BOT 201.1 **Reg. No. ……**

CREDIT BASED SECOND SEMESTER B.Sc. DEGREE EXAMINATION
APRIL 2012

BOTANY - I

PLANT DIVERSITY - I

Time: 3 Hrs **Max. Marks: 80**

Instructions:

1. **Answer both Part A & Part B.**
2. **Answer SIX full questions from Part B, selecting at least two full questions from each unit.**
3. **All questions in Part B carry equal marks.**
4. **Draw diagrams wherever necessary.**

PART – A

1. Answer **any TEN** of the following. **2x10=20**
   a) Mention any two characters of class Phaeophyceae.
   b) What is nannandrium? Where it is found?
   c) What is raphe? What is it's significance?
   d) What is trichoblast?
   e) What are the types of rhizoids in *Riccia*? Mention its function.
   f) What are pseudoelaters? Where are they found?
   g) Mention two species of *Psilotum* and their habitat.
   h) Give two hydrophytic features of *Equisetum*.
   i) What are coralloid roots?
   j) What is anamolous secondary growth? Give an example.
   k) What is the spore bearing structure of *Marsilea*?
   l) Mention the types of eras in geological time scale.

PART – B
UNIT – I

Answer **any TWO** of the following. **10x2=20**

2. a) What are the criteria used in classification of algae? Give an outline of Frisch's system of classification of algae. **5**
   b) Write a note on neuromotor apparatus in *Chlamydomonas.* **3**
   c) Draw a neat labelled diagram of T.S. of stolon of *Caulerpa.* **2**

3. a) Explain the cell division in *Oedogonium*. **5**
   b) Write a note on Gongrosera stage in *Vaucheria.* **3**
   c) Explain the girdle view of *Pinnularia.* **2**

4. a) Describe the male conceptacle in *Sargassum.* **5**
   b) Write a note on cystocarp in *Polysiphonia.* **3**
   c) Write a note on media used in algal culture. **2**

UNIT – II

Answer **any TWO** of the following. **10x2=20**

5.	a)	Describe the internal structure of *Riccia.*	**5**
	b)	Write a note on protonema of *Funaria.*	**3**
	c)	Mention the types of Protosteles.	**2**
6.	a)	Describe the evolution of Gametophytes in Bryophytes.	**5**
	b)	Write a note on synangium of *Psilotum.*	**3**
	c)	Explain the external structure of mature sporophyte of *Funaria.*	**2**
7.	a)	Discuss the morphological nature of Rhizophore.	**5**
	b)	Write a note on *Equisetum* strobilus.	**3**
	c)	Mention two algal features of *Anthoceros.*	**2**

UNIT – III

Answer **any TWO** of the following. **10x2=20**

8.	a)	Describe the internal structure of *Marsilea* Stem.	**5**
	b)	Write a note on fertile pinnule of *Pteris.*	**3**
	c)	List any four primitive features of *Rhynia.*	**2**
9.	a)	Describe the structure of female cone in *Pinus.*	**5**
	b)	Explain the male flower of *Gnetum*.	**3**
	c)	Mention the different types of techniques used for fossil study.	**2**
10.	a)	Describe the structure of microsporophyll in *Cycas.*	**5**
	b)	Write a note on prothallus of *Pteris.*	**3**
	c)	Write a note on *Cycadoidea* Flower.g	**2**

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CREDIT BASED SECOND SEMESTER B.Sc. DEGREE EXAMINATION
APRIL 2013

BOTANY - I
PLANT DIVERSITY - I

Time: 3 Hrs **Max. Marks: 80**

Instructions:
1. **Answer both Part A & Part B.**
2. **Answer SIX full questions from Part B, selecting at least two full questions from each unit.**
3. **All questions in Part B carry equal marks.**
4. **Draw diagrams wherever necessary.**

PART – A

1. Answer **any TEN** of the following. **2x10=20**
   a) Mention the pigments and reserve food present in Xanthophyceae members.
   b) Define the term kelp and algin.
   c) What are cryptoblasts? Where do you find it?
   d) Mention the parts of neuromotor apparatus in chlamydomonar.
   e) How do you distinguish the thallus of Riccia and Anthoceros by seeing externally?
   f) What is peristome. Mention its function.
   g) Mention two types of canals found in the stem anatomy of Equisetum.
   h) What is rhyzophore? Where it is found?
   i) What is coenosorus? Where it is found?
   j) What relationship is there between mycorrhiza with the root of Pinus?
   k) What are coralloid roots? Where do you find them?
   l) List two salient features of cycadoidea flower.

