

20000988



Reg. No.....

Name.....

**M.Sc. DEGREE (C.S.S.) EXAMINATION, NOVEMBER 2020**

**Second Semester**

Faculty of Science

Branch VI : Botany

PC 5—GYMNOSPERMS, EVOLUTION AND DEVELOPMENTAL BIOLOGY

(2012—2018 Admissions)

Time : Three Hours

Maximum Weight : 30

I. Answer any *six* of the following in not less than 50 words. (Weight 1 each) :

- 1 Why Ginkgo is referred an living fossil ?
- 2 What are the characteristics of cycadophytes ?
- 3 Name two paleozoic families of gymnosperms.
- 4 Name the megasporophyll of Lyginopteris.
- 5 What is the peculiarity of stomata in cycadales ?
- 6 Give the binomial and family of Kauri Pine.
- 7 What are the fern characteristics of gymnosperms ?
- 8 Explain the term 'demes'.

(6 × 1 = 6)

II. Answer any *seven* of the following in not less than 100 words. (Weight 2 each) :

- 9 Explain the anatomical features of Lyginopteris.
- 10 Explain the endosperm of gymnosperms.
- 11 Explain genetic drift.
- 12 Mention the reproductive structures of Aneurophyton.

Turn over





20000988

- 13 Explain preformation theory.
- 14 Describe theory of catastrophism.
- 15 Mention the morphological features of Williamsonia.
- 16 Differentiate natural and artificial selection.
- 17 Mention Baldwin effect.
- 18 Explain cell-fate and cell lineages.

(7 × 2 = 14)

III. Answer any *two* of the following in not less than 250 words. (Weight 5 each) :

- 19 Give an account of the theories of evolution.
- 20 Explain the applications of palynology.
- 21 Give an account of the economic significance of gymnosperms.

(2 × 5 = 10)

