Roll No. _____ [Total No. of Pages : 2

PGIIS-1073 A-16
M.Sc. IInd Semester Degree Examination
Botany
(Plant Anatomy And Embryology)
Paper : HCT- 2.1

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates:

1. Answer any **five** questions
2. Question **No -1** is Compulsory

1. Answer in one or two sentences: **(8×2=16)**

a) Symplast

b) Cambium

c) Diffuse porous wood

d) Endosperm haustoria

e) Synergid

f) Syngamy

g) Somatic embryo

h) Self in compatibility

2. Give an account of ontogeny, phylogeny and evolution of phloem. **(16)**

3. Describe the anomalous secondary growth of Nyctanthus **(16)**

4. Write a detailed account of tapetum and its types. **(16)**

5. Write an account of double fertilization in Angiosperms. (16)

6. Write short notes on **any four** of the following (4×4=16)

a) Monocot embryo

b) Helobial endosperm

c) General account of xylem

d) Nutrition of embryo sac

e) Types of stigma

f) Pollen structure.

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PGIIS-1074 A-16
M.Sc. IInd Semester Degree Examination
Botany
(Cell Biology and Genetics)
Paper : HCT- 2.2

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates:

1. *Answer any five questions*
2. *Question No -1 is Compulsory*

1. Answer in one or two sentences **(8×2=16)**

a) Motor Proteins

b) Cellular check points

c) Euchromatin

d) Epistasis

e) RUBISCO

f) Gene pool

g) Repetitive DNA

h) Proof reading

2. Write an account on cytoskeletons and cell moments **(16)**

3. Discuss the molecular basis of crossing over **(16)**

4. Write in detail the experimental evidences in support of DNA as genetic material. **(16)**

5. Explain genetic disorders and their management **(16)**

6. Write short notes on any four of the following **(4×4=16)**

   a) DNA damage and repair

   b) Chromatin organization

   c) Complementary gene

   d) Hormones in sex differentiation

   e) Factor effecting allelic frequency in population

   f) Mitochondrial genome.

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PGIIS 1076 A-16
M.Sc. IInd Semester Degree Examination
Botany
(Plant Breeding And propagation)
Paper : BOT SCT- 2.3.2

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates:

1. *Answer any* ***Five*** *questions*
2. *Question No -1 is Compulsory*

1. Answer in one or **Two** sentences **(8×2=16)**

a) Self Pollination

b) Hybrid vigour

c) Sterilization

d) Pure lines

e) Graft in compatibility

f) Back cross

g) Male sterility

h) Explant

2. Write an account on techniques and procedures of hybridization **(16)**

3. Write an account an budding and importance. **(16)**

4. Give an account of self in compatibility and its types **(16)**

5. Give a detailed account of somaclonal variations in crop improvement **(16)**

6. Write short notes on any four of the following (4×4=16)

a) Merits and demerits of back cross

b) Apomictic plants

c) Objectives of Plant breeding

d) Cutting

e) Seed dormancy

f) Heterosis.

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PGIIS-1077 A-16
M.Sc. IInd Semester Degree Examination
BOTANY
(Biofertilizers and Biopesticides)
Paper : OET - 2.4

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates:

1. *Answer any five questions*
2. *Question No -1 is Compulsory*

1. Answer in one or two sentences **(8×2=16)**

a) Peat

b) Phosphobacteria

c) Azospirillum

d) Lyngbya

e) Ectomycorrhizae

f) Gigaspora

g) Norkrams Agar Media.

h) Limitations of biopesticides

2. Explain mass production of bacterial biofertilizers and their merits. **(16)**

3. Give an account of symbiotic cyanobacteria and their use as biofertilizers **(16)**

4. Write a general account and applications of mycorrhiza in agriculture **(16)**

5. Discuss uses and limitations of bacterial biopesticides and their applications. **(16)**

6. Write short notes on any four of the following **(4×4=16)**

   a) Azotobacter

   b) Protonema

   c) Azolla as biofertilizer

   d) Application of bioinspecticides

   e) Trichoderma

   f) Insecticidal plants.