

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY

B.Sc II -SEMESTER FIRST INTERNAL ASSESMENT TEST JULY-2024

PAPER TITLE (DSC): DIVERSITY OF NON FLOWERING PLANTS

TIME: 1hr

PAPER CODE: 21BSC2BOT2L

MAX.MARKS: 30

DATE: 11/07/2024

Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.

Q.I. Answer any FIVE of the following in 2 or 3 sentences.

5x2=10

- | | |
|---------------------------|--------------------|
| 1. Liverworts | 2. Sporophyte |
| 3. Smooth Walled Rhizoids | 4. Columella |
| 5. Gemma Cup | 6. Megasporeophyll |
| 7. Corolloid Roots | 8. Female Cone |

Q.II. Answer any THREE of the following questions.

3x4=12

9. Give general characteristics of Pteridophytes.
10. Give Classification of Pteridophytes.
11. Give general characteristics of Gymnosperms.
12. Write brief account of heterospory and seed habit
13. Describe Stelar evolution in Pteridophytes.

Q.III. Answer any TWO of following questions

2x4=8

14. Give general characteristics of Bryophytes.
15. Describe anatomy of *Riccia* thallus.
16. Explain sporophyte of Anthoceros
17. Explain Life Cycle of Funaria.

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc 4TH -SEMESTER FIRST INTERNAL ASSESMENT TEST JULY-2024****PAPER TITLE (DSC): ECOLOGY AND CONSERVATION BIOLOGY****DURATION: 1hr****PAPER CODE: 21BSC2BOT4L****MAX.MARKS: 30****DATE: 09/07/2024****Instructions:** All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.1. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

- | | |
|------------------------|---------------------|
| 1. Habitat | 2. Capillary water |
| 3. Halophytes | 4. Botanical Garden |
| 5. Endangered species. | 6. Scared grooves |
| 7. National parks | 8. Seed Bank |

Q.2. Answer any THREE of the following questions.**3x4=12**

9. Explain ecological levels of organization.
10. Write about the importance of light on plant.
11. Explain temperature as an ecological factor.
12. Explain soil profile.
13. Write the morphological adaptations of hydrophytes.

Q.3. Answer any TWO of following questions**2x4=8**

14. What is biodiversity? Add a note of types of biodiversity.
15. Write about the economic and asthetic values of biodiversity.
16. What are biodiversity hot spots? Write a note on biodiversity hot spots of india.
17. Explain the methods of forest conservation.

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY
B.Sc VI -SEMESTER FIRST INTERNAL ASSESMENT TEST JULY-2024
PAPER TITLE (DSC-1): CELL BIOLOGY

TIME: 1hr

PAPER CODE: DSC-21BSC6BOT 6L1

MAX.MARKS: 30

DATE: 10/07/2024

Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.

Q.I. Answer any FIVE of the following in 2 or 3 sentences.

5x2=10

- | | |
|-------------------|--------------------|
| 1. Nucleoid | 2. Plasma membrane |
| 3. ATPase | 4. Marker enzymes |
| 5. Phagocytosis | 6. Proton pump |
| 7. Nuclear lamina | 8. Nucleolus |

Q.II. Answer any THREE of the following questions.

3x4=12

9. Explain the active transport through cell membrane.
10. Describe the Biogenesis of mitochondria.
11. Write a note on Exocytosis
12. Explain the semiautonomous nature of mitochondria
13. Briefly explain passive transport through cell membrane

Q.III. Answer any TWO of following questions

2x4=8

14. Describe the structure of Chloroplast
15. Explain the fluid mosaic model of plasma membrane
16. Write a note on structure of Nucleus
17. Explain the structure of nuclear pore complex

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc VI -SEMESTER FIRST INTERNAL ASSESMENT TEST JULY-2024****PAPER TITLE (DSC PAPER-2): PLANT PHYSIOLOGY AND PLANT BIOCHEMISTRY****TIME: 1hr****PAPER CODE: 21BSC6BOT 6L2****MAX.MARKS: 30****DATE: 13/07/2024****Instructions:** All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.I. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

- | | |
|------------------|-----------------------|
| 1. Imbibition | 2. Turgor Pressure |
| 3. Wall Pressure | 4. Osmotic Potential. |
| 5. Cytokinins | 6. Biological clocks |
| 7. Phytochromes | 8. Senescence |

Q.II. Answer any THREE of the following questions.**3x4=12**

9. Explain the mechanism of water absorption.
10. What is transpiration ? Mention its types.
11. Write a note on any two micronutrients and any two macronutrients.
12. Describe the mass flow hypothesis.
13. Explain the physical force theory of Ascent of sap.

