

Total No. of Printed Pages:2

SUBJECT CODE NO:- B-2024
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y. (Sem-V) Examination Oct/Nov 2019
Elective Paper
Botany Paper- XVI / (A) Diversity of Angiosperms – I

[Time: 1:30 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B
- 1) Attempt all questions
 - 2) Draw neat and well labeled diagrams wherever necessary.
- Q.1 What is Biodiversity? Write an essay on Biodiversity. 20
- OR
- Define Hot spot comment on hot spot in India. Add a note on Endemism. 20
- Q.2 Describe family papaveraceae up to floral formula and floral diagram. Add a note on its Economic importance. 20
- OR
- Write short note on any four 20
- a) Species diversity
 - b) Threatened categories
 - c) Floral characters of capparidaceae
 - d) Morphological characters of apiaceae
 - e) Economic importance of Rhamnaceae
 - f) Merits and Demerits of Bentham and Hooker's system
- Q.3 Multiple choice questions 10
- 1) Leading mega diversity centre of world is -----
a) Mexico b) south Africa c) Brazil d) India
 - 2) Botanic Garden is example of ----- types of conservation.
a) In – situ b) Ex- situ c) Both of above d) none of above
 - 3) Apocarpous condition is commonly seen in -----family.
a) Rhamnaceae b) Rutaceae c) Brassicaceae d) Magnoliaceae
 - 4) Hesperidium type of fruit is found in ----- family.
a) Nymphaeaceae b) Rutaceae c) capparidaceae d) cucurbitaceae

- 5) Ex –situ conservation includes -----
a) National park b) Botanical garden c) sanctuary d) none of these
- 6) Jim corbett national park is located in ---- state.
a) Madhya Pradesh b) Assam c) Uttarakhand d) Bihar
- 7) Sanjay Gandhi national park is located in -----state
a) Gujrat b) Maharashtra c) Kerala d) Madhya Pradesh
- 8) Parietal placentation is common in the ----- family.
a) Rutaceae b) Nymphaeaceae c) Papavaraceae d) None of these
- 9) Cruciform corolla is present in the ----- family.
a) Lythraceae b) Apiaceae c) Brassicaceae d) combretaceae
- 10) A . P. De Candolle system is based upon -----system.
a) De jussiaea b) caspard Baulin c) Bentham and Hooker d) Hutchinson

OR

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SUBJECT CODE NO:- B-2024
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y. (Sem-V) Examination Oct/Nov 2019
Botany Paper- XVI / (B) Plant Breeding and Seed Technology

[Time: 1.30 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B
- 1) Attempt all questions
 - 2) Illustrate your answer with suitable labeled diagrams whenever is necessary.

Q.1 What is plant breeding? Describe its aims and objectives. 20

OR

Write in brief

- a) Mass selection 20
- b) Latin square design

Q.2 What is hybridization? Describe the procedure & hybridization? 20

OR

Write short notes on (any four) 20

- 1) Merits and demerits & plant Introduction
- 2) Applications of heterosis
- 3) Clonal selection
- 4) Dicot seed
- 5) Storage seed
- 6) Nucleus seed

Q.3 Multiple choice questions 10

- 1) The oldest method of crop improvement is -----
a) Pure line selection b) clonal selection c) mass selection d) Hybridization
- 2) Domestication of plant species -----
a) Introduction b) plant species under human management
c) Heterogenous d) none of above
- 3) Crossing between two different species is known as
a) Intergeneric b) inter specific c) intra specific d) none of above
- 4) The oldest method of plant breeding is -----
a) Introduction b) Hybridization c) Selection d) none of above

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SUBJECT CODE NO:- B-2024
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y. (Sem-V) Examination Oct/Nov 2019
Botany Paper- XVI / (C) Plant Pathology

