



K22U 0373

Reg. No. :

Name :

VI Semester B.Sc. Degree (CBCSS – OBE – Regular) Examination, April 2022
(2019 Admission)

CORE COURSE IN BOTANY/PLANT SCIENCE
6B13BOT/PLS : Evolution and Palaeobotany

Time : 3 Hours

Max. Marks : 40

Instruction : Draw diagrams wherever specified.

PART – A

Objective type questions. Answer **all**.

(4×1=4)

- The force that initiates evolution is _____
a) Variation b) Mutation c) Extinction d) Adaptation
- The pollen-bearing organ of *Lyginopteris* belongs to
a) *Cycadeoidea* b) *Crosstheca*
c) *Calymmaatothecaa* d) *Williamsonia*
- Homo erectus* is the zoological name of
a) Java ape man b) Peking man
c) Neanderthal man d) Both a and b
- Which of the following has the longest duration ?
a) Eons b) Period c) Era d) Epoch

PART – B

Short Essay Questions. Answer **any eight**.

(8×2=16)

- What is germplasm theory ?
- Explain monophyly.
- Draw and label the structure of sporangium of *Rhynia*.

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- Briefly explain the agricultural evolution with an example.
- Which fossil is *Lepidodendron* ?
- Define the endosymbiotic theory.
- What kind of cell was LUCA and when did it first exist ?
- Differentiate between parallel and convergent evolution.
- Describe atavism.
- Write on speciation.
- What is carbon dating ?
- Why did homo neanderthalensis disappear ?

PART – C

Essay Questions. Answer **any four**.

(4×3=12)

- What are the main differences between macro and micro evolution ?
- Give an account of the polygenic inheritance and also how it helps evolution.
- Distinguish between man and apes.
- Briefly explain the fossil evidences related to reproduction in *Williamsonia*.
- Write note on Hardy-Weinberg law.
- Briefly discuss the changes in atmosphere and biosphere during the earth's evolution up to coenozoic era.

PART – D

Long Essay Questions. Answer **any one**.

(1×8=8)

- Write an essay on fossilisation and types of fossils.
- Discuss Neo-Darwinism and other modern concepts of evolution.
- Explain the contributions of Indian Palaeobotanists.