

20749

M-3203

Total No. of Pages : 2

Sl.No. 0670

I Semester B.Sc. Examination, Nov./Dec. - 2016
(Semester Scheme)

BOTANY (Paper - I) (2015 Onwards)
Microbial Diversity and Phycology

Max. Marks : 60

Time : 3 Hours

Instruction : Draw neat labelled diagrams wherever necessary.

I. Explain / define any Five of the following.

[5 × 2 = 10]

1. Soil protozoans
2. Ivanowsky
3. Capsule
4. Nucleoid
5. Chromoplasm
6. Chlorellin
7. Pysenoid

II. Write notes on any Four of the following.

[4 × 5 = 20]

8. Living and non living characteristics of viruses.
9. History, discovery and characteristics of Mycoplasma.
10. Bacterial Bio fertilizers.
11. Female conceptacle in sargassum.
12. Reproduction in Caulerpa.
13. Cystocarp of Polysiphonia.



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15 x 6 = 30

III. Answer any Five of the following.

14. Soil Bacteria
15. Lysogenic cycle in Bacteriophage.
16. Conjugation in Bacteria.
17. Role of bacteria in rotting of fibres, production of alcohols and acids.
18. Structure and reproduction in sargassum.
19. Economic importance of Algae.
20. Structure and vegetative reproduction in Oedogonium.



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Sl.No. 0138

M-175

Total No. of Pages : 1

II Semester BSc. Examination, May/June 2016
(Semester Scheme)

BOTANY (Paper - II) (Prior 2015-2016)

Mycology, Plant Pathology, Lichens and Bryophytes

Time : 3 Hours

Max. Marks : 60

Instruction : Draw labelled diagrams wherever necessary.

Q1) Explain/Define any five of the following

[5 × 2 = 10]

- a) Sterigmata
- b) Bordeaux mixture
- c) Basidium
- d) Tikka disease
- e) Protonema
- f) Meristematic zone
- g) Apophysis

Q2) Write notes on any four of the following

[4 × 5 = 20]

- a) Nutritional values of mushrooms
- b) Internal structure of lichen thallus
- c) Asexual reproduction in albugo
- d) Classification of Fungi
- e) Structure of antheridiophore
- f) Internal structure of anthouros thallus

3) Give a detailed account of any five of the following

[5 × 6 = 30]

- a) Thallus organization in Fungi
- b) Koleroga
- c) Sexual reproduction in penicillium
- d) Wheat rust
- e) Neem and trichoderma
- f) Sporophyte of Funaria
- g) Thallus of Marchantia



Pteridophyta, Gymnosperms, Anatomy and Paleobotany
Max. Marks : 60

Time : 3 Hours

Instruction : Draw neat labelled diagrams wherever necessary.

I. Explain / define any Five of the following. Each question carries Two marks.

1. Carinal canal
2. Circinate vernation
3. Solenostele
4. Transfusion tissue
5. Foliar spur
6. Heart wood
7. Trichomes

It is nothing but the Dwarf shoot found in pines & with scale leaves & bearing the needles at the tip.

I. Write notes on any Four of the following. Each question carries Five marks.

8. Heterospory and seed habit.
9. Sporophyte of ophioglossum.
10. Synangium of psilotum.
11. Gnetum Ovule.
12. Sporophyte of Cycas.
13. Economic importance of gymnosperms.



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III. Give a detailed account of any Five of the following. Each question carries Six marks.

14. Internal structure of Rhizome of Massilea
15. Strobilus of Selaginella
16. Male cone of Pinus
17. T.S. of Dicot stem
18. Parenchyma
19. Theories of Apical meristem
20. Rhynis



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Total No. of Pages

Sl. No. 0787

IV Semester B.Sc. Examination, May/June 2016
(Semester Scheme) (2015-16 Batch & onwards)

BOTANY (Paper IV)

Morphology of Angiosperms, Reproductive Biology and Ecology

Max. Marks :

Time : 3 Hours

Instruction : Draws labelled diagrams wherever necessary.

Q1) Explain/Define any five of the following

[5 × 2 =

- Phyllode
- Offset
- stipule
- Nucellus
- Helobial endosperm
- Soil profile
- Total parasite



Q2) Write notes on any four of the following

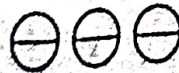
[4 × 5 =

- Any three adventitious root modifications
- Composite fruits
- NPC system
- Megasporogenesis
- Marine Ecosystem
- Endemic and Endangered plants

Q3) Give a detailed account of any five of the following

[5 ×

- Cymose inflorescences
- Polyembryony
- Contrivances of cross pollination
- Morphological and anatomical adaptations in Hydrophytes
- Process of succession
- Edaphic factors
- Coastal, scrubby and deciduous vegetation of Karnataka.