[Time: 1.30 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B
- 1) Attempt all questions
 - 2) Draw neat and well labeled diagram wherever necessary.
- Q.1 Describe in detail the concept of seed pathology. 20
- OR
- Describe in detail seed borne pathogen methods and application 20
- Q.2 Describe in detail symptoms, causal organism disease cycle and management of Tikka disease of groundnut. 20
- OR
- Write short notes on (any four) 20
- a) Late blight of potato
 - b) Downy Mildew of grapes
 - c) Powdery Mildew of rose
 - d) Animate plant pathogens
 - e) Ergot of Bajra
 - f) Little leaf of Brinjal
- Q.3 Multiple choice questions 10
- 1) ---- diseases are native to a particular place
 - a) Endemics b) cosmopolitan c) sporadic d) none of these
 - 2) The sexual fruiting body of an Basidiomycetes fungus known as
 - a) Basidiospores b) Basidiocarp c) Basidium d) Ascocarp
 - 3) The substance used to solidify liquid culture media is called
 - a) Agar b) yeast c) Dextrose d) Glucose
 - 4) An international society of plant pathology was formed in
 - a) 1965 b) 1968 c) 1962 d) 1972
 - 5) Tikka disease of groundnut caused by
 - A) Cercospora personata b) claviceps c) fusarium d) none of these
 - 6) Control of pathogen after entry into the crop field is termed as
 - a) Eradication b) exclusion c) protection d) all of these

- 7) Aflatoxin is produced by the fungus
a) Aspergillus b) Rhizopus c) Fusarium d) Alternaria
- 8) Who is known as father of Indian Mycology
a) K .C .Mehta b) E.J. Butler c) Sadasivan d) none
- 9) Yellow vein Mosaic of bean is caused by
a) Virus b) Fungi c) Bacteria d) Mycoplasma
- 10) IARI is located at
a) Mumbai b) Jaipur c) Hyderabad d) New Delhi

OR

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SUBJECT CODE NO:- B-2024
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y. (Sem-V) Examination Oct/Nov 2019
Botany Paper- XVI / (D) Bio-Technology

[Time: 1.30 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B 1) Attempt all questions
2) Draw neat and well labeled diagrams.
- Q.1 What is genomic? Elaborate the concept and explain the scope of genomics. 20
 OR
 Describe in detail structure of DNA 20
- Q.2 What is DNA finger printing? Explain the procedure, advantages application and limitation of finger printing. 20
 OR
 Write short note (any four) 20
 a) Application of tissue culture
 b) Scope of biotechnology
 c) Transgenic plants
 d) Application of PCR technology
 e) Vectors
 f) Marker genes
- Q.3 Multiple choice questions 10
 1) Out of the following enzymes which one is used to join segments of DNA during genetic engineering?
 a) Lipase b) ligase c) gyrase d) helicase
 2) DNA finger printing refers to
 a) Techniques used for molecular analysis of different specimens of DNA
 b) Techniques used for identification of fingerprints of individuals
 c) Molecular analysis of profiles of DNA samples
 d) Analysis of DNA sample
 3) The genome map was produced under human genome project in
 a) 1992 b) 1994 c) 1996 d) 2000
 4) The replication of DNA is brought out by an enzyme known as
 a) Oxidase b) reductase c) kinase d) polymerase
 5) Restriction endonuclease is use in
 a) Genetic engineering b) Tissue culture
 c) cell fractionation d) Regeneration of tissue

- 6) The structure which are most common tools of genetic engineering
 - a) Virus
 - b) plasmids
 - c) Episome
 - d) None of these
- 7) A plant cell has potential to develop in to full plant. This property of the plant cell is called
 - a) Tissue culture
 - b) Totipotency
 - c) pluripotency
 - d) Gene cloning
- 8) The first step in genetic engineering is
 - a) Isolation of protein
 - b) purification of protein
 - c) Isolation of genetic material
 - d) Isolation of DNA
- 9) Vectors -----
 - a) Are artificial DNA
 - b) Are low molecular weight of DNA
 - c) Can multiply independently
 - d) All of these
- 10) Base pairs present in one turn of DNA are
 - a) 12
 - b) 11
 - c) 10
 - d) 9