PART – B
UNIT – I

Answer **any TWO** of the following. **2x10=20**

2. a) Describe the reproduction in Nannandrous type of oedogonium. **5**
   b) Write a note on algal culture. **3**
   c) Briefly explain the structure of sex organs in Vaucheria. **2**

3. a) Explain the structure of Pinnularia. **5**
   b) Write a note on airbladders and receptacles in sargassum. **3**
   c) List any four salient features of phacophyceae. **2**

4.	a)	Describe the a sexual reproduction in volvox.	**5**
	b)	Write a note on Diatomite.	**3**
	c)	What is tetrasporophyte.	**2**

UNIT – II

Answer **any TWO** of the following. **10x2=20**

5.	a)	Describe the structure of Riccia sporophyte.	**5**
	b)	Draw a neat labeled sketch of L.S. of selaginella cone.	**3**
	c)	Write a note on role of bryophytes in soil conservation.	**2**
6.	a)	With the help of labeled diagram, explain the sporophyte of Psilotum.	**5**
	b)	Write a note on antheritial head of Funaria.	**3**
	c)	Write note on pseudoelaters.	**2**
7.	a)	Draw a neat labeled sketch of L.S. of sporophyte of Anthoceros.	**5**
	b)	Write a note on sporangiophore of Equisectum.	**3**
	c)	Compare solenostele with dictyostele.	**2**

UNIT – III

Answer **any TWO** of the following. **10x2=20**

8.	a)	Explain the internal structure of Cycas leaflet.	**5**
	b)	Write a note on fertile pinna of Pteris.	**3**
	c)	Mention the types of fossils.	**2**
9.	a)	Describe the structure of Marsileasporophy.	**5**
	b)	What is palaeobotany? Discuss briefly the objectives of palaeobotanial studies.	**3**
	c)	Write short note on male flower of Gnetum.	**2**
10.	a)	Describe the female cone of Pinus.	**5**
	b)	List the primitive characters of Rhynia.	**3**
	c)	What is Geological Time Scale? Explain.	**2**

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BOT 201.1 **Reg. No. ……**

CREDIT BASED SECOND SEMESTER B.Sc. DEGREE EXAMINATION APRIL 2014

BOTANY-II

PLANT DIVERSITY - I

Time: 3 Hrs **Max. Marks: 80**

Instructions:

1. **Answer both Part A & Part B.**
2. **Answer two full questions from each unit.**
3. **All questions in Part B carry equal marks.**
4. **Draw diagrams wherever necessary.**

PART – A

1. Answer **any TEN** of the following. **10x2=20**
   a) Name any four species of *Caulerpa.*
   b) Differentiate between Eusporangiopsida and Leptosporangiopsida.
   c) Describe pollen grains / microspores of *Pinus.*
   d) Differentiate between Macrandrous and Nannandrous male.
   e) Differentiate between smooth and pegged rhizoids.
   f) Write a note on pavement tissue.
   g) Define fossils. Mention any two methods of study.
   h) Mention any two characters of Pteridophytes.
   i) What are Auxospores? Give their significance.
   j) Define a) Trichoblast b) Blepharoplast
   k) Describe the spores of *Equisetum*.
   l) What are hornworts? Give an example.

PART – B

UNIT – I

Answer **any TWO** of the following. **10x2=20**

2. a) Explain Asexual reproduction in *Volvox.* **5**
   b) Describe the girdle view of *Pinnularia.* **3**
   c) Describe any *two* harmful effects of Algae. **2**

3. a) Describe the Cystocarp in *Polysiphonia.* **5**
   b) Write a note on Algal Culture. **3**
   c) Write a note on Chloroplast of *Chlamydomonas*. **2**

4. a) Describe the morphology of *Sargassum* thallus. **5**
   b) Write a note on Sex-organs in *Vaucheria*. **3**
   c) Write a note on pigments and reserve food material in Rhodophyceae. **2**

UNIT – II

Answer **any TWO** of the following. **10x2=20**

5.	a)	Draw a labelled diagram of sporophyte of *Anthoceros.*	**5**
	b)	Write a note on stem and leaves of *Equisetum.*	**3**
	c)	Differentiate between perigonial and perichaetial leaves.	**2**
6.	a)	Explain the evolution of sporophytes in Bryophytes.	**5**
	b)	Write a note on Protonema.	**3**
	c)	Describe the ligule of *Selaginella*.	**2**
7.	a)	Explain the variations in protosteles of Pteridophytes.	**5**
	b)	Describe the mature sporophyte of *Riccia.*	**3**
	c)	Describe the morphological nature of Synangium of *Psilotum*.	**2**

UNIT – III

Answer **any TWO** of the following. **10x2=20**

8.	a)	Draw a labelled diagram of the H.L.S. of sporocarp.	**5**
	b)	Give the significant features of corolloid roots.	**3**
	c)	Give the components of *Cycadoidea* flower.	**2**
9.	a)	Explain the structure of female cone of *Pinus*. Add a note on its morphological nature.	**5**
	b)	Explain the fertile pinnae of *Pteris.*	**3**
	c)	Write a note on male flowers of *Gnetum.*	**2**
10.	a)	Mention the Advanced features seen in *Gnetum.*	**5**
	b)	Describe the archegonium of *Pteris*.	**3**
	c)	Write a note on Geological time scale.	**2**

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BOT 201.2 **Reg. No. ……**

CREDIT BASED SECOND SEMESTER B.Sc. DEGREE EXAMINATION APRIL 2015

BOTANY

PAPER II - PLANT DIVERSITY- I

Time: 3 Hrs **Max. Marks: 80**

Instructions:

1. **Answer both Part A & Part B.**
2. **Answer two full questions from each unit.**
3. **All questions in Part B carry equal marks.**
4. **Draw diagrams wherever necessary.**

PART – A

1. Answer **any TEN** of the following: **10x2=20**
   a) Comment on the cell wall of *Pinnularia.*
   b) Name any four species of *Caulerpa.*
   c) What are trichoblasts? Where are they found?
   d) What is algin? Give two examples for algin producing algae.
   e) List any two economic importances of Bryophytes.
   f) Write the diagrammatic representation of life cycle of *Riccia.*
   g) What is actinostele? Give one example.
   h) What are psuedoelaters? Give their function.
   i) What is ligule? Where do you find it?
   j) What is indusium? Mention its function.
   k) Give two examples for heterosporous Pteridophytes.
   l) List any two techniques of study of fossils.