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Sl.No. 0686

Total No. of Pages : 2

V Semester B.Sc. Examination, Nov./Dec. - 2016

(Semester Scheme)
BOTANY (Paper - V)

Taxonomy of Angiosperms, Economic Botany and Ethnobotany

Max. Marks : 80

Time : 3 Hours

Instruction : Draw neat labelled diagrams wherever necessary.

1. Explain / Define any TEN of the following.

[10 × 2 = 20]

1. Taxon
2. Chemotaxonomy
3. BSI
4. Mysore Flora
5. Glume
6. Stylopodium
7. Jaculator
8. Pappus
9. Gynobasic style
10. Nicotine
11. Jasmine
12. Strychnos



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II. Write notes on any SIX of the following.

13. APG system of classification

14. ICBN principles

15. Fruits of Rosaceae

16. Beverages

17. Androecium in Rutaceae

18. Any two dyes

19. Flower of Musaceae

20. Corolla in Lamiaceae and Brassicaceae

III. Give a detailed account of any SIX of the following.

21. Herbarium techniques

22. Salient features of Cucurbitaceae

23. Floral characters of Asclepiadaceae

24. Compare papilionaceae and caesalpiniaceae

25. Distinguishing characters of Liliaceae

26. Salient features of Exphorbiaceae

27. Punarnava and Ashwagandha

28. Write botanical name and family of the following :

a) Vegetable Ivory

b) Ladies Finger

c) Fennel

d) Soapnut

e) Coffee

f) Subabul



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Cl No. 0705

Total No. of Pages : 2

V Semester B.Sc. Examination, Nov./Dec. - 2016

(Semester Scheme)

BOTANY (Paper - VI)

Cell Biology, Molecular Biology and Evolution

Time : 3 Hours

Max. Marks : 80

Instruction : Draw neat labelled diagrams wherever necessary.

1. Explain / Define any Ten of the following.

[10 × 2 = 20]

1. Nuclear lamina
2. Histone octamer
3. Chiasmata
4. Colchicine
5. Duplication
6. Shine-Dalgarno sequence
7. Z-DNA
8. Hargobind Khorana
9. Releasing factors
10. Operon
11. Kornberg enzyme
12. Geographical barriers



II. Write notes on any SIX of the following.

- 13. Golgi complex
- 14. Significance of Mitosis and Meiosis
- 15. t-RNA
- 16. Avery's experiment
- 17. Gene battery
- 18. Deciphering of Genetic code
- 19. Weismannism
- 20. Ribosomes

III. Give a comprehensive and detailed account of any SIX of the following [6 × 6 = 36]

- 21. Structure of cell wall
- 22. Transmission electron microscope
- 23. Cell cycle and its regulation
- 24. Translocations in chromosomes
- 25. Chemistry of DNA
- 26. Modern concept of gene
- 27. Translation
- 28. Chemical evolution of life



VI Semester BSc. Examination, May/June 2016
(Semester Scheme) (2015-2016 onwards)

BOTANY (Paper - VII)

Plant Physiology and Plant Propagation

Time : 3 Hours

Max. Marks : 80

Instruction : Draw neat labelled diagrams wherever necessary.

Explain/Define any ten of the following

[10 × 2 = 20]

- a) Plasmolysis
- b) Water potential
- c) Aeroponics
- d) Photosystems
- e) Acetyl COA
- f) Short day plants
- g) Bud grafting
- h) Nitrogenase
- i) Ammonification
- j) Cuttings
- k) Vernalization
- l) Tuber



Write notes on any six of the following

[6 × 4]

- a) Root pressure theory
- b) Bowling's hypothesis
- c) Cyclic photophosphorylation
- d) Electron transport system in Aerobic Respiration
- e) Growth curve
- f) Difference between guttation and transpiration
- g) Fermentation
- h) Nodulation

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- Q3) Give a detailed account on any six of the following
- Passive absorption of water
 - Role of Macronutrients
 - Calvin cycle
 - EMP pathway
 - Growth inhibitors
 - Methods of layering
 - Classification of enzymes
 - Any two tropic movement



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M-182

Total No. of Pages : 2

VI Semester B.Sc. Examination, May/June - 2016
(Semester Scheme) (2015 - 16 onwards)
BOTANY (Paper - VIII)

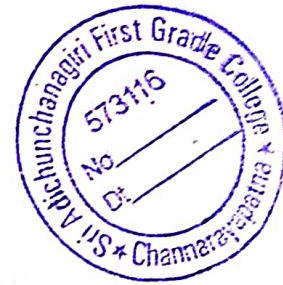
Genetics, Genetic Engineering, Plant Biotechnology and Plant Breeding
Time : 3 Hours
Max. Marks : 80

Instruction : Draw neat labelled diagrams wherever necessary.

