

BOWEN UNIVERSITY IWO
COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE
PURE AND APPLIED BIOLOGY PROGRAMME
2022/2023 SECOND SEMESTER EXAMINATION

BLY 214: BIOLOGY OF SEED PLANTS

Instruction: Answer question one (compulsory) and any two others **Time allowed: 2hrs 30mins**

1. (a) Give a concise description of the genus *Pinus*. State its morphology, general ecology and growth requirements. (15 marks)
(b) With the aid of an illustrated diagram, describe a generalized complete angiosperm flower and state the function of five (5) labelled parts. (10 marks)
(c) State the complete floral description of a flower with the following floral formula:
 $\oplus K_{(5)} C_{(5)} A_{5-\infty} \bar{G}_1$ (5 marks)
2. Describe fully the processes of pollination and fertilization in Pines. (20 marks)
3. (a) Briefly describe the types of placentation found in angiosperm fruits. (10 marks)
(b) Mention three (3) different types of simple fleshy fruit and any two (2) types of simple dry fruit with a **named** example for each. (10 marks)
4. Provide a detailed analysis of the occurrence, botanical description, and economic importance of the *Fabaceae* family. (20 marks)
5. (a) Write short notes on the following group of Gymnosperms
i. *Ephedra* (5 marks)
ii. *Gnetum* (5 marks)
iii. *Welwitschia* (5 marks)
(b) State five economic importance of Cycads (5 marks)