_\_\_\_.   1. Rice b) Sroghum c) Maize d) Pineapple | CO1 | 1 |
| 9. | Organalled involved in protein biosynthesis is \_\_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 10. | One micro meter = \_\_\_\_\_\_\_\_\_\_\_\_ nano meter | CO1 | 1 |
| 11. | The most common type of transpiration found in plants is \_\_\_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 12. | The electron donor in photophosphorylation is \_\_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 13. | The first stable compound in C3 cycle is \_\_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 14. | Expansion of LAD and formula is \_\_\_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 15. | The precursor for auxin is \_\_\_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 16. | The hormone responsible for stomatal closure is \_\_\_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 17. | Kranz anatomy present in \_\_\_\_\_\_\_\_\_\_\_\_ plants | CO2 | 1 |
| 18. | CO2 entry into plants through stomata is an example for diffusion in plants | CO1 | 1 |
| 19. | The pathway of water movement through plasmodesmata known as \_\_\_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 20. | Reddening in cotton is due to \_\_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |

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| **PART B(10 X 5= 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Brief the mechanism of nutrient uptake. | CO2 | 5 |
| 22. | Differentiate transpiration and guttation in plants. | CO1 | 5 |
| 23. | Role of GA in seed germination. | CO2 | 5 |
| 24. | Write the formula for LAI, CGR, NAR, and HI. | CO3 | 5 |
| 25. | Write about the artificial methods of breaking the dormancy of seeds. | CO1 | 5 |
| 26. | Write the flow chart of biosynthetic pathway of auxins. | CO2 | 5 |
| 27. | Write in brief about mechanism of water absorption. | CO1 | 5 |
| 28. | Role of ABA in stress tolerance in plants. | CO2 | 5 |
| 29. | Enumerate the commercial application of PGRs in horticultural crops. | CO2 | 5 |
| 30. | Detail the oxidative phosphorylation. | CO2 | 5 |
| 31. | List out the Physiological functions of Ca, Mg, S and Boron. | CO2 | 5 |
| 32. | Draw the Z-scheme of photophosphorylation. | CO2 | 5 |

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| **PART C(2 X 15= 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
| 33. | a. | Detail the importance of Crop Physiology in Agriculture. | CO1 | 8 |
| b. | Describe in detail C4 pathway of carbon fixation. | CO2 | 7 |
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| 34. | a. | Describe the CAM pathway with examples. | CO2 | 8 |
| b. | Explain glycolysis with energy budgeting of respiratory pathway. | CO1 | 7 |
|  |  |  |  |  |
| 35. | a. | List out the physiological functions of GA and cytokinins. | CO2 | 8 |
| b. | Write short notes on fattiacid biosynthesis. | CO1 | 7 |