Explain/Define any ten of the following :

[10 × 2 = 20]

- 1) Totipotency
- 2) Complementary genes
- 3) Quantitative inheritance
- 4) Plasmogones
- 5) Linkage map
- 6) Male sterile plant
- 7) Lethal mutation
- 8) Transposons
- 9) Three way cross
- 10) REN
- 11) T-DNA
- 12) Callus



Write note on any six of the following :

[6 ×

- 13) Hybrid vectors
- 14) Synthetic seeds
- 15) Functional genomics
- 16) Electroporation
- 17) Production of haploid plants by anther culture
- 18) Emasculation
- 19) Incomplete dominance
- 20) Transgenic plants in crop improvement

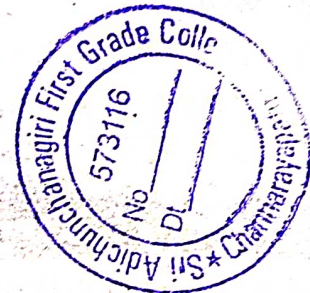
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III Give a comprehensive account of any six of the following.

[6 × 6 = 36]

- 21) Industrial production of penicillin
- 22) Supplementary gene interaction
- 23) Induced mutations and their applications
- 24) Mendel monohybrid cross
- 25) Epistasis in summer squashes
- 26) Various steps of Hybrid seed production
- 27) Construction of genomic library and its applications
- 28) Somatic hybridization



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No. 1014



M-222

Total No. of Pages : 2

III Semester B.Sc. Examination, Oct./Nov. - 2018
(Semester Scheme) (2015 onwards)

BOTANY - (Paper-III)

Pteridophyta, Gymnosperms, Anatomy & Palaeobotany

Max. Marks : 60

Time : 3 Hours

Instruction : Draw neat labelled diagrams wherever necessary

I. Explain/Define any five of the following :

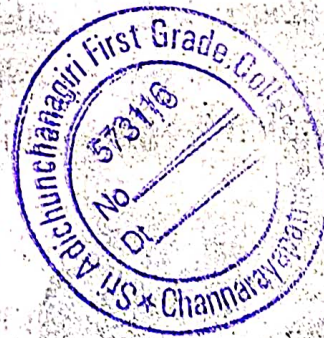
[5 × 2 = 10]

- 1) Spike
- 2) Heterospory
- 3) Ligule
- 4) Pavement tissue
- 5) Winged Pollen grain
- 6) Aerenchyma
- 7) Stomata

II. Write notes on any four of the following :

[4 × 5 = 20]

- 8) T.S. of aerial Stem of psilotum.
- 9) L.S. of Equisetum cone.
- 10) Collenchyma.
- 11) T.S. of Pinus needle
- 12) Laticiferous tissue
- 13) L.S. of cycas ovule



III. Give a detailed account of any five of the following.

- 14) Stebbin evolution in *Persea* sp.
- 15) Anatomy of *Salix* stem.
- 16) General Characters of *Gymnosperms*
- 17) Anatomy of young dicot stem.
- 18) Sporophyte of *Opuntia*
- 19) Male cone of *Pinus*
- 20) *Cycadeoidae*

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Sl.No. 0596

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Total No. of Pages : 2

V Semester B.Sc. Examination, Oct./Nov. - 2018
(Semester Scheme) (2015 on Wards)

BOTANY - (Paper-V)

**Taxonomy of Angiosperms, Economic Botany and
Ethnobotany**

Max. Marks : 80

Time : 3 Hours

Instruction : *Draw neat labelled diagrams wherever necessary*

I. Explain/Define any Ten of the following :

[10 × 2 = 20]

- 1) APG
- 2) Flora
- 3) Herbarium
- 4) Inter petiolar Stipule
- 5) Corymb
- 6) Tetrodynamous stamens
- 7) Gyno stegium
- 8) Resupination
- 9) Cremocarp.
- 10) Jaculator.
- 11) Pachouli
- 12) Lolesara.



II. Write notes on any Six of the following :

[6 × 4 = 24]

- 13) Numerical taxonomy
- 14) Tendrils of cucurbitaceae
- 15) Ray and Disc florets.

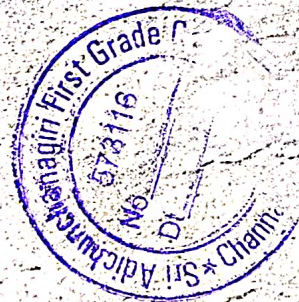
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- 16) Leaves of Liliaceae
- 17) Any two Insecticides.
- 18) Any four Economically important plants of Brassicaceae.
- 19) Fruits of Rutaceae
- 20) Important Characters of Acanthaceae.

III. Give a detailed account of any six of the following.

- 21) ICBN Principles and Aims.
- 22) Botanical Gardens.
- 23) Salient features of Rosaceae
- 24) Distinguishing Characters of Solanaceae
- 25) Diagnostic Characters of Poaceae
- 26) Alakayi and Nalanelli
- 27) General Characters of Apiaceae
- 28) Write botanical name and family of the following.
 - a) cotton
 - b) Castor
 - c) Indigo
 - d) Banana
 - e) Toddy palm.
 - f) Champaka.





