

KATHMANDU UNIVERSITY
End Semester Examination
February/March, 2018

Marks Scored:

Level : B.Sc.

Year : II

Exam.Roll No. :

Time: 30 mins.

Course : ENVS 212

Semester: I

F.M. : 20

Registration No.:

Date

MAR 04 2018

SECTION "A"

[18 Q.×0.5=9 marks]

Choose and mark (X) against the correct answer:

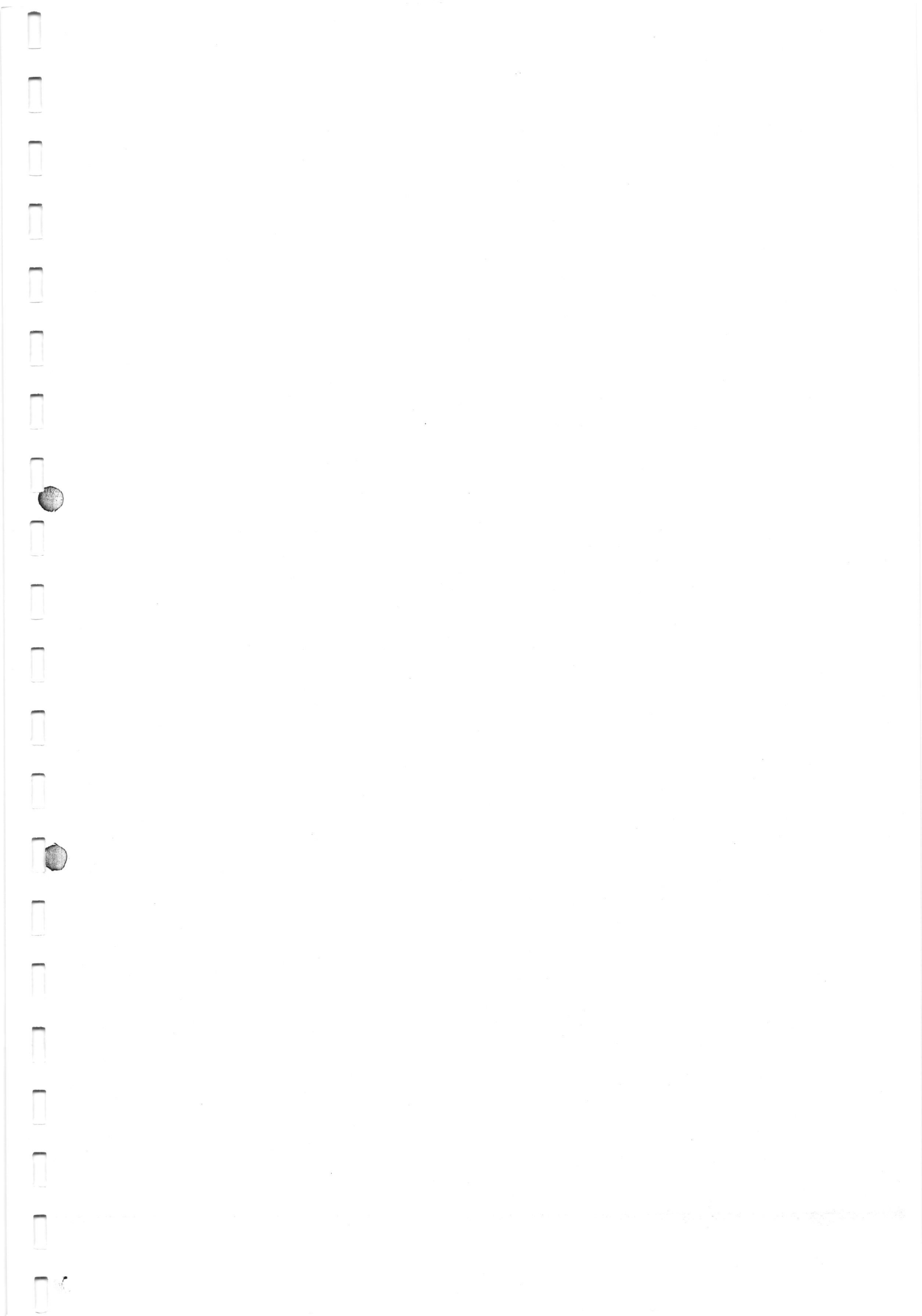
1. Restriction endonucleases cleave
 Hydrogen bonds between a purine and a pyrimidine
 Phosphodiester bonds between nucleotides
 Peptide bonds between the amino acids
 glycosidic bonds between glucose molecules
2. The scientific name of the Indian spectacled cobra is *Naja naja*. This binomen illustrates
 homonym tautonym basionym synonym
3. Which one of the following is not a megadiversity country?
 India South Africa Madagascar Sri Lanka
4. The 'Puna' illustrate
 high mountain herbs and shrubs high mountain stream fishes
 high mountain trees high mountain amphibians
5. Which of the following is considered as the 'haiku' among the multicellular animals?
 Annelids Nematodes Insects Spiders
6. Which of the following is not a living fossil?
 Latimeria chalamnae *Sphenodon punctatus*
 Ambyostoma tigrina *Gingko biloba*
7. Which of the following statement is wrong about Taq Pol?
 It is derived from *Thermas aquaticus*.
 It can withstand high temperature conditions
 It is a fatty acid.
 It is used in PCR
8. Which of the following statement is wrong?
 ICBN is independent of ICZN
 Quatromonials are characteristics of ICZN
 Tautonyms are allowed in ICZN
 Homonyms are not rejected by ICZN
9. The extinction of Genera and Family is referred to as
 extinction level 1 extinction level 2
 extinction level 3 extinction level 4

