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B.Sc. (Part-III) (Semester-V) (CBCS) Examination, October - 2023
ENGLISH (Compulsory)

**Ability Enhancement Compulsory Course English for
 Communication (Paper-III)**
Sub. Code : 79671

Day and Date : Tuesday, 31 -10 - 2023

Total Marks :40

Time :10.30 a.m. to 12.30 p.m.

- Instructions :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.

Q1) A) Rewrite the following, choosing the correct alternative: [3]

- a) The poem 'Enterprise' describes a _____ journey towards a specific goal.
 - i) Strange
 - ii) Happy
 - iii) Metaphorical
 - iv) Adventurous
- b) In the fable 'The Ant and the Grasshopper', the ant stands for_____.
 - i) Hard work
 - ii) Idleness
 - iii) Enjoyment
 - iv) kindness
- c) William Morris studied _____ for more than thirty years.
 - i) Science fiction
 - ii) Detective fiction
 - iii) Historical fiction
 - iv) Mystery fiction

B) Answer the following questions in one word/ phrase /sentence each. [3]

- a) Which award did Sudha Murty receive from Bhopal?
- b) What did the butterfly cover under its wings?
- c) How does, according to the poet Faiz Ahmad Faiz, the devotee go to the Pilgrims?

P.T.O.

Q2) A) Answer the following questions in 3 to 4 Sentences each. (2 out of 3)[4]

- a) How was the end of the journey in the poem 'Enterprise'?
- b) What was the cause of George's worry in the story?
- c) How did William Morris work closely with Miss. Suskind and Mr. Regnier to solve the problem?

B) Write a short note on the following in about 7 to 8 sentences. (1 out of 2) [4]

- a) Significance of the title 'Forgetting Our Own History'.
- b) Theme of the poem, 'For Your Lanes, My Country'.

C) Do as directed. [2]

- a) Write Noun form of the following word.

Exalt

- b) Give the synonyms of the following word.

Pleasure

Q3) a) Imagine that you are going to attend the interview for the post of a sales manager in a well reputed company. Prepare a mock interview of it. [8]

OR

Write a note on different stages of preparation for the interview.

- b) Write an email to the municipal corporation complaining about the bad condition of the roads in your area. [8]

OR

Share your experiences about participation in a NSS residential camp.

Q4) Write a well organized paragraph on "My first experience of Voting".[8]

OR

Write a report about your participation in a cultural event.



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B.Sc. (Part-III) (Semester-V) (CBCS) Examination, October - 2023

BOTANY

DSE,-E25 : Genetics and Plant Breeding (Paper-IX)

Sub. Code : 79688

Day and Date : Monday 23 - 10- 2023

Total Marks : 40

Time : 10.30 a.m. to 12.30 p.m.

- Instructions :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Draw neat labeled diagrams wherever necessary.

Q1) Rewrite the following sentences by Choosing correct alternative. [8]

- a) The law of segregation is also called _____
 - i) Law of Dominance
 - ii) Complementary Gene Interaction
 - iii) Law of independent assortment
 - iv) Law of purity of gamets
- b) Which of the following ratio shows complementary gene interaction?

i) 9:3:3:1	ii) 9:3:4
iii) 9:7	iv) 15:1
- c) Crossing over takes place in the _____ stage

i) Leptotene	ii) Zygotene
iii) Anaphase	iv) Pachytene
- d) Which one of the following is not a type of mutation?

i) Gene Mutation	ii) Chromosome Mutation
iii) Genomatic Mutation	iv) Phenotypic Mutation
- e) _____ plays an important role in maternal inheritance.

i) Nucleus	ii) Nucleolus
iii) Cytoplasm	iv) Ribosome

- f) The size, shape, and morphology of chromosomes of an organism constitute _____
- i) Karyotype
 - ii) Genotype
 - iii) Phenotype
 - iv) All of the above
- g) Polyploidy is induced through _____ breeding
- i) Pure line
 - ii) Mass
 - iii) Mutation
 - iv) Clonal
- h) Pure line selection generally refers to _____
- i) Heterozygosity
 - ii) Segregation
 - iii) Independent assortment
 - iv) Homozygosity

Q2) Attempt any two of the following. [16]

- a) Explain in detail importance of plant breeding
- b) Describe the types of structural variations in chromosomes
- c) What is linkage? Describe types of linkage.

Q3) Attempt any four of the following. [16]

- a) Supplementary gene interaction
- b) Hardy-Weinberg's law
- c) Plastid inheritance
- d) Types of mutagens
- e) Pure-line selection
- f) Law of independent assortment.



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B.Sc. (Part-III) (Semester - V) (CBCS)
Examination, October - 2023
BOTANY (Paper-X)
Microbiology, Plant Pathology and Mushroom Culture
Sub. Code : 79689

Day and Date : Wednesday, 25- 10 - 2023

Total Marks :40

Time :10.30 a.m. to 12.30 p.m.

- Instructions :
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Draw neat and labeled diagrams Wherever necessary.

