AAS-003-001406 Seat No. _____

B. Sc. (Sem. IV) (CBCS) Examination

April / May - 2016

B-401 : Botany

(Applied Botany)

(New Course)

Faculty Code : 003

Subject Code : 001406

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (1) Write answers of all questions.

(2) Draw neat and labelled diagrams wherever necessary.

(3) Figures to the right side indicate full marks for the questions.

1 Choose the correct answers and write in the answer book. **20**

(1) Wounded regions are repaired by _____ meristem.

(A) Primary (B) Secondary

(C) Apical (D) None of above

(2) Main function of lenticles is _____.

(A) transpiration (B) guttation

(C) gaseous exchange (D) bleeding

(3) The healing of wounds in plants taken place by the activity of

(A) Apical Meristem (B) Lateral meristem

(C) Secondary meristem (D) Intercalary meristem

(4) Buliform cells are present in

(A) Vascular bundles (B) Bundle Sheath

(C) Epidermis (D) Mesophyll

(5) After fertilization the seed coat of a seed develops from

(A) Chalaza (B) Embryosac

(C) Integuments (D) Nucellus

(6) In C_3 plants, the first stable product of photosynthesis during the dark reaction is _____.

(A) Phosphoglyceraldehyd (B) Oxaloacetic acid

(C) Malic acid (D) 3-Phosphoglyceric acid

(7) Hormone responsible for senescence is _____

(A) ABA (B) Auxin

(C) GA (D) Cytokinin

(8) Minerals are absorbed by plants _____ in

(A) Colloidal form (B) Ionic form

(C) Solid form (D) Molecular form

(9) Mulching is process that helps in _____.

(A) Moisture conservation (B) Weed control

(C) Soil fertility (D) Improve soil structure

(10) The first satellite of India was _____.

(A) IRSIA (B) TIROS-I

(C) Bhaskar I and II (D) Commet

(11) Most important causative pollutant of soil may be

(A) Plastics (B) Iron junks

(C) Detergents (D) Glass junks

(12) Biofertilizers help in

(A) Killing pests

(B) Preventing pest growth

(C) Retaining soil fertility

(D) None of above

(13) The movement of solutes in plants follows _____.

(A) Diffusion pattern (B) Osmotic pattern

(C) Totipotency (D) Imbibition

(14) _____ is an example of monosporic, 8 nucleate type of embryosae

(A) Plumbago type (B) Allium type

(C) Polygonium type (D) Fritillaria type

(15) Grafting is not possible in monocoats because

(A) Have paralled venation

(B) Lacke cambium

(C) Have scattered vascular bundles

(D) None of above

(16) A plant breeder wants to develop a disease resistant variety, what he should do first _____ ?

(A) Mutation (B) Selection

(C) Hybridization (D) Production of crop

(17) Overgrazing by animals result in _____.

(A) Sheet erosion (B) Rill erosion

(C) Mulching (D) Gull erosion

(18) The result of ozone hole is _____.

(A) Acid rain (B) Global Warming

(C) U.V. radiations (D) Green house effect

(19) _____ is a one of the useful equipment for plant collection during field trips.

(A) Operculum (B) Vasculum

(C) Water spray (D) Stains

(20) Soil erosion can be prevented by

(A) Overgrazing (B) Removal of vegetation

(C) Afforestation (D) Increasing grazing

2 (a) Answer the following questions in brief : (any three) **6**

(1) Write name of macro and micro elements essential for plant growth.

(2) What is Lenticel ? Write their functions.

(3) What is floriculture ?

(4) Write any two physiological roles of Gibberlins.

(5) What is meant by term Graft-bybrid.

(6) Define – Double Fertilization.

(b) Answer the following questions as per requirement : (any three) **9**

(1) Explain Bonsai as a technique.

(2) Explain – Munch's mass-flow theory.

(3) What are the scope and opportunities of horticulture ?

(4) Explain Biosporic Embryosac.

(5) Write notes on Herbarium and its uses.

(6) What are the application of remote sensing as tool.

(c) Answer the questions in detail : (any two) **10**

(1) What is variation ? Describe importance of types of variations in plant breeding.

(2) Write note on Green Revolution.

(3) Describe physiological role, action mechanism and bioassay of Auxin.

(4) Write notes on – Soil Conservation

(5) Describe Glandular tissue system.

3 (a) Answer the following questions : (any three) **6**

(1) What is solid waste management ?

(2) What is tylosis ?

(3) Explain term periderm.

(4) Write brief note about antibiotics.

(5) Explain the term - Bud grafting

(6) Write on methods of selection for plant improvement.

(b) Answer in brief : (any three) **9**

(1) Explain the term layering.

(2) Describe – Tetrasporic Embryosac

(3) What is meant by soil profile ?

(4) Give the importance of "mg" for plant growth.

(5) Write note on Repining hormone.

(6) Write about Hybrid vigour.

(c) Answer the questions in detail : (any two) **10**

(1) What is biofertilizer ? Write about different types organisms applied as biofertilizers.

(2) Explain – Biotechnological methods for crop improvement.

(3) Describe – abscission and wound healing.

(4) Explain CO_2 fixation mechanism in C_4 plants.

(5) Describe - Global Warming
