SM – 196

VI Semester B.Sc. Examination, May/June 2010
(Semester Scheme)
BOTANY – VII
Molecular Biology, Genetic Engineering, Biotechnology and
Plant Physiology – I (Plant Water Relations)

Time : 3 Hours   Max. Marks : 60

Instructions : 1) Answer **all** Parts.

2) Draw diagrams **wherever** necessary.

3) Write answers completely either in **English** or in **Kannada**.

A. ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಆರಕ್ಕೆ 2-3 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿ.   (6×2=12)

1) ಟರ್ಗರ್ ಒತ್ತಡ ಎಂದರೇನು ?

2) ಎಮ್–ಆರ್.ಎನ್.ಎ. ದ ಅಂದವಾದ ಲೇಬಲ್ ಮಾಡಿದ ಚಿತ್ರ ಗುರುತಿಸಿ.

3) ಹೈಡಥೋಡ್ ಎಂದರೇನು ?

4) ಸೈಕ್ಲಾಸಿಸ್ ವ್ಯಾಖ್ಯಾನಿಸಿ. ಅದರ ಉಪಯುಕ್ತತೆ ತಿಳಿಸಿ.

5) ಚುರುಕಾದ ನೀರು ಹೀರುವಿಕೆ ಎಂದರೇನು ?

6) ಬಾಷ್ಪವಿಸರ್ಜನೆ ಕಡಿತಗೊಳಿಸಲು ಶುಷ್ಕ ಸಸ್ಯಗಳಲ್ಲಿನ ಎರಡು ಹೊಂದಾಣಿಕೆ ಹೇಳಿ.

7) ಇಂಬಿಬಿಶನ್ ಎಂದರೇನು ?

8) ಆರ್.ಎನ್.ಎ ದಲ್ಲಿರುವ ನ್ಯೂಕ್ಲಿಯೋಟೈಡ್‌ಗಳನ್ನು ಹೆಸರಿಸಿ.

A. Answer any six of the following in **2** or **3** sentences.   (6×2=12)

1) What is turgor pressure ?

2) Draw a neat labelled diagram of m-RNA.

P.T.O.

3) What are hydathodes ?

4) Define cyclosis. Mention its significance.

5) What is active absorption of water ?

6) Mention two adaptations of xerophytes to reduce the rate of transpiration.

7) What is imbibition ?

8) Name the nucleotides present in RNA.

B. ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಆರನ್ನು ವರ್ಣಿಸಿ/ ವಿವರಿಸಿ.   (6×4=24)

9) ಎಸ್.ಸಿ.ಪಿ. ಯ ಉತ್ಪತ್ತಿ ಹಾಗೂ ಬಳಕೆ.

10) ಕೊಹೆಶನ್–ಟೆನ್ಷನ್ ಸಿದ್ಧಾಂತ.

11) ಪತ್ರರಂಧ್ರದ ರಚನೆ.

12) ಬೇರು ಒತ್ತಡ ಸಿದ್ಧಾಂತ.

13) ಲ್ಯಾಕ್–ಆಪೆರಾನ್ ಸಿದ್ಧಾಂತ.

14) ಜೈವಿಕ ತಂತ್ರಜ್ಞಾನದಲ್ಲಿಯ ಉಪಕರಣಗಳು ಹಾಗೂ ತಾಂತ್ರಿಕತೆ.

15) ಪೊಟ್ಯಾಸಿಯಂ ಐಯಾನ್‌ಗಳ ವಿನಿಮಯ ಸಿದ್ಧಾಂತ.

16) ವ್ಯವಸಾಯದಲ್ಲಿ ಜೈವಿಕ ತಂತ್ರಜ್ಞಾನದ ಬಳಕೆ.

B. Describe/explain any six of the following.   (6×4=24)

9) Production and utilization of SCP.

10) Cohesion-tension theory.

11) Structure of stomata.

12) Root pressure theory.

13) Lac-Operon concept.

14) Tools and techniques of Biotechnology.

15) Potassium ion exchange theory.

16) Applications of Biotechnology in Agriculture.

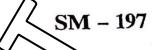C. ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಮೂರಕ್ಕೆ ಉತ್ತರಿಸಿ.   (3×8=24)

17) ಡಿ. ಎನ್.ಎ. ದ ರಚನೆ ವಿವರಿಸಿ.

18) ಬಾಷ್ಪವಿಸರ್ಜನೆಯ ಪ್ರಮಾಣ ಪ್ರಚೋದಿಸುವ ಅಂಶಗಳನ್ನು ವಿವರಿಸಿ ಅದರ ವಿಶೇಷತೆ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಸೇರಿಸಿ.

19) ಟ್ರೇಸ್ ಎಲೆಮೆಂಟ್ ಎಂದರೇನು ? ಸಸ್ಯದ ಬೆಳವಣಿಗೆ ಹಾಗೂ ಮೆಟಾಬಾಲಿಸಂನಲ್ಲಿ ಬೇಕಾದ ಮೂರರ ಪಾತ್ರ ವಿವರಿಸಿ.