Q.III. Answer any TWO of following questions**2x4=8**

14. Write a short notes on Gibberellins
15. Write a short notes on Auxins
16. Write a short notes on Photoperiodism
17. Write a short notes on Ethylene

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY

B.Sc II -SEMESTER SECOND INTERNAL ASSESMENT TEST AUGUST -2024

PAPER TITLE (DSC): DIVERSITY OF NON FLOWERING PLANTS

TIME: 1hr

PAPER CODE: 21BSC2BOT2L

MAX.MARKS: 30

DATE: 11/07/2024

Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.

Q.I. Answer any FIVE of the following in 2 or 3 sentences.

5x2=10

1. Horse tail
2. Synangium
3. Gymnosperm
4. Trobaculae
5. Siphonostele
6. Meghasporophyll
7. Diatoms
8. pteridophyte

Q.II. Answer any THREE of the following questions.

3x4=12

9. Explain morphology of Nostoc .
10. Explain T.S of selaginella stem.
11. Describe T.S of psilotum stem .
12. Explain T.S of Equisetum internode
13. With neat diagram explain T.S of equisetum root.

Q.III. Answer any TWO of following questions

2x4=8

14. Give classification of gymnosperm
15. Describe T.S of cycas leaflet.
16. Give economic importance of gymnosperm.
17. Give classification of algae.

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DEPARTMENT OF BOTANY

B.Sc 4TH -SEMESTER SECOND INTERNAL ASSESMENT TEST AUGUST-2024

PAPER TITLE (DSC): ECOLOGY AND CONSERVATION BIOLOGY

DURATION: 1hr

MAX.MARKS: 30

PAPER CODE: 21BSC2BOT4L

DATE: 06/08/2024

Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.I. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

- | | |
|---------------|--------------------------|
| 1. Consumers | 2. Ecological Pyramids |
| 3. Food Chain | 4. Ecological Succession |
| 5. Acid rain. | 6. Minimata disease. |
| 7. Biomass | 8. Ecological hot spots. |

Q.II. Answer any THREE of the following questions.**3x4=12**

9. Explain the structural view of ecosystem.
10. What are biogeochemical cycles? Explain N2 cycle.
11. What is succession? Explain hydrosere.
12. Explain ecological pyramid with reference to grass land ecosystem.
13. Write about the abiotic factors of ecosystem.

Q.III. Answer any TWO of following questions**2x4=8**

14. What are the control measures for water pollution.
15. Explain the causes and control measure of air pollution.
16. What are the causes of soil pollution.
17. Write about the solid waste management.

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY

B.Sc 4TH -SEMESTER SECOND INTERNAL ASSESMENT TEST AUGUST-2024

PAPER TITLE (DSC): ECOLOGY AND CONSERVATION BIOLOGY

DURATION: 1hr

MAX.MARKS: 30

PAPER CODE: 21BSC2BOT4L

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DEPARTMENT OF BOTANY

B.Sc VI -SEMESTER ~~Second~~ INTERNAL ASSESMENT TEST AUGUST-2024

PAPER TITLE (DSC-1): CELL BIOLOGY

TIME: 1hr

PAPER CODE: DSC-21BSC6BOT 6L1

MAX.MARKS: 30

DATE: 06/08/2024

Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.I. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

- | | |
|----------------------|------------------------|
| 1. Chromosomal puffs | 2. Polytene chromosome |
| 3. Centromere | 4. Kinetochore |
| 5. CDKs | 6. ER |
| 7. Golgi Apparatus | |

Q.II. Answer any THREE of the following questions.**3x4=12**

8. Explain the structure of chromosomes.
9. Explain Lampbrush chromosome.
10. Explain the Checkpoints in cell cycle.
11. Describe Mitosis cell division.
12. Explain the cell-cell interaction.

