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

G:\logo and QP Template\logo 3 Feb 2018 final.tif

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

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **18HO1002** | **Duration :** | **3hrs** |
| **Sub. Name :** | **GROWTH AND DEVELOPMENT OF HORTICULTURAL CROPS** | **Max. marks :** | **100** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
|  | **PART-A(20X1=20 MARKS)** | | |
|  | **Choose the correct answer** |  |  |
| 1. | Auxin is synthesized mainly in \_\_\_\_\_\_\_\_\_\_\_.  a. Roots b. Meristermatic regions of the plant c.Shoots d. Leaves | CO1 | 1 |
| 2. | Richest source of gibberellin in higher plant is \_\_\_\_\_\_\_\_\_\_\_.  a. Root b. Stem c. Leaf d. Immature seeds. | CO3 | 1 |
| 3. | Fruit ripening hormone is \_\_\_\_\_\_\_\_\_\_\_.  a. Ethylene b. Auxinc. Kinetin d. All of above | CO1 | 1 |
| 4. | ABA occurs in plants predominantly in  a. Roots b. Stems c. Mature green leaves d. Flowers | CO1 | 1 |
| 5. | The credit for discovery of kinetin goes to   1. Miller *et al*b. Letharn*et al* c. Zachau*et al* d. none of the above | CO1 | 1 |
|  | **Fill in the blank** |  |  |
| 6. | Gibberellins are derivatives of \_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 7. | \_\_\_\_\_\_\_\_\_\_\_ naturally occurring growth inhibitor in plants | CO2 | 1 |
| 8. | \_\_\_\_\_\_\_\_\_\_\_ is an example for the climatric fruit | CO2 | 1 |
| 9. | \_\_\_\_\_\_\_\_\_\_\_ is an PGR used for controlling weeds | CO2 | 1 |
| 10. | \_\_\_\_\_\_\_\_\_\_\_ Growth retardant is used for the sprouting of Onion | CO3 | 1 |
|  | **True or false** |  |  |
| 11. | Spinach is an example for long Day plants. | CO2 | 1 |
| 12. | 2,4,D is a synthetic auxin. | CO1 | 1 |
| 13. | Malic acid occurs naturally in all fruits and many vegetables. | CO3 | 1 |
| 14. | NAA 50 ppm is used for controlling the fruit drop. | CO3 | 1 |
| 15. | Seedless fruits are developed by spraying 2,4-D 25 ppm. | CO3 | 1 |
|  | **Match the following** |  |  |
| 16. | Jasminum Grandiflorum - GA 3 60 ppm. | CO1 | 1 |
| 17. | Auxin - GA3 1000 to 8000 ppm. | CO2 | 1 |
| 18. | Paclobutrazol - Cycocel 500 PPM | CO2 | 1 |
| 19. | Breaking dormancy - Soil application | CO3 | 1 |
| 20. | Parthenocarpy fruits in guava - Basepetal | CO3 | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| **PART B(10 X 5= 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Indicate the role of Gibberellins in flowering? | CO1 | 5 |
| 22. | Write a note on Vernalisation? | CO2 | 5 |
| 23. | Mention the role of Cytokinin? | CO1 | 5 |
| 24. | Explain the factors causing dormancy of seeds? | CO3 | 5 |
| 25. | Discuss about the physiological effects of Gibberellins? | CO1 | 5 |
| 26. | Write a note on source and sink relationship ? | CO2 | 5 |
| 27. | Differentiate between short day and long day plants? | CO2 | 5 |
| 28. | Discuss the significance of photoperiodism? | CO2 | 5 |
| 29. | What are the different factors affecting the fruit set? | CO3 | 5 |
| 30. | Write a short note on canopy management? | CO1 | 5 |
| 31. | Explain about the leaf area index? | CO1 | 5 |
| 32. | Define fruit drop? Mention ways to control fruit drop with examples? | CO3 | 5 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PART C(2 X 15= 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
| 33. | a. | Explain the physiology of ripening of fruits? | CO2 | 8 |
| b. | Discuss about the physiology of fruits under post-harvest storage? | CO3 | 7 |
|  |  |  |  |  |
| 34. | a. | Explain the physiology behind training and pruning of Horticultural crops? | CO3 | 8 |
| b. | Discuss the different growth analysis parameters in Horticultural crops? | CO1 | 7 |
|  |  |  |  |  |
| 35. | a. | Discuss the role of growth retardents in Horticultural crops? | CO1 | 8 |
| b. | Explain the Role of Ethylene inhibitors in Horticultural crops? | CO2 | 7 |