20) ಟ್ರಾನ್ಸ್ಲೇಶನ್ ಪ್ರಕ್ರಿಯೆಯನ್ನು ವಿವರಿಸಿ.

21) ವಿವರಿಸಿ.
    a) ಮಾಸ್ ಫ್ಲೋ ಸಿದ್ಧಾಂತ.
    b) ಗಂಜಿ–ಸಕ್ಕರೆ ಸಿದ್ಧಾಂತ.

C. Answer **any three** of the following.   (3×8=24)

17) Describe the structure of DNA.

18) Describe the factors influencing the rate of transpiration. Add a note on its significance.

19) What are trace elements ? Describe the role of any three of them in plant growth and metabolism.

20) Describe the process of translation.

21) Describe :
    a) Mass flow hypothesis.
    b) Starch-sugar hypothesis.

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. Answer **any three** of the following : (3×8=24)

17) Give an account of vernalisation and mention its significance.

18) What are growth regulators ? Explain their role in agriculture and horticulture.

19) Explain the mechanism of carbon fixation in CAM plants.

20) What are amino acids ? Describe two methods of synthesis of amino acids.

21) Describe the important properties of enzymes.

AS – 228

VI Semester B.Sc. Examination, April/May 2012
(Semester Scheme)
BOTANY
Paper – VII : Molecular Biology, Genetic Engineering – Biotechnology
and Plant Physiology – I
(Plant Water Relations)

Time : 3 Hours   Max. Marks : 60

Instructions : 1) Answer **all** Parts.
2) **Draw** diagrams **wherever** necessary.

A. Answer **any six** of the following :   (6×2=12)

1) What is vector ? Give an example.

2) What is Imbibition ? Mention its significance.

3) Mention two applications of genetic engineering in agriculture.

4) What are terminator codons ? Mention any two of them.

5) What is plasmolysis ? Mention its significances.

6) Differentiate between nucleoside and nucleotide.

7) What is gene library ? Mention its significance.

8) What is vein loading and un-loading ?

B. Describe/Explain **any six** of the following :   (6×4=24)

9) Production of antibiotics.

10) Restriction enzymes.

11) Microbial production of ethanol

12) Guttation

13) Root pressure theory

14) Munch's mass flow hypothesis

15) Lac-operon concept

16) Mention the applications of genetic engineering in medicine.

P.T.O.

MS – 288

VI Semester B.Sc. Examination, May/June 2014
(NS) (Semester Scheme) (2013-14 and Onwards)
Paper – VII : BOTANY
Molecular Biology, Genetic Engineering, Biotechnology and
Plant Physiology – I

Time : 3 Hours

Max. Marks : 70

Instructions : 1) *Draw diagrams* **wherever** *necessary.*
2) *Answer* **all** *Parts.*

PART – A

A. Answer **any seven** of the following :   (7×2=14)

1) What is a vector ? Give an example.

2) Differentiate nucleoside and nucleotide.

3) Draw a neat labelled diagram of clove leaf model of RNA.

4) What are antitranspirants ? Give an example.

5) Mention the types of membranes based on permeability.

6) What are trace elements ? Give an example.

7) What is gene library ? Mention its significance.

8) Define guttation.

9) What are molecular probes ? Where are they used ?

PART – B

B. Describe/Explain **any six** of the following :   (6×4=24)

10) Differentiate between DNA and RNA.

11) Give the applications of genetic engineering technology.

12) Role of microbes in soil fertility.

P.T.O.

13) Properties of genetic code.

14) Electro-osmosis hypothesis.

15) Explain the structure of m-RNA.

16) Explain Munch hypothesis.

17) Structure of stomatal apparatus.

PART – C

C. Answer **any four** of the following :   (4×8=32)

18) Replications in DNA.

19) Explain the process of translation in protein biosynthesis.

20) Explain different steps of recombinant DNA technology.

21) Explain the role of N, K, Fe and Mg in plant growth and development.

22) Mechanism of absorption of water in plants.

23) Gene regulation in prokaryotes.

VI Semester B.Sc. Examination, May/June 2014
(Semester Scheme) (OS) (Prior to 2013-14)
Paper – VII : BOTANY
Molecular Biology, Genetic Engineering, Plant Biotechnology and Plant Physiology – I

Time : 3 Hours   Max. Marks : 60

Instructions : 1) Draw diagrams **wherever** necessary.
2) Answer **all** Parts.

PART – A

A. Answer **any six** of the following :   (6×2=12)

1) What is non-genetic RNA ?

2) Define Ion antagonism.

3) Mention two uses of genetic engineering in agriculture.

4) Differentiate between nucleotide and nucleoside.

5) What is incipient plasmolysis ?

6) Define stomatal index.

7) What is gene cloning ?

8) Define DPD. What is its significance ?

PART – B

B. Describe/Explain **any six** of the following :   (6×4=24)

9) Munch mass flow hypothesis.

10) Root pressure theory.

