

2023

M.Sc.

4th Semester Examination (CCAЕ)

ZOOLOGY

PAPER : ZOO-495B

(Practical)

(Ecology)

Full Marks : 50

Time : 4 hours

The figures in the right hand margin indicate marks.

Answer **all** questions.

1. Compute Sørensen's similarity index between each of the wetland habitats/alpha, beta, gamma diversities. based on presence/absence data given below. Mention the formula and comment on your result.

(2)

Species	Site 1	Site 2	Site 3
Ant	+		
Beetle	+		+
Collembola	+	+	
Dragonfly	+	+	+
Earthworm	+	+	
Firefly	+	+	+
Cladocera		+	
Housefly	+		+
Snail	+	+	
Spider	+		

$$8+2=10$$

2. From the given community map of a grassland, calculate the IVI & Shannon-Weiner diversity index providing respective formulae. Comment on your result. 4+4+2=10

3. Perform measuring the tree Height/DBH from a marked tree with an illustrated account of the method(s). 5+5=10

4. (i) Identify the following :- 2+2+2=5
- (i) Exotic earthworm
- (ii) Organic manures

(3)

(b) Estimate the water holding capacity of the given soil sample. 5

5. Laboratory Notebook. 5

6. Viva-voce. 5

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2023

M.Sc.

4th Semester Examination (CCAЕ)

ZOOLOGY

PAPER : ZOO-495D

(Practical)

(Special Paper : Parasitology)

Full Marks : 50

Time : 5 hours

The figures in the right-hand margin indicate marks.

Answer **all** questions.

1. Make a whole mount of the mosquito mouth parts. Draw, label and write the functions of each part. 8+4+4=16

(2)
{ OR }

Prepare smear from the sample/specimens provided, stain the smear for observation. Write the procedure. Comment on your observation.

10+3+3=16

2. Identify the supplied specimen (A, B, C, D). Write the genus characters and mention the systematic position.
Comment on the medical importance of the specimens. 4×4

3. Submission of prepared slides. 8

4. Laboratory Notebook. 5

5. Viva-voce. 5

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