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SL.No. 0599

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Total No. of Pages 12

V Semester B.Sc. Examination, Oct./Nov., 2018
(Semester Scheme) (2018 Onwards)
BOTANY (Paper - VI)
Cell Biology, Molecular Biology & Evolution
Time: 100

Time: 3 Hours

Instruction: Draw neat labelled diagrams wherever necessary. (10 x 2 = 20)

I. Explain/Deline any ten of the following:

- 1) Deletion
- 2) Karyotype
- 3) Exons
- 4) Isolation
- 5) Central dogma
- 6) Nucleoid
- 7) Purines
- 8) Hyper ploidy
- 9) Thalassemia
- 10) Rolling circle model
- 11) Suicide bags
- 12) Plasmogonist

[6 x 4 = 24]

II. Write notes on any six of the following:

- 13) Structure of chromosome
- 14) Allopolyploids
- 15) Weismannism
- 16) Fluid-Mosaic model
- 17) Properties of Genetic code
- 18) Avery et al's experiment
- 19) Anaphase & Telophase of Mitosis
- 20) Chemistry of DNA

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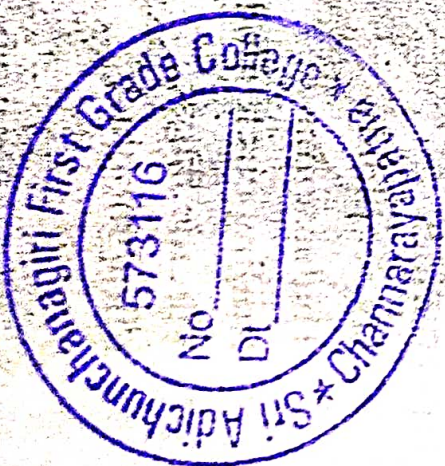
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III. Give a detailed account of any six of the following :

16 x 6 = 3 I.No.

- 21) Phase contrast Microscope.
- 22) Endoplasmic reticulum.
- 23) Neo Darwinism.
- 24) DNA replication in Eukaryotes.
- 25) One gene-one polypeptide concept
- 26) Prophase-I of Meiosis
- 27) Gene regulation in Eukaryotes
- 28) Protein synthesis.

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Sl.No. 0942

REGISTRATION M-218

Total No. of Pages : 3

I Semester B.Sc. Examination, Oct./Nov. - 2018

(Scheme : Semester-CBCS)

BOTANY -DSCB 1.1

Diversity of Microbes, Algae, Fungi, Plant,

Pathology and Bryophytes

Time : 3 Hours

Max. Marks : 80

Instruction : Draw neat labelled diagrams wherever necessary.

1. Multiple Choice Questions Choose the correct Answer. [12 x 1 = 12]

1) _____ are Aeroallergens

- a) Pollen grains
- b) Proteins
- c) DNA
- d) RNA

2) Organisms without any specific shape are _____.

- a) Cyanobacteria
- b) Bacteria
- c) Viruses
- d) Mycoplasma

3) Viroids are _____

- a) Infectious Nucleoproteins
- b) Infectious Nucleic acids
- c) Infectious Proteins
- d) Infectious Lipo proteins

4) Tetra Sporophyte is in _____

- a) Sargassum
- b) Oedogonium
- c) Polysiphonia
- d) Vaucheria

5) _____ is called SCG?

- a) Spirulina
- b) Diatoms
- c) Oedogonium
- d) Nostoc

Handwritten notes: 5749, 20/10/2018

6) Transformation in Bacteria was discovered by _____

- a) Lederberg
- b) Griffith
- c) Avery et al
- d) Tatum



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15) Sexual reproduction in Fungi.

OR

V.S. of Lichen Apothecium

16) Citrus canker

OR

Antheridiophore of Marchantia

[4 × 12 = 48]

III. Answer the following

17) Microbes of Air and Soil

OR

Structure and Reproduction in Tobacco Mosaic Virus.

18) Structure and Sexual reproduction in Vaucheria.

OR

General Characters and Economic importance of Cyanobacteria.

19) Structure and Sexual reproduction in Penicillium

OR

Nutrition and Economic importance of Fungi.

20) Gametophyte and Sporophyte of Funaria.

OR

Tikka disease of Ground nut and Late blight of Potato.



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Sl.No. 0735

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Total No. of Pages : 1

VI Semester B.Sc. Examination, April/May - 2018
(Semester Scheme) (2015-16 Onwards)

BOTANY (Paper - VII)

Plant Physiology and Plant Propagation

Max. Marks : 80

Time : 3 Hours

Instruction :- Draw neat labelled diagrams wherever necessary.