11) Mention the steps involved in ethanol production.

12) Plasmids.

13) Guttation.

14) Properties of genetic code.

15) Hydroponics.

16) Structure of DNA.

PART – C

C. Answer **any three** of the following :

(3×8=24)

17) Describe the stomatal apparatus and mechanism.

18) Explain the different stages in Recombinant DNA technology.

19) Give an account on eukaryotic gene expression.

20) Transpiration – pull theory.

21) Explain the role of nitrogen, phosphorous, zinc and boron in plant growth and development.

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SS – 364

V Semester B.Sc. Examination, November/December 2018
(CBCS) (2016 – 17 & Onwards) (F+R)
BOTANY (Paper – VI)
Molecular Biology, Genetic Engineering, Biotechnology and Plant Physiology

Time : 3 Hours

Max. Marks : 70

Instructions : 1) Answer all Parts.
2) Draw diagrams and write examples wherever necessary.

PART – A

A. Explain/Define **any ten** of the following in two or three sentences.   (10×2=20)

1) Define plasmid. What is its role in genetic engineering ?

2) What is gene regulation ?

3) Draw a neat labelled diagram of root hair.

4) Define water potential.

5) What is transpiration ? Mention any two types of transpiration.

6) Differentiate endosmosis and exosmosis.

7) What is water stress ?

8) Mention any two physical force theories of Ascent of sap.

9) What are terminator codons ? Name any one of them.

10) Draw a neat labelled diagram of Hydathode.

11) What are trace elements ? Give an example.

12) What is translocation of organic solutes ?

PART – B

B. Write critical notes on **any four** of the following.   (4×5=20)

13) Types of cell membranes and their permeability.

14) With a neat labelled diagram, explain the structure of mRNA.

15) Role of microbes in industry.

P.T.O.

SS – 364

16) Brief account on Bioinformatics.

17) Factors influencing the rate of transpiration.

18) Radial conduction of water in roots.

PART – C

C. Give a comprehensive account of **any three** of the following.   **(3×10=30)**

19) Explain active and passive mechanism of absorption of water in plants.

20) Describe the mechanism of semiconservative replication of DNA.

21) What is genetic code ? Explain the properties of genetic code.

22) Explain the mechanism of opening and closing of stomata.

23) Explain :
   a) Mass-flow hypothesis
   b) Any one vital theory of Ascent of sap.

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V Semester B.Sc. Examination, November/December 2017
(CBCS) (2016 – 17 & Onwards) (F+R)
BOTANY (Paper – VI)
Molecular Biology, Genetic Engineering, Biotechnology and Plant Physiology

Time : 3 Hours   Max. Marks : 70

Instructions : 1) Answer **all** questions.
2) Draw diagrams and write examples wherever necessary.

PART – A

A. Explain/Define **any ten** of the following in **two to three** sentences.   (10×2=20)

1) What is palindromic DNA ?

2) Define imbibition.

3) List any four functions of DNA.

4) What is active absorption ?

5) What is non-genetic RNA ?

6) Define osmosis. Give an example for semi-permeable membrane.

7) What is salt stress ?

8) What is a hydathode ? What is its significance ?

9) Mention any two differences between transpiration and evaporation.

10) What are restriction endonucleases ?

11) What is meant by source – sink concept ?

12) Mention any two minor elements in plant nutrition.

PART – B

B. Write critical notes on **any four** of the following :   (4×5=20)

13) Role of microbes in agriculture.

14) Plasmolysis and its significance.

15) Lac – operon.

16) Role of water in plants.

17) Antitranspirants.

18) B-DNA structure.

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SN – 372

PART – C

C. Give a comprehensive account of **any three** of the following: (3×10=30)

19) Explain the process of translation in protein synthesis.

20) Give an account of industrial production of penicillin.

21) What are macro elements ? Explain the deficiency symptoms of any four macro elements in plants.

22) Comment on physical force theories of ascent of sap with emphases on cohesion-tension theory.

23) Give an account of applications of genetic engineering in agriculture.

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V Semester B.Sc. Examination, December - 2019
(CBCS) (F+R) (2016-17 and Onwards)
BOTANY - VI
Molecular Biology, Genetic Engineering, Biotechnology and Plant Physiology

Time : 3 Hours   Max. Marks : 70

Instructions : (i)   Answer **all** Parts.
              (ii)   Draw diagrams and write examples wherever necessary.

PART - A

A. Explain/Define **any ten** of the following in **two or three sentences**.   10x2=20

1. Mention the differences between DNA and RNA.

2. What is nucleotide ?

3. What is permeability ? Mention their types.

4. Write uses of microbes in industry.

5. Name any two response of plants to water stress.

6. What is anti-transparent ? Give any two examples.

7. Draw a neat labelled diagram of t-RNA.

8. What is Topoisomer ? Give an example.

9. What is deplasmolysis ?

10. What is guttation ?

11. Define macro nutrients. Give an example.

12. What is protoplasmic streaming ?

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PART - B

B. Write critical notes on **any four** of the following :

4x5=20

13. Water potential.

14. Vein loading and unloading.

15. Components of Lac Operon.

16. Uses of Bio-Informatics.

17. Salt stress.

18. Deficiency symptoms and physiological importance of Nitrogen and Boron.

PART - C

C. Give a comprehensive account of **any three** of the following :

3x10=30

19. Production of Ethanol.

20. (a) Starch and Sugar hypothesis.
    (b) K^+ ion exchange theory.

