BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE EDUCATION

DEPARTMENT OF CURRICULUM AND EDUCATIONAL MANAGEMENT STUDIES

DIPLOMA IN MATHEMATICS AND GEOGRAPHY EDUCATION

DG 008 (01): BIOGEOGRAPHY

DURATION: 3 HOURS **TOTAL MARKS: 75**

INSTRUCTIONS TO CANDIDATES

1. Answer any **three** questions.
2. Each question should begin on a new page
3. Each question carries 25 marks.

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1. Discuss the fundamental split between:
   (a) historical biogeography and ecological biogeography. (12)
   (b) historical biogeography and ecological biogeography in the study of plants and animals. (13)
2. Figure 1 below shows the distribution of plant formations.

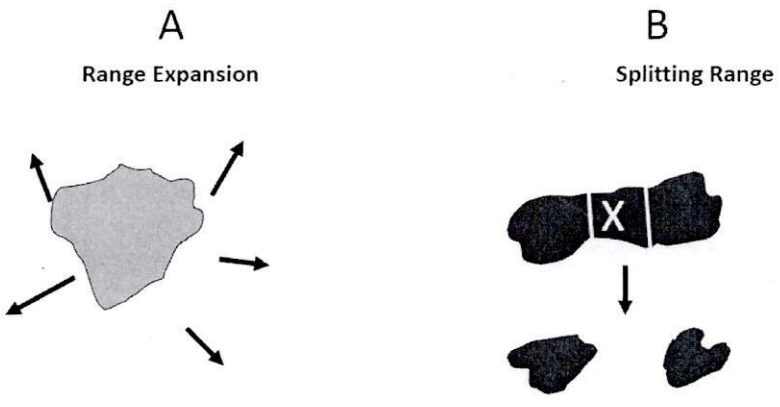

Fig. 1: Distribution of plant organisms.

(a) Name the distribution types represented by **A** and **B.** (2)

(b) Describe any four methods that are responsible for the range expansion in diagram **A.** (8)

(c) Describe any four events that may result in the disjunct distribution (Split X) in diagram **B.** (9)

(d) Explain any two possible impacts of permanent isolation on the organisms in **B.** (6)

3. Discuss the possible causes of high extinction rates among the founding/colonizing populations of organisms found on small islands (25)

4. Explain the importance of the Tropical Rainforests to the human and ecological well-being. (25)

5. Assess the importance of establishing Protected Areas (PAs) in biodiversity conservation. (25)

END OF PAPER