Q.III. Answer any TWO of following questions**2x4=8**

13. Explain structure and functions of SER and RER.
14. Describe protein folding process in Endoplasmic Reticulum.
15. Enumerate protein Glycosylation in Golgi Complex.
16. Explain structure and functions of Lysosome.

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- | | |
|----------------|--------------------|
| 1. Phototropin | 2. Enzymes |
| 3. Amino Acids | 4. Proteins |
| 5. Vitamins | 6. Reaction Centre |
| 7. Xanthophyll | 8. CAM |

Q.II. Answer any THREE of the following questions.**3x4=12**

9. Explain the photosystem-1.
10. Explain C-3 pathway.
11. Explain the C-4 cycle.
12. Write a short notes on Photorespiration.

Q.III. Answer any TWO of following questions**2x4=8**

13. Name the fat soluble vitamins and their importance to the body.
14. Describe the mechanism of enzyme action.
15. What are proteins ? classify them.
16. Explain the structure of phytochromes.

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc VI -SEMESTER SECOND INTERNAL ASSESMENT TEST AUGUST-2024****PAPER TITLE (DSC PAPER-2): PLANT PHYSIOLOGY AND PLANT BIOCHEMISTRY****TIME: 1hr****PAPER CODE: 21BSC6BOT 6L2****MAX.MARKS: 30****DATE: 12/08/2024****Instructions:** All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.I. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY

B.Sc 1ST -SEMESTER FIRST INTERNAL ASSESMENT TEST JAN-2024

PAPER TITLE (DSC): MICROBIAL DIVERSITY AND TECHNOLOGY

TIME: 1hr

PAPER CODE: 21BSC1BOT1L

MAX.MARKS: 30

DATE: 03/01/2024

Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.

Q.1. Answer any FIVE of the following in 2 or 3 sentences.

5x2=10

1. Rhizobium
2. Mycelium
3. Significance of microorganisms
4. bacteriorodospin
5. Axenic culture
6. Lyophilisation
7. MTCC
8. ICTV

Q.2. Answer any THREE of the following questions.

3x4=12

1. Explain the nodule formation in leguminous plant.
2. Write a note on mycoplasma.
3. Explain the ultrastructure of bacteria.
4. Explain the classification of bacteria.
5. Write difference between eubacteria and archebacteria

Q.3. Answer any TWO of following questions

2x4=8

1. What are the uses of different types of microbial culture methods.
2. Write a brief account on ITCC
3. Write general characters of Virus
4. Explain structure of TMV

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY

B.Sc 1ST -SEMESTER FIRST INTERNAL ASSESMENT TEST JAN-2024

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- | | |
|--------------------|-----------------------|
| 1.Endosperm | 2. Anemophily |
| 3.PEN | 4.Apomixis |
| 5.Simple tissue | 6.Cambium |
| 7.vascular bundles | 8. Anular collenchyma |

Q.2. Answer any THREE of the following questions.**3x4=12**

1. What is fertilization? describe the process of double fertilization .
2. Give an account dead mechanical tissue
3. Give an account on types of ovule
4. Describe the t.s.of young anther
5. Explain the characterstic features of meristems

Q.3. Answer any TWO of following questions**2x4=8**

1. Describe the development of dicot embryo
2. Explain structure and function of xylem complex tissue
3. Describe epidermal tissue system
4. Describe the megasporogenesis in angiosperms

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc 3rd -SEMESTER FIRST INTERNAL ASSESMENT TEST JAN-2024****PAPER TITLE (DSC): PLANT ANATOMY AND DEVELOPMENT BIOLOGY****TIME: 1hr****MAX.MARKS: 30****PAPER CODE: 21BSC2BOT3L****DATE: 04/01/2024****Instructions:** All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.1. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