21. Biosynthesis of Protein.

22. Dixon and Jolly's theory of Ascent of Sap.

23. Recombinant DNA technology.

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OS -- 216

V Semester B.Sc. Examination, October/November 2012
(Semester Scheme)
BOTANY – V
Taxonomy and Economic Botany

Time : 3 Hours   Max. Marks : 60

Instructions: 1) Answer all Parts.
2) Draw diagrams wherever necessary.

A. Answer **any six** of the following :   (6×2=12)

1) Differentiate between stem tuber and root tuber.

2) Define Ethnobotany.

3) Mention the Botanical name of any two timber yielding plants.

4) What are adnate stipules ? Give an example.

5) Define Phyllotaxy.

6) What is synandrous condition ? Give an example.

7) Mention any two families with epigynous flower you have studied.

8) What is caryopsis ? Give an example.

B. Describe/ explain any six of the following :   (6×4=24)

9) Computer application in systematic.

10) Cyathium

11) Morphological nature of Tendrils in Cucurbitaceae.

12) Importance of Botanical Gardens.

13) Salient features of Bentham and Hooker system of plant classification.

P.T.O.

SO – 227

V Semester B.Sc. Examination, October/November 2011
(Semester Scheme)
BOTANY (Paper – V)
Taxonomy and Economic Botany

Time : 3 Hours   Max. Marks : 60

Instructions : 1) Answer all Parts.
2) Draw diagrams wherever necessary.
3) Answer either in English or Kannada.

A. ಯಾವುದಾದರೂ ಆರಕ್ಕೆ ಉತ್ತರಿಸಿ:   (6×2=12)

1) ಹೊಮೊಗ್ಯಾಮಸ್ ಮತ್ತು ಹೆಟರೊಗ್ಯಾಮಸ್ ಹೆಡ್ ಗಳ ನಡುವಿನ ವ್ಯತ್ಯಾಸ

2) ಸ್ಟೆಮಿನಲ್ ಕೊರೊನ ಎಂದರೇನು ? ಉದಾಹರಣೆ ಕೊಡಿ.

3) ಇಂಟರ್ ಮತ್ತು ಇಂಟ್ರಾಪೀಟಿಯೋಲಾರ್ ಸ್ಟಿಪ್ಯೂಲ್ ನಡುವಿನ ವ್ಯತ್ಯಾಸ ಮತ್ತು ಉದಾಹರಣೆ ಕೊಡಿ.

4) ಫ್ಲೋರ ಎಂದರೇನು ? ಉದಾಹರಣೆ ಕೊಡಿ.

5) ರೆಗ್ಮ ಎಂದರೇನು ? ಉದಾಹರಣೆ ಕೊಡಿ.

6) ಕೋರಿಂಬ್ ಮತ್ತು ಅಂಬೆಲ್ಗಳ ವ್ಯತ್ಯಾಸ

7) ಕಾಗದದ ಪಲ್ಪಿನ ಎರಡು ಮೂಲಗಳನ್ನು ತಿಳಿಸಿ.

8) ಎಪಿಪೆಟಲಸ್ ಕಂಡೀಶನ್ ಎಂದರೇನು ? ಉದಾಹರಣೆ ಕೊಡಿ.

A. Answer any six of the following :   (6×2=12)

1) Differentiate between Homogamous and Heterogamous Head.

2) What is Staminal Corona ? Give an example.

3) Differentiate between Inter and Intrapetiolar stipules.

4) What is Flora ? Give an example.

5) What is Regma ? Give an example.

6) Differentiate between Corymb and Umbel.

7) Mention two sources of paper pulp.

8) What is Epipetalous condition ? Give an example.

P.T.O.

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B. ಯಾವುದಾದರೂ ಆರಕ್ಕೆ ವರ್ಣಿಸಿ/ವಿವರಿಸಿ :   (6×4=24)

9) ಕೀಮೊಟ್ಯಾಕ್ಸಾನಮಿ

10) ವರ್ಟಿಸಿಲಾಸ್ಟರ್

11) ಪೋಯೇಸಿ ಹೂವಿನ ಬಗ್ಗೆ ತಿಳಿಸಿ

12) ವಿಧವಾದ ಹೂದಳಗಳ ಸಿಮಿತ್ತ ಬಗ್ಗೆ ತಿಳಿಸಿ. ಉದಾಹರಣೆ ಕೊಡಿ.