[10×2=20]

I. Explain / Define any TEN of the following :

- 1) Plasmolysis
- 2) Root Pressure
- 3) Ascent of Sap
- 4) Dormin
- 5) Grand period of Growth
- 6) Co-factor
- 7) Thylakoid
- 8) Rhizobium
- 9) Transamination
- 10) Tuber
- 11) Goopee
- 12) Nurseries



II. Write notes on any Six of the following :

[6×4=

- 13) Manganese and Boron
- 14) Phytochromes
- 15) Guttation
- 16) Ethylene

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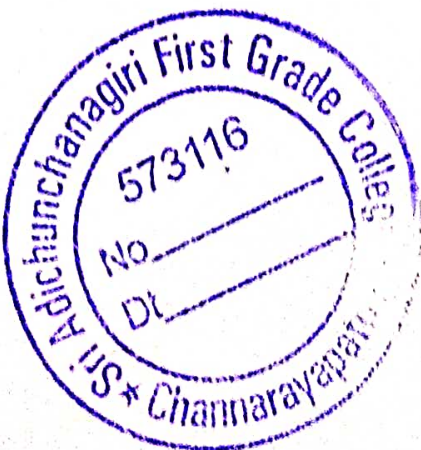
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- 17) Alcoholic fermentation
- 18) Oxidative de-carboxylation of Pyruvic acid
- 19) Cyclic Photo Phosphorylation
- 20) Nitrate Reduction

III. Give a detailed account on any Six of the following :

[6×6=36]

- 21) Hydroponics and Aeroponics
- 22) Starch-Sugar Interconversion
- 23) Phototropism and Thigmotropism
- 24) Auxins and their applications
- 25) Calvin Cycle
- 26) Terminal oxidation
- 27) Classification of Enzymes
- 28) Grafting



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Sl.No. 0049

Total No. of Pages : 2

I Semester B.Sc. Examination, Oct./Nov. - 2019
(Semester Scheme) (2015 Onwards) (Non CBCS)

BOTANY (Paper - I)

Microbial Diversity & Phycology

Time : 3 Hours

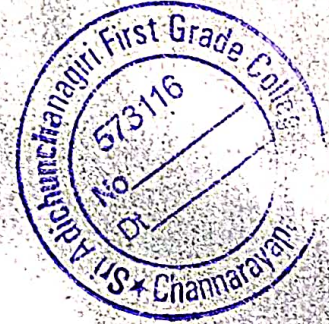
Max. Marks : 60

Instruction : Draw neat labelled diagrams wherever necessary.

I. Explain/Define any Five of the following :

[5 × 2 = 10]

- 1) Biological indicators
- 2) YMBV
- 3) Vibrio
- 4) Blepharoplast
- 5) Heterocyst
- 6) Autospore
- 7) Cell cap



II. Write notes on any Four of the following :

[4 × 5 = 20]

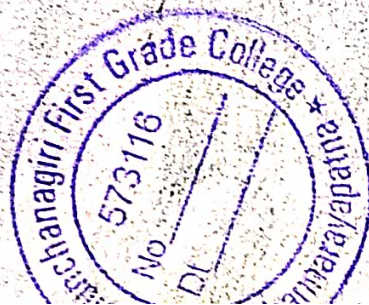
- 8) Structure & multiplication of TMV.
- 9) History, discovery & characteristics of Mycoplasma.
- 10) Structure & economic importance of Chlorella.
- 11) Conjugation in Bacteria.
- 12) Tetrasporophyte of Polysiphonia.
- 13) Female conceptacle in Sargassum.

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III. Answer any Five of the following :

- 14) Microbes of Soil.
- 15) Lysogenic cycle in Bacteriophage.
- 16) Economic importance of Bacteria.
- 17) Structure & reproduction in Nostoc.
- 18) Reproduction in Algae.
- 19) Macrandrous form of Oedogonium.
- 20) Autotrophic & Heterotrophic mode of Nutrition in Bacteria.

▽▽▽▽



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15

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M-8525

Total No. of Pages : 3

III Semester II B.Sc. Examination, Oct./Nov. - 2019

(Semester Scheme) (CBCS)

BOTANY - DSCB 1.3

Plant Ecology, Plant Anatomy and Plant Physiology

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all questions. Draw neat labelled diagrams wherever necessary.