MAR 04 2018

SECTION "C"
[20 Q.×0.5=10 marks]

Fill in the blanks:

1. The WWF headquarter is in _____.
2. The total number of Aichi targets is _____.
3. Fungi Classes end with suffix _____.
4. _____ are also referred to as the "lungs of the earth".
5. Four categories of biodiversity centres are _____, _____, _____ and _____.
6. Three levels of mountain diversity are _____, _____ and _____.
7. Continents where present day rainforests are found are _____, _____ and _____.
8. The sixth extinction is also referred to as the _____.
9. The Cichlids in Lake Tanganyika illustrate _____ evolution.
10. A single physical example (or illustration) of an organism used to formally describe a species is referred to as a _____.
11. The smallest National Park in Nepal is _____.
12. The full form of CITES is _____.
13. The total number of ecoregions in the world is _____.



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Level : B.Sc.
Year : II
Time : 2 hrs. 30 mins.

Course : ENVS 212
Semester: I
F.M. : 55

SECTION "D"

[3 Q. × 7 = 21 marks]

Answer Any *THREE* of the following:

1. Define biodiversity. Describe the important ecosystem services of biodiversity citing appropriate examples.
2. Give an account of the different factors contributing to higher species diversity in the lower latitudes.
3. What are the different factors determining animal species sensitivity to fragmentation?
4. Describe the important features and significance of island biodiversity.

SECTION "E"

5. Differentiate between (any *FOUR*) [4Q.×2.5=10]
 - a. Extirpation and extermination
 - b. Biodiversity hotspots and megadiverse countries
 - c. Allopatric speciation and sympatric speciation
 - d. Centre of origin and centre of diversity
 - e. Endemic species and alien species
6. Assign the scientific and common names of any *ONE*. [8 Q.×0.5=4]

a. <i>oil producing plant</i>	e. <i>condiment</i>
b. <i>fruit</i>	f. <i>medicinal plant</i>
c. <i>cereal</i>	g. <i>timber yielding plant</i>
d. <i>pulse</i>	h. <i>fodder plant</i>
7. Give reasons why (any *FIVE*) [5Q.×2=10]
 - a. Soil fertility in tropical rainforests is poor.
 - b. Nepal cannot be considered as a megadiversity country despite harbouring rich biodiversity.
 - c. Amphibian population is dwindling.
 - d. It is important to maintain a minimum viable population of species.
 - e. Canopies are considered as one of the uncharted realms of biodiversity.
 - f. Lake Baikal is referred to as the "Galapagos of Russia"
8. Write short notes on (any *TWO*) [2Q×3=6]
 - a. Importance of genetic diversity.
 - b. Bioprospecting
 - c. Mass extinction
9. Explain the roles of any two national level biodiversity conservation organizations in Nepal. [4]