13) ಕಾರ್ಲ್‌ಲಿಸ್ಸಿಯ ಕೊಡುಗೆಯನ್ನು ತಿಳಿಸಿ

14) ಬಟಾನಿಕಲ್ ಸರ್ವೇ ಆಫ್ ಇಂಡಿಯಾದ ಬಗ್ಗೆ ತಿಳಿಸಿ.

15) ಗುಚ್ಛ ಕಾಯಿಗಳ ಬಗ್ಗೆ ತಿಳಿಸಿ

16) ಕುರಬಿಟೇಸಿಯ ಪುಂಕೇಸರಗಳ ಬಗ್ಗೆ ತಿಳಿಸಿ.

B. Describe/Explain any six of the following :   (6×4=24)

9) Chemotaxonomy

10) Verticillaster

11) Flower and poaceae

12) Types of symmetry of flowers with example.

13) Contributions of Carolaes Linnaeus

14) Botanical Survey of India.

15) Aggregate fruits

16) Androecium of Cucurbitaceae.

C. ಕೆಳಗಿನ ಮೂರಕ್ಕೆ ಉತ್ತರಿಸಿ :   (8×3=24)

17) ಕ್ರಾಂಕ್ಟಿಸ್ಟ್ ವಿಧಾನದ ಸಸ್ಯ ವರ್ಗೀಕರಣದ ಪದ್ಧತಿಯ ಬಗ್ಗೆ ವಿವರಿಸಿ.

18) ಸ್ಕಾಪ್ಯುಲರೇಸಿ ಮತ್ತು ಲೇಮಿಯೇಸಿ ಕುಟುಂಬಗಳ ಪೋಲಿಕೆಗಳನ್ನು ತಿಳಿಸಿ. ಉದಾಹರಣೆ ಕೊಡಿ.

19) ಆರ್ಕಿಡೇ ಕುಟುಂಬದ ಮುಖ್ಯ ಗುಣಗಳನ್ನು ತಿಳಿಸಿ.

20) ಆಹಾರ ಧಾನ್ಯಗಳ ಮತ್ತು ಎಣ್ಣೆಯುತ್ತ ಮಾಡುವ ಸಸ್ಯಗಳ ಬಗ್ಗೆ ವಿವರಿಸಿ.

21) ಯುಫೋರ್‌ಬಿಯೇಸಿ ಕುಟುಂಬದ ಗುಣಗಳನ್ನು ತಿಳಿಸಿ.

C. Answer any three of the following :   (8×3=24)

17) Describe Cronquist system of classification.

18) Give a comparative account of family Scrophulariaceae and Lamiaceae with example.

19) Describe salient characters of family Orchidaceae.

20) Give an account of Cereals and oil yielding plants.

21) Describe the characters of family Euphorbiaceae.

OS -- 216

V Semester B.Sc. Examination, October/November 2012
(Semester Scheme)
BOTANY – V
Taxonomy and Economic Botany

Time : 3 Hours

Max. Marks : 60

Instructions: 1) Answer all Parts.
2) Draw diagrams wherever necessary.

A. Answer **any six** of the following :

(6×2=12)

1) Differentiate between stem tuber and root tuber.

2) Define Ethnobotany.

3) Mention the Botanical name of any two timber yielding plants.

4) What are adnate stipules ? Give an example.

5) Define Phyllotaxy.

6) What is synandrous condition ? Give an example.

7) Mention any two families with epigynous flower you have studied.

8) What is caryopsis ? Give an example.

B. Describe/ explain **any six** of the following :

(6×4=24)

9) Computer application in systematic.

10) Cyathium.

11) Morphological nature of Tendrils in Cucurbitaceae.

12) Importance of Botanical Gardens.

13) Salient features of Bentham and Hooker system of plant classification.

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14) Fruits of Rosaceae.

15) Storage organs of Brassicaceae.

16) The Botanical name, family, part used and uses of Jute and Cocoa.

C. Answer any three of the following :

(8×3=24)

17) Give a comparative account of the families Rubiaceae and Asteraceae.

18) Give an account of spices and medicinal plants with two examples each.

19) Give salient features of the families Annonaceae and Orchidaceae.

20) Write the characters of the family Apiaceae.

21) Explain the principles and aims of I.C.B.N.

SN – 252

V Semester B.Sc. Examination, Nov./Dec. 2013
(Semester Scheme) (N.S.)
(2013-14 and Onwards)
BOTANY (Paper – V)
Taxonomy and Economic Botany

Time : 3 Hours

Max. Marks : 70

Instructions : 1) Answer all Parts.

2) Draw diagrams wherever necessary.

PART – A

A. Answer **any seven** of the following.   (7×2=14)

1) Mention two functions of botanical gardens.

2) Mention two tendril modifications of stem with an example.

3) What is binomial nomenclature ? Who proposed it ?

4) What is Herbarium ? Mention any two techniques.

5) Mention any two salient features of the family commelinaceae.

6) What is gynosterninum ? Give an example.

7) What is syngenesious condition ? Give an example.

8) What is a compound umbel ?

9) What is syconus ? Give an example.