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DEPARTMENT OF BOTANY

B.Sc 3-SEMESTER FIRST INTERNAL ASSESMENT TEST JANUARY-2024

PAPER TITLE (OEC): BOTANICAL GARDEN AND LANDSCAPING

TIME: 1hr

PAPER CODE: 003BOT051

MAX.MARKS: 30

DATE: 06/01/2024

Instructions: All the sections are compulsory

Q.1. Answer the following questions

5x2=10

1. Formal garden
2. Ornamental hedges
3. Accent
4. Shrubbery
5. Bioaesthetic
6. Western style flower arrangement
7. Flower arrangement

Q.2. Answer any THREE of the following questions.

3x4=12

1. Write note on components of garden.
2. Define Bioaesthetic planning? How it helps for beautifying railway stations
3. Explain the importance of flower arrangement
4. Give a brief account what are the needs or benefits of bioaesthetic planning
5. Give a brief account flower production detail

Q.3. Answer any TWO of following questions

2x4=8

1. Explain the principles of gardening.
2. Give a brief account on post harvest practice of flower arrangement
3. Write a note on landscaping of school garden and recommendation

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY

B.Sc 3-SEMESTER FIRST INTERNAL ASSESMENT TEST JANUARY-2024

PAPER TITLE (OEC): BOTANICAL GARDEN AND LANDSCAPING

TIME: 1hr

PAPER CODE: 003BOT051

MAX.MARKS: 30

DATE: 06/01/2024

Instructions: All the sections are compulsory

Q.1. Answer the following questions

5x2=10

1. Formal garden
2. Ornamental hedges
3. Accent
4. Shrubbery
5. Bioaesthetic
6. Western style flower arrangement
7. Flower arrangement

Q.2. Answer any THREE of the following questions.

3x4=12

1. Write note on components of garden.
2. Define Bioaesthetic planning? How it helps for beautifying railway stations
3. Explain the importance of flower arrangement
4. Give a brief account what are the needs or benefits of bioaesthetic planning
5. Give a brief account flower production detail

Q.3. Answer any TWO of following questions

2x4=8

1. Explain the principles of gardening.
2. Give a brief account on post harvest practice of flower arrangement
3. Write a note on landscaping of school garden and recommendation

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc 5TH -SEMESTER FIRST INTERNAL ASSESMENT TEST JAN-2024****PAPER TITLE (DSC-2): GENETICS AND PLANT BREEDING****TIME: 1hr****PAPER CODE: 21BSC5BOT5L2****MAX.MARKS: 30****DATE: 06/01/2024****Instructions:** All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.I. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

- | | |
|----------------------|--------------------|
| 1. Phenotype | 2. Test cross |
| 3. Pedigree analysis | 4. Lethal alleles |
| 5. Hybridization | 6. Acclimatization |
| 7. RAPD | 8. Orthodox seeds |

Q.II. Answer any THREE of the following questions.**3x4=12**

1. What is incomplete dominance? Explain with an example.
2. Define epistasis. Explain recessive epistasis with example.
3. Write a note on Penetrance and Expressivity.
4. What are polygenic inheritance? Explain with an example.
5. Explain extrachromosomal inheritance in Four o' clock plant.

Q.III. Answer any TWO of following questions**2x4=8**

1. Write the objectives of plant breeding.
2. Write a note on apomixis type of reproduction.
3. Explain the conventional method of crop improvement.
4. Explain the vavilov's centres of origin.

