

Navrachana University
 School of Liberal Studies and Education, B.Sc Program
 End-Semester Examination November 2017
 First Year and Semester I
 LS101: Evolutionary Biology, Taxonomy, Adaptation and Association

Date: 20/11/17

Marks: 40

Time: 10:30am – 12:30 pm

Important Instructions

1. All the Questions are Compulsory
2. Please read the questions carefully and answer accordingly
3. Draw a neat and labeled diagram wherever necessary

Q. 1. (a) Choose the correct answer from the given options: (1x5 = 5)

1. Who gave Mutation theory?

a) Sidney	c) Oparin
b) Miller	d) Hugo-de-vries
2. What is definition of mimicry?

a) a place where an animal lives	c) to live
b) defense of looking like another animal	d) to do something wild without fear
3. Who is known as father of taxonomy?

a) Linnaeus	c) Piny the Elder
b) Hippocrates	d) None
4. Ramesh comes across an animal having a stream-lined and slippery body. What is the habitat of the animal?

a) water	c) desert
b) grassland	d) mountain
5. Which of the following adaptations protects a stick insect from its enemies?

a) camouflage	c) migration
b) hibernation	d) moulting

Q. 1. (b) Answer in one sentence (1x8=8)

1. Why fossils are important to study evolution?
2. Who gave Binomial nomenclature?
3. Define "Artificial classification".
4. Who classified plants on basis of phylogenetic relationships?
5. What is difference between systematics and taxonomy?
6. Name the three chemical substances required to produce bioluminescence.
7. What is echolocation?
8. Do symbiosis and mutualism mean the same?

Q. 2. Answer in brief (Any 4) (2x4=8)

1. Do organisms adapt intentionally?
2. What are the drawbacks of Baptista's theory?
3. How do mimicry and camouflage help species survive?
4. What are the benefits of systematic?
5. Describe rules of Taxonomy

Q.3. Short notes on (Any 3)

(3x3=9)

1. Mutation theory
2. Aids of Systematics
3. Bioluminescence
4. Any two types of mimicry

Q.4. Answer in detail (Any 2)

(4x2=8)

1. Describe factors in modern concept of evolution.
2. Explain components of systematics
3. Describe the adaptations a plant and an animal will show when they will invade the terrestrial land.

Q.5. How can you relate the animal – animal associations with the society that you live in? Give atleast two associations.

(2)

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