PART – B

UNIT – I

Answer **any TWO** of the following: **2x10=20**

2. a) Explain the structure of *Volvox* coenobium. Give an account of its asexual reproduction **6**
   b) Explain the thallus structure of *Sargassum.* **4**

3. a) Give an account of sexual reproduction of *Polysiphonia* with suitable diagrams. **6**
   b) Explain the thallus structure of *Vaucheria.* **4**

4. a) What is an auxospore? Explain its formation and significance. **6**
   b) Explain the sexual reproduction of *Spirogyra.* **4**

UNIT – II

Answer **any TWO** of the following: **2x10=20**

5. a) Describe the structure of *Funaria* capsule with suitable diagrams **6**
   b) List any four important characters of Pteridophyta. **4**

6. a) Give an account of types and Primitive features of *Rhynia.* **6**
   b) Explain the life cycle of *Anthoceros.* **4**

7. a) Explain morphology and anatomy of Riccia thallus with a labelled diagram. **6**
   b) Draw a diagram of *Psilotum* sporophyte and label the parts. **4**

UNIT – III

Answer **any TWO** of the following: **2x10=20**

8. a) Explain the morphology of *Equisetum* sporophyte. Add a note on its cone structure **6**
   b) What is meant by gradate sorus? Explain it with a suitable example **4**

9. a) Explain the rhizome anatomy of *Marsilea* with a labelled diagram. **6**
   b) Write short note on i) Types of fossils.
   ii) Fossil formation 4

10. a) Explain the reproductive structures of *Ophioglossum* and *Osmunda.* **6**
    b) Comment on the structure and morphological nature of *Selaginella* rhizophore. **4**

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BOT 201.2 Reg. No. .....

CREDIT BASED SECOND SEMESTER B.Sc. DEGREE EXAMINATION APRIL 2016

BOTANY

PLANT DIVERSITY -I

Time: 3 Hrs **Max. Marks: 80**

Instructions:

1. **Answer both Part A & Part B.**
2. **Answer two full questions from each unit.**
3. **All questions in Part B carry equal marks.**
4. **Draw diagrams wherever necessary.**

PART – A

1. Answer **any TEN** of the following. **10x2=20**
   a) What are pyrenoids? Where do they occur?
   b) What is an eye spot? Give one example for the eyespot bearing algae.
   c) What are raphae and girdles?
   d) What are cryptoblasts? Where do you find them?
   e) Comment on the rhizoids of Bryophytes.
   f) What is Calyptra? Where do you find it?
   g) Explain plectostele with an example.
   h) Write two primitive features of *Rhynia*.
   i) What is heterospory? Give one example.
   j) Name the spore bearing organs of *Ophioglossum* and *Osmunda*.
   k) Comment on the stele of *Marsilea* stem.
   l) What is cast?

PART – B

UNIT – I

Answer **any TWO** of the following. **2x10=20**

2. a) Give an account of sexual reproduction of *Volvox* with suitable diagrams. **6**
   b) Explain the internal structure of *Caulerpa* stolon with a diagram. Name any two species of *Caulerpa*. **4**

3. a) Explain the structure of Carposporophyte and Terasporophyte of *Polysiphonia* with suitable diagrams. **6**
   b) What is diatomite? List any three uses of it. **4**

4. a) Give an account of sexual reproduction of *Sargassum*. **6**
   b) Explain the thallus structure of *Vaucheria* with a labeled diagram. **4**

UNIT – II

Answer **any TWO** of the following. **2x10=20**

5. a) Give an account of external morphology of *Funaria* and describe the structure of moss flower. **6**
   b) Explain the structure of *Psilotum* synangium. **4**

6. a) Give an account of Evolution of sporophytes in Bryophyta. **6**
   b) List the major classes of pteridophyta with one example for each class. **4**

7. a) "*Anthoceros* is a synthetic form"- Discuss. **6**
   b) List any four economic importance of Bryophyta. **4**

UNIT – III

Answer **any TWO** of the following. **2x10=20**

8. a) Describe the stem anatomy of *Equisetum.* **6**
   b) Explain the structure of mature prothallus of *Pteris.* **4**

9. a) Give an account of Geological time scale. **6**
   b) What is a Rhizophore? Discuss its Morphology. **4**

10. a) Describe the spore bearing organ of *Marsilea* with a diagram. **6**
    b) Write a note on fossil formation. **4**

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