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc 5TH -SEMESTER FIRST INTERNAL ASSESMENT TEST JAN-2024****PAPER TITLE (DSC-2): GENETICS AND PLANT BREEDING****TIME: 1hr****PAPER CODE: 21BSC5BOT5L2****MAX.MARKS: 30****DATE: 06/01/2024****Instructions:** All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.I. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc V -SEMESTER FIRST INTERNAL ASSESMENT TEST JAN-2024****PAPER TITLE (DSC-1): PLANT MORPHOLOGY AND TAXONOMY****TIME: 1hr****MAX.MARKS: 30****PAPER CODE: 21BSC5BOT5L1****DATE: 05/01/2024****Instructions:** All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.1. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

- | | |
|--------------------------|-------------------|
| 1. Fusiform root | 2. Tendril |
| 3. Vexillary aestivation | 4. Drupe |
| 5. Syngeneous anther | 6. Verticillaster |
| 7. Axile placentation | 8. Stolon |

Q.2. Answer any THREE of the following questions.**3x4=12**

1. Write the salient features of Apocynaceae
2. Describe Bentham and Hooker system of classification and its merits and demerits
3. Describe characters and economic importance of family Malvaceae
4. Describe the types of dry fruits with suitable examples
5. Define inflorescence ? explain any four type of Racemose inflorescence

Q.3. Answer any TWO of following questions**2x4=8**

1. Explain the characters economic importance of family Papilionaceae
2. Give a brief account taxonomic literature
3. Explain techniques of herbarium preparation
4. Assign the following to their respect families a) castor b) *Annona squamosa* c) legume d) cotton

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc V -SEMESTER FIRST INTERNAL ASSESMENT TEST JAN-2024****PAPER TITLE (DSC-1): PLANT MORPHOLOGY AND TAXONOMY****TIME: 1hr****MAX.MARKS: 30****PAPER CODE: 21BSC5BOT5L1****DATE: 05/01/2024****Instructions:** All the sections are compulsory, Draw neat labeled diagram wherever necessary.**Q.1. Answer any FIVE of the following in 2 or 3 sentences.****5x2=10**

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HEAD

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY

B.Sc 1ST -SEMESTER SECOND INTERNAL ASSESMENT TEST FEB-2024

PAPER TITLE (DSC): MICROBIAL DIVERSITY AND TECHNOLOGY

TIME: 1hr

PAPER CODE: 21BSC1BOT1L

MAX.MARKS: 30

DATE: 10/02/2024

Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.

Q.I. Answer any FIVE of the following in 2 or 3 sentences.

5x2=10

1. Lichens
2. Isogamy
3. Pencillium
4. Antibiotics
5. Capsid
6. SARS COV2
7. Viroids
8. PSTVd

Q.II. Answer any THREE of the following questions.

3x4=12

1. Explain the nutrition in fungi.
2. Explain reproduction in fungi.
3. Write a note on cyanobacteria.
4. List economic importance of bacteria.
5. Describe the structure of lichens.

Q.III. Answer any TWO of following questions

2x4=8

1. Describe the structure of T4 Bacteriophage.
2. Write about different types of Vaccine.
3. Write economics importance of Virus.
4. Write a brief account on Basal media and enriched media.

B.L.D.E.Association's

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR

DEPARTMENT OF BOTANY

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc 3rd -SEMESTER SECOND INTERNAL ASSESMENT TEST FEB-2024****PAPER TITLE (DSC): PLANT ANATOMY AND DEVELOPMENT BIOLOGY****TIME: 1hr****MAX.MARKS: 30****PAPER CODE: 21BSC2BOT3L****DATE: 13/02/2024****Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.****Q.1. Answer any FIVE of the following in 2 or 3 sentences. 5x2=10**

- | | |
|--------------------------------|-------------------------|
| 1.stamen | 2.marginal placentation |
| 3.morphogenesis | 4.stomata |
| 5.secretary tissue | 6.fasicular cambium |
| 7.leptocentric vascular bundle | 8. Bulliform cells |

Q.2. Answer any THREE of the following questions. 3x4=12

1. Explain the different types of vascular bundles
2. Describe the root hair formation
3. Explain the origin of shoot apical meristem
4. Explain the cell polarity in dictostelium .
5. Explain the anomalous secondary growth of boerhavia stem

Q.3. Answer any TWO of following questions 2x4=8

1. Explain the types of endosperm
2. Explain the secondary growth in dicot stem
3. Differentiate monocot and dicot stem
4. explain the development of leaf axis

