

Navrachana University
 School of Liberal Studies and Education, B.Sc Program
 End-Semester Examination November 2017
 First Year and Semester I
 BO103: Evolutionary Biology and Plant Kingdom

Date: 24/11/2017

Marks: 40

Time: 10:30 am – 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:**(8 Marks)**

1. Who gave Mutation theory?

a) Sidney	c) Oparin
b) Miller	d) Hugo-de-vries
2. In which plant groups sporophyte is dependent on gametophyte

a) Vascular cryptogams	c) Phanerogms
b) Non-vascular cryptogams	d) None
3. Plant for which Hanumanji travelled Himalayas is a _____.

a) Bryophyte	c) Both A and B
b) Pteridophyte	d) None
4. Bryophyte multiply vegetatively by

a) Gemmae	c) Budding
b) Zoospores	d) Both A and B
5. Alga are classified into ____ classes by Fritsch.

a) 11	c) 9
b) 10	d) 7
6. Mushroom belongs to

a) Ascomycota	c) Zygomycota
b) Basidiomycota	d) None
7. Which gymnosperm is present in your campus

a) <i>Cycas</i>	c) <i>Pinus</i>
b) <i>Gnetum</i>	d) Both A and B
8. Whose classification do we refer for fungus

a) Smith	c) Alexopoulos
b) Takhtajan	d) None of above

Q. 1. (b) Answer in one sentence**(8 Marks)**

1. Why fossils are important to study evolution?
2. What is sorus?
3. Why bryophytes are called amphibians of plant kingdom?
4. Why gymnosperm and angiosperm are known as "Phanerogams"?
5. Write down major classes of Gymnosperms.
6. Define "Pyrenoids".
7. Which alga has oil as storage product?
8. Which important property of bryophyte helps them survive desiccation period?

Q. 2. Answer in brief (Any 4)

(8 Marks)

1. What is Germplasm theory?
2. What are the drawbacks of Baptista's theory?
3. Classify Archeigoniates.
4. Draw the life cycle of Pteridophyte.
5. Which sexual spores are prepared in fungi?

Q.3. Short notes on (Any 3)

(6 Marks)

1. Stele in vascular cryptogams
2. Adaptations of members of archegoniate
3. Any one Life cycles of algae

Q.4. Answer in detail (Any 2)

(8 Marks)

1. Describe salient features of Seedless phanerogams.
2. Describe salient features of Non-vascular cryptogams
3. Explain synthetic theory of evolution.

Q.5. What would happen to mankind if the bryophytes did not appear in plant kingdom at all?

(2 Marks)

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