I. Multiple choice questions.

[12 × 1 = 12]

1) Pyramid of energy is _____

a) Inverted

b) Upright

c) Horizontal

d) All the above

2) Phytoplanktons are _____

a) Decomposers

b) Producers

c) Consumers

d) None

3) Hydrophytes have well developed _____

a) Sclerenchyma

b) Xylem

c) Aerenchyma

d) Phloem

4) Periderm is _____

a) Phellogen

b) Phelloderm

c) Phellum

d) All these

5) Motor cells are seen in _____

a) Dicot leaf

b) Monocot leaf

c) Dicot stem

d) Monocot stem



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- 6) Stone cells are _____
 - a) Sclereids
 - b) Fibres
 - c) Collenchyma
 - d) Raphides
- 7) Plasmolysis is due to _____
 - a) Exosmosis
 - b) Endosmosis
 - c) Imbibition
 - d) Diffusion
- 8) Guttation takes place through _____
 - a) Hydathode
 - b) Stomata
 - c) Cuticle
 - d) Lenticel
- 9) Chilling effect on flowering is _____
 - a) Vernalization
 - b) Photoperiodism
 - c) Thigmotropism
 - d) Phototropism
- 10) Production of Alcohol is _____ Process.
 - a) Anaerobic
 - b) Aerobic
 - c) Anabolic
 - d) Amphibolic
- 11) C_2 cycle involves _____
 - a) Mitochondria
 - b) Chloroplast
 - c) Peroxisome
 - d) All of these
- 12) Glycolysis occurs in _____
 - a) Cytoplasm
 - b) Cristae
 - c) F_1 -Particle
 - d) Mitochondria



II. Answer the following:

13) Ecological adaptations in Epiphytes.

[4 × 5 = ;

Soil Profile. OR

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14) Anatomy of Dicot root.

OR

Xylem Elements.

15) TCT Theory.

OR

Munch hypothesis.

16) Non cyclic photophosphorylation.

OR

Amino acid Synthesis.

III. Answer the following :

17) Xerose and Hydrosere.

OR

Karnataka Vegetation.

18) Explain Secondary growth in dicot stem.

OR

Complex Permanent tissues.

19) Gibberellins and ABA.

OR

Photoperiodism and Sigmoid Curve:

20) Kreb's Cycle.

OR

Properties and Mode of Enzyme action.

▽▽▽▽



[4 × 12 = 48]

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Total No. of Pages : 3

I Semester B.Sc. Examination, Oct./Nov. - 2019
(Semester Scheme) (CBCS)

BOTANY

**Diversity of Microbes, Fungi, Plant Pathology and
Bryophytes**

Time : 3 Hours

Max. Marks : 80

Instruction : Draw neat labelled diagrams wherever necessary.

I. Multiple choice questions.

[12 × 1 = 12]

1) TMV has _____

a) DNA

b) RNA

c) Both a and b

d) Protein

2) Prions have _____

a) Capsid

b) Capsule

c) Proteins

d) Cellulose

3) Rhizobium is a microbe of _____

a) Soil

b) Water

c) Food

d) Air

4) Cyanobacterial pigment is _____

a) Fucoxanthin

b) Chlorophyll

c) Phycocyanin

d) Xanthophyll

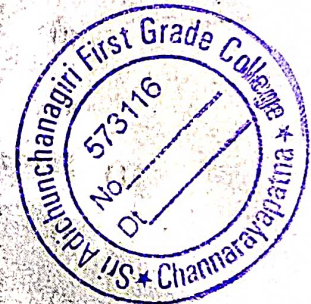
5) Bacterial conjugation is _____

a) Asexual reproduction

b) Sexual reproduction

c) Binary fission

d) Fragmentation



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- 6) Crypto blasts are seen in _____
a) Sargassum
b) Polysiphonia
c) Vaucheria
d) Oedogonium
- 7) _____ is known as 'bread mold'.
a) Penicillium
b) Rhizopus
c) Neurospora
d) Puccinia
- 8) Ascus contains _____
a) 6 Ascospores
b) 8 Ascospores
c) 3 Ascospores
d) 2 Ascospores
- 9) Fungal cell wall is made up of _____
a) Chitin
b) Cellulose
c) Lipid
d) Protein
- 10) Bordeaux mixture is _____
a) Insecticide
b) Herbicide
c) Weedicide
d) Fungicide
- 11) Downy mildew of Bajra is due to _____
a) Perenosclerospora
b) Nematode
c) Sclerospora graminicola
d) Bacteria
- 12) Marchantia is commonly known as _____
a) Moss
b) Liverwort
c) Hornwort
d) Ferns

II. Answer the following:

[4 x 5 =

13) General characteristics of Mycoplasma

OR

General characters of Viruses.

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14) Structure of Nostoc filament.

OR

Structure of Pennate Diatom.

15) Asexual reproduction in Penicillium.

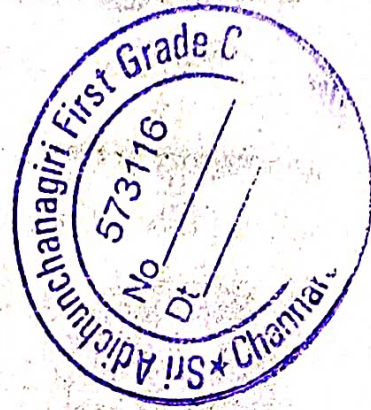
OR

Types of Lichens.

16) Sporo Phyte of Fun aria.

OR

Late blight of Potato.



III. Answer the following :

17) Microbes of water and Food.

