

KATHMANDU UNIVERSITY
End Semester Examination
July/August 2024

Marks Scored:

Level : B.Sc.

Year : II

Exam Roll No. :

Time: 30 mins.

Registration No.:

Course : ENVS 206

Semester : I

F. M. : 20

Date : 15 JUL 2024

SECTION "A"

[16Q. × 0.5 = 8 marks]

Choose and mark [X] encircle the most appropriate option from each set of choices

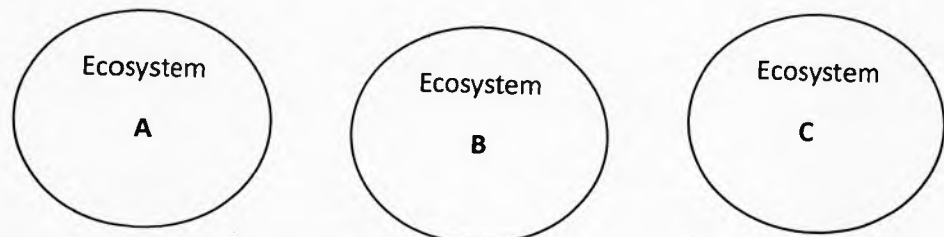
- Which of the following is incorrect about the DNA?
 It is a double helical structure
 it contains only purines
 It is made up of nucleotides
 it contains phosphor-di-ester bonds between two adjacent nucleotides
- Which of the following is considered as salamander hotspots?
 The Andes
 The Appalachian mountains
 The Alps
 The Aravalli mountain range
- A contiguous population without barriers to gene flow except at one location with co-occurrence of two reproductively isolated populations is referred to as
 sibling species
 hybrids
 ring species
 transgenics
- Speciation due to failure of gene flow between individuals of a population because of geographical barrier is
 allopatric speciation
 parapatric speciation
 sympatric speciation
 peripatric speciation
- Ruggedness is a criterion used to define
 wetlands
 deserts
 mountains
 forests
- Reproductive isolation is the centerpiece of
 Typological Species Concept
 Ecological Species Concept
 Biological Species Concept
 Phylogenetic Species Concept
- Theft of biological materials including genetic materials through patenting is called
 bioprospecting
 biopiracy
 bioremediation
 bioturbation
- The WWF headquarter is in
 Switzerland
 New York
 London
 Paris
- Puna and Tepuis illustrate
 lowland vegetation
 tropical tree species
 wetland macrophytes
 mountain vegetation

10. The Cartagena Protocol deals with
 in-situ conservation measures
 international trade on endangered species
 ex-situ conservation measures
 biosafety with regard to LMOs
11. *Bothrops insularis* found in Iha da Queimada Grande illustrates
 endemic species invasive species
 keystone species flagship species
12. The scientific name of Indian cobra is *Naja naja*; therefore, this binomen is referred to as
 synonym tautonym homonym antonym
13. A Gersmehl diagram illustrates the
 storage and flow of nutrients between different ecosystems
 storage and flow of gases between different ecosystems
 storage and flow of pollutants between different ecosystems
 storage and flow of water between different ecosystems
14. The Velcro in clothes was inspired from the
 cotton jute burdock maize
15. Nepal lies in
 Neotropical realm Indo-Malayan realm
 Afrotropical realm Nearctic realm
16. Which of the following is false?
 Laurasia included the present day arctic region.
 Gondwana included the present day arctic region.
 Present day *Pinus* reflects Laurasian distribution.
 Present day Primates reflect Gondwanian distribution.

SECTION "B"

[4Q. × 0.5 = 2 marks]

Look at the following figures carefully and answer the questions:



17. Total species diversity present in each of the ecosystems represent the
 alpha diversity beta diversity gamma diversity
18. Difference in the number of species between two successive ecosystems represent the
 alpha diversity beta diversity gamma diversity

15 JUL 2024

19. The total species diversity of A, B and C represent
[] alpha diversity [] beta diversity [] gamma diversity
20. Which one of the following is a vector quantity?
[] alpha diversity [] beta diversity [] gamma diversity

SECTION "C"

[10 marks]

Fill in the blanks:

21. The wetlands of international importance are called _____.
22. The pre-historic landmasses formed from splitting of the Pangea are _____ and _____.
23. The full form of ITK is _____.
24. The acronym HIPPO stands for _____, _____, _____, _____ and _____.
25. Total elimination of a taxon from the earth is called _____.
26. Total number of ecosystems found in Nepal is _____.
27. Change in allele frequency in small populations due to chance factors is called _____.
28. The full form of ICZN is _____.
29. Similar names of taxa is referred to as _____.
30. The migration of flora and fauna between North America and South America in the distant past is referred to as the _____.
31. The degree to which species are confined to a certain area/region is called _____.
32. Bailey's hierarchical levels of ecosystem classification are _____, _____ and _____.
33. The bonds present between two adjacent nucleotides in a nucleic acid are the _____.

100-100