S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR**DEPARTMENT OF BOTANY****B.Sc 3rd -SEMESTER SECOND INTERNAL ASSESMENT TEST FEB -2024****PAPER TITLE (DSC): PLANT ANATOMY AND DEVELOPMENT BIOLOGY****TIME: 1hr****MAX.MARKS: 30****PAPER CODE: 21BSC2BOT3L****DATE: 13/02/2024****Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.****Q.1. Answer any FIVE of the following in 2 or 3 sentences. 5x2=10**

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DEPARTMENT OF BOTANY

B.Sc 3-SEMESTER SECOND INTERNAL ASSESMENT TEST FEBRUARY 2024

PAPER TITLE (OEC): BOTANICAL GARDEN AND LANDSCAPING

TIME: 1hr

PAPER CODE: 003BOT051

MAX.MARKS: 30

DATE: 14/02/2024

Instructions: All the sections are compulsory

Q.1. Answer the following questions

5x2=10

1. plant avenues
2. climbers
3. Perennial
4. Informal garden
5. Urban planning
- 6.balance
7. Herbs

Q.2. Answer any THREE of the following questions.

3x4=12

1. Give brief account on vertical gardening
- 2.write note on adornments of garden
- 3.Explain culture of Bonsai
- 4.write note on water garden
- 5.Explain beautification of dam sites

Q.3. Answer any TWO of following questions

2x4=8

1. Explain beautification of round country planning
2. write note on ecotourism
3. Explain roof gardening

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S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPUR
DEPARTMENT OF BOTANY
B.Sc 5TH -SEMESTER SECOND INTERNAL ASSESMENT TEST FEB-2024
PAPER TITLE (DSC-2): GENETICS AND PLANT BREEDING

TIME: 1hr

PAPER CODE: 21BSC5BOT5L2

MAX.MARKS: 30

DATE: 14/02/2024

Instructions: All the sections are compulsory, Draw neat labeled diagram wherever necessary.

Q.I. Answer any FIVE of the following in 2 or 3 sentences.

5x2=10

1. Linkage
2. Recombination frequency
3. Genetic mapping
4. Physical Mutagens
5. Inbreeding depression
6. Emasculation
7. mutation breeding
8. Interspecific hybridization

Q.II. Answer any THREE of the following questions.

3x4=12

1. Explain the role of polyploidy in plant breeding
2. Explain the different types of distant hybridizations
3. Explain the role of biotechnology in plant breeding
4. Describe the steps involved in plant hybridization
5. Write important achievement of plant breeding

Q.III. Answer any TWO of following questions

2x4=8

1. Explain mechanism of crossing over
2. In corn, purple (P) is dominant to white endosperm (p) and full (F) is dominant over shrunken seed (f). The testcross progenies of F1 heterozygote (PpFf) individuals gave the following results. Purple & Shrunken-1575; Purple & Full-60; White & Shrunken-58, White & Full- 1667. Find i) percentage of crossing over, ii) distance between white and shrunken genes, iii) Draw linkage map for these two genes.
3. Describe structural variations in chromosomes.
4. Describe mutagenic effects of Base analogs and intercalating agents.

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DEPARTMENT OF BOTANY
B.Sc 5TH -SEMESTER SECOND INTERNAL ASSESMENT TEST FEB-2024
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- | | |
|--------------|------------------------|
| 1. Analogy | 2. Species Variations |
| 3. Genus | 4. Typification |
| 5. Staminode | 6. Clades |
| 7. Homology | 8. Taxonomic hierarchy |

Q.2. Answer any THREE of the following questions.**3x4=12**

1. Give a brief account on mode of speciation
2. Describe characters and economic importance of family Poaceae
3. Write a note on principles of botanical nomenclature
4. Explain the phonetic and cladistics of numerical taxonomy
5. Give Brief account on taxonomic hierarchy

Q.3. Answer any TWO of following questions**2x4=8**

1. Describe the taxonomic evidence of phytochemistry in angiosperms
2. Give a brief account on Rules of Botanical nomenclature
3. Write floral formula, draw floral diagram and economic importance of lamiaceae
4. Explain species concept.

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