PART – B

3. Describe/Explain **any six** of the following.   (6×4=24)

10) Papilionaceous corolla.

11) Spadix.

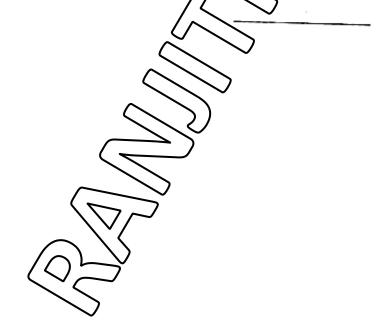12) Salient features, merits and demerits of Bentham and Hooker's system of classification.

P.T.O.

13) Any two kinds of Timber yielding plants.

14) Key characters of Mimosaceae.

15) Write the botanical name, family, part used and uses of Bajra and groundnut.

16) Musa flower.

17) Schizo carpic fruits.

PART – C

C. Answer **any four** of the following.   (8×4=32)

18) Give the comparative account of the family Cucurbitaceae and Brassilaceae.

19) Give an account of any two beverages and two oil yielding plants.

20) Give the salient features of the family Orchidaceae.

21) Give the comparative account of the family Annonaceae and Rutaceae.

22) Give a detailed account of floras and their importance.

23) Valid and effective publications.

V Semester B.Sc. Examination, November/December 2014
(Semester Scheme) (NS) (2013-14 & Onwards)
BOTANY (Paper – V)
Taxonomy and Economic Botany

Time : 3 Hours   Max. Marks : 70

Instructions : 1) Answer all Parts.
              2) Draw diagrams wherever necessary.

PART – A

A. Answer any seven of the following :   (7×2=14)

   1) What is Binomial nomenclature ? Give an example.

   2) What are Taxonomic Tools ?

   3) What is pod ? Give an example.

   4) What is axile placentation ? Give an example.

   5) Mention two salient features of the family Musaceae.

   6) What is artificial system of classification ?

   7) What is pappus ? Give an example.

   8) What is Resupination ? Give an example.

   9) What is Fusiform root ? Give an example.

PART – B

3. Describe/Explain any six of the following :   (6×4=24)

   10) Species concept.

   11) Key characters of Lamiaceae.

   12) Broad outline classification of Bentham and Hooker.

   13) Tendrils of cucurbitaceae.

P.T.O.

RANJITH KUMAR H T, ASST. PROFESSOR IN BOTANY, B.G.S SCIENCE ACADEMY, CHIKKABALLAPURA

SN – 262   -2-

14) Write the Botanical name, family, part used and uses of Bamboo and Eucalyptus.

15) Any two kinds of sugar and starch yielding plants.

16) Write a note on Capsule and its types.

17) Spikelet of Gramineae.

PART – C

C. Answer **any four** of the following :   (8×4=32)

18) Give the comparitable account of the family Euphorbiaceae/Moraceae.

19) Field and Herbarium techniques.

20) Give the salient features of the Family Rutaceae.

21) Give an account of cereals and millets with two examples each.

22) Salient features of International code of Botanical nomenclature.

23) Botanical Gardens and their importance.

-3-   SN – 262

V Semester B.Sc. Examination, November/December 2014
(Semester Scheme) (O.S.) (Prior to 2013-14)
BOTANY (Paper – V)
Taxonomy and Economic Botany

Time : 3 Hours   Max. Marks : 60

Instructions : 1) Answer all Parts.
              2) Draw diagrams wherever necessary.

PART – A

A. Answer **any six** of the following :   (6×2=12)

1) Mention any two rules of Priority.

2) Mention any two functions of Botanical gardens.

3) What is didynamous condition ? Give an example.

4) Mention any two timber-yielding plants.

5) Mention any four salient features of family Brassicaceae.

6) Differentiate between Bulb and Bulbil.

7) What is phylogenetic system of classification.

8) What is Regma ? Give an example.

PART – B

B. Describe/Explain any six of the following.   (6×4=24)

9) Binomial system of nomenclature.

10) Outline of Bentham and Hooker's system of classification.

11) Verticellaster.

12) Key characters of Acanthaceae.

13) Multiple fruits.

SN – 262   -4-

14) Botanical name, family, part used and uses of Sandalwood and pepper.

15) Flower of Musa.

16) Fruits of Rosaceae.

PART – C

C. Answer **any three** of the following :   (3×8=24)

17) Give a comparative account of families Verbanaceae and Lamiaceae.

18) Give salient features of family orchidaceae and add a note on its economic importance.

19) Give a detailed account of Herbarium methodology.

20) Give an account of any two medicinal and fibre yielding plants.

21) Flora and its importance.

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V Semester B.Sc. Examination, Nov./Dec. 2015
(NS) (2013-14 and Onwards)
BOTANY (Paper – V)
Taxonomy and Economic Botany

: 3 Hours   Max. Marks : 70

Instructions : 1) Answer all Parts.
2) Draw diagrams wherever necessary.