[4 × 12 = 48]

OR

Structure and Lysogenic cycle of Bacteriophage.

18) Nutrition in Bacteria.

OR

Macrandrous and Nannandrous form of Oedogonium.

19) Nutrition and Sexual reproduction in Fungi.

OR

Life cycle of Puceinia.

20) Gametophyte and Sporophyte of Anthoceros.

OR

Sandal spike disease, Root knot of Mulberry and Tobacco mosaic disease.

▽▽▽▽

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Total No. of Pages : 3

III Semester B.Sc. Examination, March/April - 2021

(Semester Scheme : CBCS)

BOTANY (DSC)

Plant Ecology, Plant Anatomy and Plant Physiology

Time : 3 Hours

Instructions : 1) Answer All questions.

Max. Marks : 80

2) Draw neat labelled diagrams wherever necessary.

I. Multiple Choice Questions.

[12 × 1 = 12]

1. Green plants are
 - a) Producers
 - b) Consumers
 - c) Decomposers
 - d) None
2. Edaphic factor is
 - a) Man
 - b) Temperature
 - c) Soil
 - d) Animal
3. Mangrove plants are
 - a) Mesophytes
 - b) Halophytes
 - c) Xerophytes
 - d) Psammophytes
4. Storage tissue is
 - a) Parenchyma
 - b) Collenchyma
 - c) Fibre
 - d) Silereid
5. Vascular bundle in dicot stem is
 - a) Conjoint
 - b) Radial
 - c) Concentric
 - d) None of these



6. Dendrochronology refers to
- Annual rings
 - Heart wood
 - Sap wood
 - Cambial ring
7. Water potential components are
- Solute potential
 - Matrix potential
 - Pressure potential
 - All of these
8. Mass flow hypothesis was proposed by
- Dixon & Jolly
 - Munch
 - Krebs
 - Sir J.C. Bose
9. Natural Auxin is
- NAA
 - IAA
 - IBA
 - 2, 4-D
10. Assimilatory powers are
- ATP
 - NADPH₂
 - Both a) and b)
 - None
11. End product of Glycolysis is
- Pyruvic acid
 - DHAP
 - PGAL
 - Citric acid
12. NAD is
- Co-enzyme
 - Co-factor
 - Apo-enzyme
 - Holo enzyme

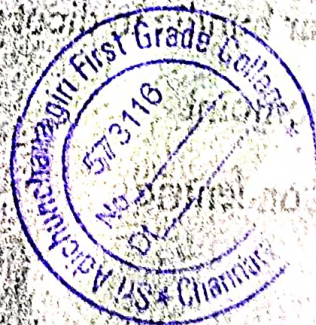
Answer the following.

[4 × 5 = 20]

13. Components of Ecosystem

OR

Food chains



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14. Anatomy of Monocot leaf
OR
Sclerenchyma tissue

15. Carrier concept
OR
Photoperiodism

16. Schematic representation of Glycolysis.
OR
Nitrate reduction.

III. Answer the following :

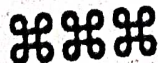
[4 × 12 = 48]

17. Ecological pyramids
OR
Ecological adoption in xerophytes.

18. General characters, classification and functions of meristems.
OR
Anatomy of Dicot & Monocot root.

19. Physiological applications of Auxins and Ethylene.
OR
Active and passive absorption of water.

20. Properties of Enzymes & lock & key mechanism of Enzyme action.
OR
C₃ Cycle.



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Total No. of Pages : 3

I Semester B.Sc. Examination, March/April - 2021
(Semester Scheme) (CBCS)

BOTANY (DSC)

Diversity of Microbes, Algae, Fungi Plant Pathology and
Bryophyte's

Time : 3 Hours

Max. Marks : 80

Instruction: Draw neat labelled diagrams wherever necessary.

I. Multiple choice questions.

[12 x 1 = 12]

1) Viroids have

- a) RNA
- b) DNA
- c) both RNA & DNA
- d) Chitin

2. Plasmids are

- a) Viruses
- b) Proteins
- c) Z - DNA
- d) Circular DNA

3. Bacterium with single flagellum is _____.

- a) Lopotrichous
- b) Monotrichous
- c) Amphitrichous
- d) Peritrichous

4. Fungal cell wall is made up of _____.

- a) Chitin
- b) Cellulose
- c) Lipids
- d) Proteins

5. The study of fungi is _____.

- a) Phycology
- b) Mycology
- c) Pathology
- d) Microbiology

6. Root knot of mulberry is caused by

- a) Nematodes
- b) Phytophthora
- c) Mycoplasma
- d) Bacteria





7. In Marchantia, spore dispersal is aided by _____
- Elaeagnus
 - Peristome
 - Indusium
 - Calyptra
8. Amphibians of plant kingdom are _____
- Algae
 - Fungi
 - Bryophytes
 - Gymnosperms
9. Pseudoelaters are found in _____
- Marchantia
 - Anthoceros
 - Fucus
 - Polysiphonia
10. Which of the following is a brown alga _____
- Spirulina
 - Vaucheria
 - Caulerpa
 - Sargassum
11. The 'father of Indian phycology' is _____
- Prof R.R. Mishra
 - Prof J. N. Mishra
 - Prof R.N. Singh
 - Prof MOP Iyenger
12. Algal partner in lichen is _____
- Phycobiont
 - Mycobiont
 - Phycomycobiont
 - Mycophycobiont

II. Answer the following

13. Living and nonliving characters of viruses.

OR

Structure of TMV.

