No. of Printed Pages : 4 **Sem-II-Bot-CC-3(R&B)**

2023

Time - 3 hours

Full Marks - 60

*Answer **all groups** as per instructions.*
Figures in the right hand margin indicate marks.
Candidates are required to answer
in their own words as far as practicable.
Draw labelled diagrams wherever necessary.

GROUP – A

1. Fill in the blanks. (all) [1 × 8

(a) The cell membrane in fungi contains _____ in place of cholesterol.

(b) The fungus which shows both sexual and asexual method of reproduction is _____.

(c) Cell wall in fungi is composed of a polymer called _____.

(d) When a portion of thallus take part in reproduction, then the thallus is called _____.

(e) When a disease occurs in very irregular manner or in few instances is called _____.

P.T.O.

(f) When an endemic spreads over continent and involves mass mortality, the disease is said to be _____.

(g) Phytoalexins are produced by _____.

(h) Extreme chlorosis in a plant is also called _____.

GROUP – B

2. Write notes on <u>any eight</u> of the following within two to three sentences each. [1½ × 8

(a) Edaphic factors on disease

(b) Disease cycle

(c) Biological control agents

(d) Biotroph

(e) Disease triangle

(f) Endemic disease

(g) Facultative saprotrophs

(h) Systemic fungus

(i) Chemical component of cell well

(j) Dikaryotic life cycle

GROUP – C

3. Write notes on any eight of the following within 75 words each. [2 × 8

(a) Sclerotia

(b) Rhizomorph

(c) Predacious fungi

(d) Heterothallism

(e) Integrated disease management

(f) Quarantine

(g) Components of disease

(h) Fermentation

(i) Biofertilizers

(j) Fungi in beer wine production

GROUP – D

4. Answer any four of the following questions within 500 words each.

(a) Discuss the role of fungi in pharmaceutical preparation and agriculture. [6

(b) Describe the methods of cultivation of mushrooms. [6

(c) What do you mean by disease ? Give a classification of plant diseases. [6

(d) Give an account of host-pathogen relationship. [6

(e) Describe the life cycle, ecology and classification of Phytophthora. [6

(f) Describe about life cycle, ecology and classification of Puccinia. [6

2023

Time - 3 hours

Full Marks - 60

*Answer **all groups** as per instructions.*
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Candidates are required to answer
in their own words as far as practicable.
Draw labelled diagrams wherever necessary.

GROUP – A

1. Fill in the blanks. (all) [1 × 8

(a) The group of plants having archegonia are called _____.

(b) _____ put forth a classification of Archegoniates.

(c) Spores fully coated with a biologically degradable compound is called _____.

(d) Development of sporophyte directly from a gametophyte without intervention of sex organs and gametes are called _____.

(e) Reproduction taking place in roots or leaves is _____.

(f) In case of ferns when the leaf gaps overlap the vascular strands the stele is called _____.

(g) In gymnosperms, the leaves which are larger in size are called _____.

(h) In Cycas, the lateral roots are modified and give rise to dwarf coral like masses are called _____.

GROUP – B

2. Write notes on <u>any eight</u> of the following within two to three sentences each. [1½ × 8

(a) Origin of land plants

(b) Alternation of generations

(c) Transition to land habits

(d) Homospory

(e) Sporangium

(f) Rhizophore

(g) Strobilus

(h) Ovule of Gnetum

(i) Male cone of Ginkgo

(j) Stele

GROUP – C

3. Write notes on any eight of the following within 75 words each. [2 × 8

(a) Heterospory

(b) Haplontic life cycle

(c) Transformation theory

(d) Mature prothallus

(e) Vegetative propagation

(f) Stem anatomy of Lepidodendron

(g) Poleo-ecology of Rhynia

(h) Sterigmata

(i) Ovule of Cycas

(j) Heterospory

(k) Geological history of Calamites

GROUP – D

4. Answer any four of the following questions within 500 words each.

(a) Describe the anatomical features of Lyginopteris. [6

(b) Write an essay on general characteristic features of Pteridophytes. [6

(c) Describe the ecology, habitat, distribution and vegetative structure of Selaginella. [6

(d) Describe the evolution and alternation of generations in Archegoniates. [6

(e) Describe the morphological features of Pinus sporophyte. [6

(f) Ginkgo is a living fossil. Justify the statement. [6

No. of Printed Pages : 4

Sem-II-Bot-GE-B_1(R&B)

2023

Time - 3 hours

Full Marks - 60

*Answer **all groups** as per instructions.*
Figures in the right hand margin indicate marks.
Candidates are required to answer
in their own words as far as practicable.
Draw labelled diagrams wherever necessary.

GROUP – A

1. Answer all questions and fill in blanks as required. [1 × 8

(a) Viruses are _____ parasites.

(b) Bacteria which is in association with legume roots are called _____.

(c) _____ pigment is present in the root nodule of leguminous plants for growth of bacteria.

(d) 'Agar Agar' is obtained from _____.

(e) Which alga serves as a biofertilizer in the field ?

(f) Who discovered bacteria ?

P.T.O.

(g) In Polysiphonia, asexual reproduction takes place by means of non-motile haploid _____.

(h) Which fungus is edible ?

GROUP – B

2. Explain any eight of the following within two to three sentences each. [1½ × 8

(a) Plant diseases caused by bacteria

(b) Symbiotic bacterium

(c) Name two species of bacteria useful in vinegar industry.

(d) T.M.V.

(e) Symbiosis

(f) Conjugation

(g) Give the name of one foliose lichen.

(h) Fungal component of lichen belongs to class ?

(i) Bacteriophage

(j) Name two algae in the production of antibiotics.

GROUP – C

3. Write notes on <u>any eight</u> of the following within 75 words each. [2 × 8

(a) Vegetative structure of Chlamydomonas

(b) Economic importance of algae

(c) Transformation

(d) Lytic life cycle

(e) DNA virus

(f) Internal structure of lichen thallus

(g) Importance of bacteria in industries

(h) Nitrogen fixation

(i) Replication of virus

(j) Nutrition in Algae

GROUP – D

4. Answer <u>any four</u> of the following questions within 500 words each.

(a) Write about discovery, general structure and replication of virus. [6

(b) Write about the vegetative, asexual and recombination in bacteria. [6

(c) Write briefly about the life history of Polysiphonia. [6

(d) Write about general characters, ecology and range of thallus organisation of Puccinia. [6

(e) Write about the classification, range of thallus structure, anatomy and reproduction of Funaria. [6

(f) Write about heterospory and seed habit in Selaginella. [6