PART – A

Answer any seven of the following :   (7×2=14)

1) Mention any two Botanical Gardens at international level.

2) What is Berry ? Give an example.

3) What is herbarium ? Mention any two techniques.

4) What is Gynostemium ? Give an example.

5) What is Corymb ? Give an example.

6) What is tetradynamous condition ? Give an example.

7) What is Sorosis ? Give an example.

8) Differentiate parietal and axile placentation.

9) Give any two salient features of the family Caesalpinieae.

PART – B

Describe / Explain any six of the following :   (6×4=24)

10) Give any five plants of economic importance belonging to the family Gramineae.

11) Storage organs of Cruciferae.

12) Give an account of floras and their importance.

13) Any two kinds of spice yielding plants.

14) Key characters of Capparidaceae.

15) Write botanical name family part used and uses of lettuce and coffee.

16) Umbel

17) Head inflorescence.

PART – C

C. Answer **any four** of the following :   (8×4=32)

18) Give the comparative account of the family Magnoliaceae and Asclepiadaceae.

19) Give any two pulp and paper plants and two medicinal plants.

20) Give salient features of family Musaceae and add a note on its economic importance.

21) Give the comparative account of the family Papilionaceae and Lamiaceae.

22) Valid and effective publications.

23) Give an account of Botanical Gardens and their importance.

-3-

V Semester B.Sc. Examination, Nov./Dec. 2015
(Prior to 2013-2014) (OS)
BOTANY (Paper – V)
Taxonomy and Economic Botany

Time : 3 Hours

Max. Marks : 50

Instructions : 1) Answer all Parts.
2) Draw diagrams wherever necessary.

PART – A

A. Answer **any six** of the following :

(6×2=12)

1) Differentiate homogamous and heterogamous head.

2) What is staminal corona ? Give an example.

3) Mention two functions of Botanical Gardens.

4) Define species.

5) What is Didynamous condition ?

6) Mention two sources of commercial coir.

7) What is Cruciform Corolla ? Give an example.

8) What is Fleshy Drupe ? Give an example.

PART – B

B. Describe/Explain any **six** of the following :

(6×4=24)

9) Spike let.

10) Tendrils of Cucurbitaceae.

11) Key characters of compositae.

12) Importance of computer applications.

13) Broad outline of Cronquists' classification system.

14) Botanical name and family part used and uses of castor and ocimum.

15) Timber yielding plants.

16) Differentiate parietal and axile placentation.

UN – 559

-4-

PART – C

C. Answer **any three** of the following :

17) Give comparative account of Labiatae and Rutaceae.

18) Give an account of medicinal plants you have studied.

19) Give an account of Botanical Gardens and their importance.

20) Field and Herbarium techniques.

21) Salient features of family Euphorbiaceae.

NS – 325

V Semester B.Sc. Examination, Nov./Dec. 2016
(CBCS) (2016-17 and Onwards) (Freshers)
BOTANY (Paper – V)
Taxonomy and Economic Botany

Time : 3 Hours   Max. Marks : 70

Instructions : 1) Answer **all** Parts.
2) **Draw** diagrams **wherever** necessary.

PART – A

A. Explain/Define **any ten** of the following in **two or three** sentences :   (10×2=20)

1) What is Herbarium ?

2) What is paratype ?

3) What is natural system of classification ?

4) What is binomial nomenclature ? Who proposed it ?

5) Define compound umbel. Give an example.

6) What is tetradynamous condition ? Give an example.

7) What is labellum ? Give an example.

8) Differentiate legume with follicle.

9) Mention the botanical names of two aromatic plants.

10) What is parietal placentation ? Give an example.

11) What is syngenesious condition ? Give an example.

12) Differentiate between heterogamous and homogamous "Head".

PART – B

B. Write critical notes on **any four** of the following :   (4×5=20)

13) Salient features of Engler and Prantl system of classification.

14) Key characters of Family-Rubiaceae.

15) Botanical name, family, part used and uses of sesamum and asafoetida.

16) Ethnobotany.

17) Orchid flower.

18) Computer application in systematics.

P.T.O.

PART – C

C. Give a comprehensive account on **any three** of the following: (3×10=30)

19) Aim and principles of ICBN.

20) Give a comparative account of the families Acanthaceae and Lamiaceae.

21) Salient features of the family-Arecaceae.

22) Give an account of any five spice yielding plants.

23) Write the characters of the family-Rosaceae and add a note on any two economically important plants.

SN – 370

V Semester B.Sc. Examination, November/December 2017
(CBCS) (2016-17 and Onwards) (F+R)
BOTANY (Paper – V)
Taxonomy and Economic Botany

Time : 3 Hours

Max. Marks : 70

Instructions : 1) Answer **all** questions.
2) Draw diagrams **wherever** necessary.

PART – A

A. Explain/Define **any ten** of the following in two or three sentences :   (10×2=20)

1) What is caryopsis ? Give an example.

2) What is Holotype ?

3) What is Ethnobotany ?

4) Define species.