Q1) Rewrite the following sentences by choosing correct alternatives. [8]

- a) The process of complete killing of microbes is called as _____
 - i) Isolation
 - ii) Inoculation
 - iii) Sterilization
 - iv) Quarantine
- b) The virus mediated bacterial recombination is known as _____
 - i) Transduction
 - ii) Conjugation
 - iii) Transformation
 - iv) Recombination
- c) _____ is a bio-pesticide.
 - i) Rogor
 - ii) Ekatox
 - iii) Trichoderma
 - iv) Bordeaux mixture
- d) Rust diseases in plants are mostly _____
 - i) seed borne
 - ii) air borne
 - iii) soil borne
 - iv) water borne
- e) Yellow vein mosaic of Bhendi is a type of _____ disease.
 - i) fungal
 - ii) phytoplasma
 - iii) bacterial
 - iv) Viral
- f) In alcohol fermentation _____ fungus is used.
 - i) *Penicillium*
 - ii) *Saccharomyces*
 - iii) *Aspergillus*
 - iv) *Oidium*

P.T.O.

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B.Sc. (Part - III) (Semester - V) (CBCS)
Examination, October - 2023
BOTANY (Paper - XI)
Cytology and Research Technique in Biology
Sub. Code : 79690

Day and Date : Friday, 27 - 10 - 2023

Total Marks : 40

Time : 10.30 a.m. to 12.30 p.m.

- Instructions :
- 1) All questions are compulsory.
 - 2) Draw neat and labelled diagrams wherever necessary.
 - 3) Figures to the right indicates full marks.

Q1) Rewrite the following sentences by choosing the correct alternative. [8]

- a) Polymorphism is the characteristics of _____ cell organelle.
- i) Polysomes
 - ii) Ribosome
 - iii) Lysosome
 - iv) E. R.
- b) Which of the following microscope use the light as the source of illumination?
- i) Phase contrast
 - ii) SEM
 - iii) TEM
 - iv) Electron
- c) Peroxysome involved in _____ metabolism.
- i) Fat
 - ii) H_2O_2
 - iii) Lipid
 - iv) Protein
- d) The 70 S ribosome consists of _____ subunit.
- i) 30 and 50
 - ii) 40 and 60
 - iii) 30 and 40
 - iv) 20 and 50

P.T.O.

- e) _____ cell organelle is semiautonomous.
- | | |
|------------------|------------------|
| i) Golgi complex | ii) Mitochondria |
| iii) Robosome | iv) Peroxysome |
- f) The network of endomembrane system is called _____.
- | | |
|---------------|---------------------------|
| i) Lysosome | ii) Endoplasmic reticulum |
| iii) Ribosome | iv) Peroxysome |
- g) The cathode of electron microscope consists of a _____.
- | | |
|--------------------|--------------------|
| i) Tungsten wire | ii) Aluminium wire |
| iii) Iron filament | iv) Gold wire |
- h) IPR protects the use of information and ideas that are of _____.
- | | |
|-------------------|----------------------|
| i) Ethical value | ii) Moral Value |
| iii) Social Value | iv) Commercial Value |

Q2) Attempt any two of the following. **[16]**

- a) Describe the structure of Eukaryotic Cell.
- b) Describe the ultrastructure of Chloroplast and add a note on its function.
- c) What is Mitosis? Explain various stages of Mitosis.

Q3) Attempt any four of the following. **[16]**

- a) Fluid Mosaic Model of Cell Membrane.
- b) Photomicrography.
- c) Nuclear Pore Complex.
- d) Principles of Electron Microscopy.
- e) Types of Ribosomes.
- f) Concept and importance of IPR.



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B.Sc. (Part-III) (Semester-V) (CBCS) Examination, October - 2023**BOTANY****DSC-E-28 : Horticulture and Gardening (Paper-XII)****Sub. Code : 79691****Day and Date : Monday, 30 - 10 - 2023****Total Marks : 40****Time : 10.30 a.m. to 12.30 p.m.**

- Instructions :**
- 1) All questions are compulsory.
 - 2) Draw neat & labeled diagrams wherever necessary.
 - 3) Figures to the right indicate full marks.

Q1) Rewrite the following sentences by choosing the correct alternative [8]

- a) _____ is a branch of horticulture that deals with vegetable cultivation.
- i) Pomology
 - ii) Olericulture
 - iii) Floriculture
 - iv) Landscape gardening
- b) _____ is the place where we grow fruit plants.
- i) Landscape
 - ii) Floriculture
 - iii) Olericulture
 - iv) Orchard
- c) In India major rose cultivating states are _____.
- i) Maharashtra
 - ii) Tamil Nadu
 - iii) Karnataka
 - iv) All of the above
- d) Wax is used to reduce _____ in plant tissues.
- i) minerals
 - ii) water losses
 - iii) anaerobic respiration
 - iv) colour
- e) Rooting in stem cuttings are stimulated by _____.
- i) IAA
 - ii) ABA
 - iii) Ethylene
 - iv) Citric Acid

P.T.O.

- f) Gootte is a type of ____.
- i) Cutting
 - ii) Layering
 - iii) Budding
 - iv) Grafting
- g) In ____ area is divided into different parts.
- i) Bonsai
 - ii) Layering
 - iii) Cutting
 - iv) Landscape gardening
- h) Bonsai is ____ art in origin.
- i) Indian
 - ii) Japanese
 - iii) Budding
 - iv) Grafting

Q2) Attempt any two of the following. **[16]**

- a) Define layering and add a note on types of layering that you have studied.
- b) Give details on cultivation and management of important pests and diseases of rose cut flowers.
- c) Define landscape gardening and describe its objectives.

Q3) Attempt any four of the following. **[16]**

- a) Grafting
- b) Olericulture
- c) Physical Fruit preservation method
- d) Bonsai Technique
- e) Mughal garden, Delhi
- f) T-Budding

