2/EH–62 (ii) (Syllabus–2015)

2016

(April)

BOTANY

(Elective/Honours)

SECOND PAPER

(Gymnosperm, Paleobotany, Morphology and Anatomy)

Full Marks : 56

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer Question No. **1** which is compulsory and **four** from the remaining, selecting one from each section

1. Give accounts of the following : 4×4=16

(a) Economic importance of gymnosperms

(b) Aestivation types

(c) Fascicular and interfascicular cambium

(d) *Williamsonia sewardiana*

SECTION—I

2. Discuss the development of male gametophyte in *Pinus*. 10

3. Discuss the following : 5×2=10

(a) Affinities of gymnosperms with pteridophytes

(b) Angiospermic characters of *Gnetum*

SECTION—II

4. What are the different eras in the geological time scale? Discuss the dominant Jurassic flora. 2+8=10

5. What are fossils? Describe the different types of fossilisation processes. 2+8=10

SECTION—III

6. With the help of suitable diagrams, describe the different types of inflorescence. 10

7. What is a stamen? Discuss its evolutionary trends. 1+9=10

SECTION—IV

8. Give an illustrated account of the different types of stomata in angiosperms. 10

9. Write notes on the following : 5+5=10

(a) Components of xylem

(b) Tunica-corpus theory

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(Elective)

(BOTELH–201)

(Gymnosperms, Paleobotany, Morphology and Anatomy)

Marks : 56

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions in total including Question No. **1** which is compulsory and select remaining **four** questions **one** from each Section

1. Write short notes on the following : 4×4=16

(a) Male cone of *Pinus*

(b) Geological timescale

(c) Different types of placentation in angiosperms

(d) Structure and functions of phloem tissue in angiosperms

Section—I

2. Describe development of male gametophyte and female gametophyte in *Cycas*. 5+5=10

3. Describe the reproductive structures of *Gnetum*. Mention angiospermic characters of *Gnetum*. 5+5=10

Section—II

4. Describe different types of plant fossils and their formations. 6+4=10

5. Give an account of Cycadofilicales. 10

Section—III

6. Give different forms of anthers in flowers of angiosperms giving examples with sketches. 10

7. Give an account of the structure and evolution of carpel in angiosperms. 10

Section—IV

8. Describe organization of shoot apical meristem in angiosperms. 10

9. Describe the process of secondary growth in stems of dicotyledonous plants giving suitable sketches. 10

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2018

(April)

BOTANY

(Elective/Honours)

(Gymnosperms, Paleobotany, Morphology and Anatomy)

(BOTELH–201)

Marks : 56

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions in total including Question No. **1** which is compulsory and select remaining **four** questions, **one** from each Section

1. Write short notes on the following : 4×4=16

(a) Male cone of *Cycas*

(b) Geological timescale

(c) Different types of aestivation in angiosperm

(d) Components of xylem

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SECTION—I

2. Describe the development of male gametophyte of *Pinus*. 10

3. "*Gnetum* is a gymnosperm, but exhibits closeness with angiosperms." Discuss. 10

SECTION—II

4. Describe the factors and process of fossilization. 4+6=10

5. Describe the dominant Jurassic flora. 10

SECTION—III

6. Give different types of cymose inflorescence in angiosperms with examples. 10

7. Give an account of the evolutionary trends of stamens in angiosperms. 10

SECTION—IV

8. Describe different types of stomata in angiosperms with diagrams. 10

9. Describe anomalous secondary growth in the stem of *Dracaena* and *Mirabilis*. 5+5=10

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