5) What is Didynamous condition ? Give an example.

6) Write the Botanical names of Teak and Rosewood.

7) What is Resupination ? Give an example.

8) What are OTUs ?

9) What is Papilionaceous corolla ?

10) Differentiate Ray floret from Disc floret.

11) What is Phylogenetic system of classification ? Give an example.

12) Give any two diagnostic features of the family Apiaceae.

PART – B

B. Write critical notes on **any four** of the following :   (4×5=20)

13) Cyathium inflorescence.

14) Chemotaxonomy.

15) Tendrils of the family Cucurbitaceae.

16) Salient features of Bentham and Hooker's classification.

17) Floral characteristics of Musa sp.

18) Key characters of family Rutaceae.

P.T.O.

SS – 363

V Semester B.Sc. Examination, November/December 2018
(CBCS) (2016-17 and Onwards) (F + R)
BOTANY (Paper – V)
Taxonomy and Economic Botany

Time : 3 Hours   Max. Marks : 70

Instructions :   1) Answer **all** Parts.
                    2) Draw diagrams wherever **necessary**.

PART – A

A. Explain/define **any ten** of the following in **two or three** sentences.   (10×2=20)

   1) What is biosystematics ?

   2) What is cytotaxonomy ?

   3) What is Herbarium ? Mention any two techniques.

   4) Define pseudostem with an example.

   5) What are epiphytic roots ? Give an example.

   6) What are petalloid stamens ? Give an example.

   7) What is obdiplostemonous condition ? Give an example.

   8) What is synandrous condition ? Give an example.

   9) Define pappus with an example.

   10) What are interpetiolar stipules ? Give an example.

   11) Give the economic importance of cinnamon and state the part used.

   12) Write the botanical name of ground nut and coconut.

PART – B

B. Write critical notes on **any four** of the following.   (4×5=20)

   13) Floras and their importance.

   14) Numerical taxonomy.

   15) Salient features of arecaceae.

   16) Cremocarp and regma.

   17) Tetradynamous stamens.

   18) Gynostegium and pollinia.

P.T.O

SS – 363

PART – C

C. Give a comprehensive account on **any three** of the following.   (3×10=30)

19) Bentham and Hooker system of classification.

20) Give an account of any two botanical gardens.

21) Give a comparative account of the families acanthaceae and lamiaceae.

22) Give an account of edible oils and any two beverages.

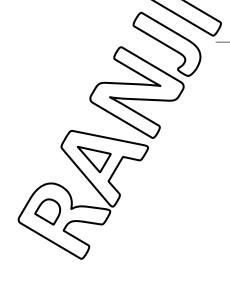23) Enumerate the general characters of the family Magnoliaceae.

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SN – 370

PART – C

C. Give a comprehensive account on any three of the following :   (3×10=30)

19) Describe the family Asclepiadaceae.

20) Define Herbarium. Give an account of the Field and Herbarium techniques.

21) Give a comparative account of the families Annonaceae and Magnoliaceae.

22) What is Binomial Nomenclature ? Write a note on the aim and principles of ICBN.

23) Give a note on any five medicinal plants.

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No. of Printed Pages : **2**

GN-244

V Semester B.Sc. Examination, December - 2019
(CBCS) (F+R) (2016-17 and Onwards)
BOTANY - V
Taxonomy and Economic Botany

Time : 3 Hours

Max. Marks : 70

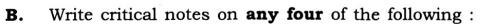**Instructions :** (i) Answer **all** Parts.
(ii) Draw diagrams wherever **necessary**.

PART - A

A. Explain/Define **any ten** of the following in **two** or **three** sentences.   **10x2=20**

1. What are Staminodes ? Give example.

2. Define Monochasial cyme.

3. What is Effective and Valid Publication ?

4. Define Isotype.

5. What is Binomial Nomenclature ?

6. Mention any two salient features of family Lamiaceae.

7. What is capsule ? Give an example.

8. Distinguish between actinomorphic and zygomorphic flower.

9. Define Synandrous condition. Give example.

10. Mention two sources of Paper and Pulp.

11. Define tendril. Give example.

12. Name any two medicinal uses of Periwinkle.

P.T.O.

PART - B

B. Write critical notes on **any four** of the following : 4x5=20

13. Describe the nature of inflorescence in Arecaceae.

14. Write the important distinguishing features of any two of the following and refer to their families :

    (i)   Resupination

    (ii) Stylopodium

    (iii) Tetradynamous-stamens

15. Give the Botanical name, family, part used and uses of sugarcane and coir.

16. Chemotaxonomy.

17. Key characters of Asclepiadaceae.

18. Species Concept.

PART - C

C. Give a comprehensive account of **any three** of the following : 3x10=30

19. Give a comparative account of families Rutaceae and Rosaceae.

20. Write the salient features of the family Musaceae.

21. Give a note on any two beverages and timber yielding plants.

22. Describe Field and Herbarium techniques.

23. Point out the salient features of Bentham and Hooker's system of classification. Mention its merits and demerits.

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