14. Structure and economic importance of Spirulina.

OR

Nutrition in bacteria.

15. Asexual reproduction in Rhizopus

OR

Nutrition in fungi

16. Marchantia sporophyte

OR

Cirrus canker.

[4 × 12 = 48]

III. Answer the following.

17. Structure and lytic life cycle of bacteriophage.

OR

Microbes of soil and air

18. Ultrastructure and reproduction in bacteria.

OR

Sexual reproduction in sargassum

19. Economic importance of Fungi.

OR

a) Structure of Penicillium

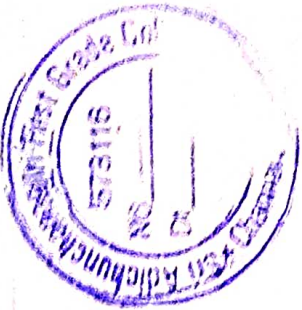
b) A brief note on Neurospora

20. Male and female flowers and sporophyte of funaria.

OR

Tikka disease of groundnut and phloem necrosis of coffee.

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14. Taxonomy in relation to phytochemistry.

OR

BSI and its functions.

15. Compare the family Magnoliaceae with Annonaceae.

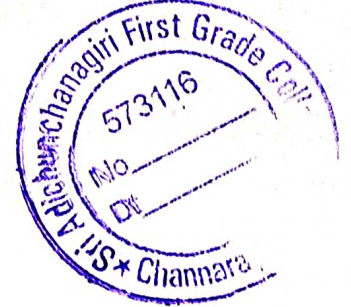
OR

Compare the family solanaceae with convolvulaceae.

16. Orchid Flower.

OR

Canna Flower.



II. Answer the following :

[4 × 12 = 48]

17. Cronquist system of classification with merits and demerits.

OR

Broad outline of Engle and Prantl's system of classification with merits and demerits.

18. Herbarium techniques.

OR

Important Botanical Gardens of India and World.

19. Distinguishing characters of the families Rosaceae and Apiaceae.

OR

Distinguishing characters of the families cucurbitaceae and Rubiaceae.

20. General characters of Acanthaceae and Nyctaginaceae.

OR

General characters of Moraceae and Scrophulariaceae.

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V Semester B.Sc. Examination, March/April - 2021

(Scheme : Semester (CBCS))

BOTANY SECB - 1.1

Medicinal and Ornamental Plants



Time : 2 Hours

Max. Marks :

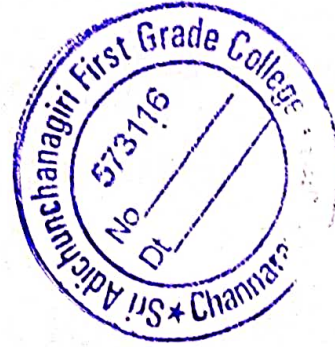
Instruction : Draw neat labelled diagrams wherever necessary.

I. Multiple Choice Questions.

[6 × 1 =

1. Catharanthus roseus is used to treat
 - a) Diarrhea
 - b) HIV
 - c) Cancer
 - d) COVID-19
2. Asparagus racemosus is commonly called as
 - a) Shatavari
 - b) Ashwagandha
 - c) Amla
 - d) Madhunashini
3. Pharmacology deals with the study of
 - a) Drugs
 - b) Food
 - c) Ornamental Plants
 - d) Crop Plants
4. Cycas is a ornamental plant belongs to
 - a) Angiosperm
 - b) Pteridophyta
 - c) Algae
 - d) Gymnosperms
5. Enclosed indoor garden is
 - a) Terrariums
 - b) Planetarium
 - c) Herbarium
 - d) None of these
6. An important cut flower is
 - a) Orchid
 - b) Jasmine
 - c) Hibiscus
 - d) Barlria

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[2 × 5

II. Answer the following.

7. Indigenous medicinal Sciences.

OR

Brief hote on *Tinospora cardifolia* and *Azadirachta indica*.

8. Cacti and Succulents.

OR

Packaging of cut flowers.

III. Answer the following :

[2 × 12

9. Classification of drugs based on the source.

OR

Part used and uses of any six medicinal plants.

10. Ornamental bulbous and foliage plants.

OR

Cultivation of any three cut-flowers.

