الفرقة الثانية

Final exam. (2016-2017), Phycology (273N)	Faculty of Science , Assiutity university
Summer course ,Time allowed 2 hours	Botany and Microbiology Department

Answer the following questions

Question no (1):Write (Yes) or (No) in the front of each sentence from the following and correct the wrong one : (20 marks)

1	*Oscillatoria* sp. are filamentous without heterocyst, while *Anabaena* sp. consider as filamentous with basal heterocyst.	(
2	Photosynthetic product of *Nostoc* sp. Is glycogen	(
3	*Chrococcus* sp. reproduce by fragment of the filamentous	(
4	*Merismopedia* sp.belonges to Chroococcales but Anabaena to Nostocales	(
5	False branch of *Scytonema* sp. occur by formation of separation disc only	(
6	Algae is a collective term of all those chlorophyll bearing organism which are thalloid	(
7	Flagella are completely wanting (absent) in cyanophyta.	(
8	Biflagellate or quadriflagellate zoospore are types of *Cladophera* sp. asexual zoospore	(
9	The symbiotic partnership of blue green algae and fungi are well known as lichens.	(
10	*Euglena* sp reproduce by the breaking up of the trichome into hormogonia	(
11	The luxuriant growth of plankton may lead to death of fish	(
12	The zygote is the only diploid phase in the life cycle of *Chara.*	(
13	*Oscillatoria sp.* reproduces by vegetative and sexual methods only,asexual reproduction is entirely lacking.	(
14	Charales character by enclosure of the antheridia and oogonia by jackets of sterile cells	(
15	*Microcystis*, *Anabaena*, *Gloeotrichia* sp .are reported to produce toxins	(
16	The reserve food material in Cyanophyta is oil and chrysolaminarin	(

17	*Codium* sp. tends to have Dichotomous Branching	(
19	Species of Bacillariophyta do not form separating walls and the entire organism is coenocytic	(
20	*Spirogyra* sp. is macroscopic non-motile coenobium consisting of a network of pentagons or hexagons cells	(
21	*Chlorella* and *Chlorococcum* sp. are the most simple forms belonges to Chlorococcales	(

Question no (2) :Discus with drawing if it possible ,Three only of the following

(30 marks)

1. **Diatomes live cycle**
2. **Isomorphic Alternation of Generations in *ulva* sp.**
3. **Longitudinal binary fission in *Euglena* sp.**
4. **General character of cyanophyta and its effinities with bacteria**

Goodluck

Dr.: Awatief F. hifney

Assiut University, Faculty of Science, Botany & Microbiology Department		جامعة أسيوط ـ كلية العلوم قسم النبات والميكروبيولوجي
Summer Term Exam, August 2017 Plant Morphology and Anatomy (221B) Second level Students, Faculty of science		Exam Date: 25/8/2017. Time allowed: 2 hours. Total Marks: 50 Marks.

Firstly: Answer the following questions:

Q1: Write in table the functions of each of the following: (4 Marks)

1- Palisade tissue. 2- Hydathode. 3- Osteosclerid.
4-Trichomes. 5- Laticiferous cells. 6- Parenchyma tissue.
7- Ground meristem. 8- Sieve plate. 9- Micropyle.

Q2: Give reasons for each of the following: (6 Marks)

1- Collenchyma support fast growing organs of angiosperms.

2- A hollow hearted plant (in which heart wood is destroyed) continuous to live.

3- In some plants the leaves are adapted to catch and digest insects.

4- Inability of the viable seeds to germinate under suitable conditions.

5- Modification of stem in some plants into thorn (spiny stem) and phylloclade (leafy stem).

6- Gymnospermic xylem is considered non porous wood.

7- Presence of veins and veinlets in the plant leaves.

Q3: Give in table one difference at least with drawing if possible between each of the following: (5 Marks)

1- Spring wood and autumn wood. 2- Gramine stoma and universal stoma.

3- Radial vascular bundles and conjoint bundles. 4- Emergencies and hairs.

5- Amphicribal vascular bundles and amphivasal bundles. 6- Fibers and sclereids.

Q4: Draw with labelled diagrams each of the following: (5 Marks)

1- Any three types of epidermal outgrowths.

2- Any three types of a simple unspecialized tissue.

3- Any three types of a simple tissue of secondary origin help in support of woody plants.

4- Diagrammatic Transverse section in young dicot. root.

5- Pattern of lignification in xylem vessels.

6- Two types of resin and oil glands.

Secondly: Answer SIX ONLY of the following: (5 Marks each)

(1) Differentiate between heart wood and sap wood? Which of the two is more durable? Why? List the changes that occur during transformation? What do u know about tyloses?

(2) Define bark? Name two products obtained from bark, mention their uses? What happens if bark is removed? Why?

(3) What are the various criteria on the basis of which meristems can be classified? List the characteristic features of it? Name the locations in the plant body you can find meristems?

(4) Which of the secondary tissue are produced by the activity of vascular cambium? Describe with the help of diagrams the process of interxylary phloem formation?

(5) Describe the structure of a seed? Differentiate between endospermic and exendospermic seeds.

(6) Define venation? Describe with drawing different types of venation found in angiospermic leaves

(7) Classify buds depending up on their location and nature?

(8) A) What are the two major types of roots? How do they differ from one another? Name and draw two types of each one?
B) Name two compounds secreted by stinging hair?

(9) What is the function of vascular tissue system? Write an account of adaptation of structure to function of any tissue of this system?

"Good Luck"

Prof. M. A. Elnagdy

Assiut University
Faculty of Science
Botany and Microbiology Department

Date: 21-8- 2017
Time allowed: 2 hours
Time: 9-11 am

Summer Semester final Examination

Subject: Course # 271 B — Bacteriology
Students: Microbiology, Chemistry and Microbiology). — Total mark: 50

General Instructions:-Attempt any **FOUR QUESTIONS**. Write the answer in the University Examination Answer Book provided. **Use well labeled diagrams where appropriate.**

1. a. List the location, composition and function of each of the following bacterial structures: (6 Marks).

   i. Fimbriae
   ii. Sex pilus
   iii. Mesosomes
   iv. Ribosome
   v. Gas vesicles
   vi. Plasmids

   b. Write an account on sulfa drug and their effects on bacterial growth (6.5 Marks)

2. a. Discuss the classification of bacteria according to oxygen requirements and chemical mechanism of oxygen toxicity in obligate anaerobes. (6.5 Marks)

   b. Role of bacteriophage in genetic recombination in bacteria. (6.0 Marks)

3. a. Explain the dynamics of bacterial growth curve. (6.5 Marks)

   b. Distinguish between the following pairs of terms: (6 Mark)

   i. Antiseptic and Disinfectant
   ii. Death Point and Thermal Death Time
   iii. Ionizing radiation and Nonionizing radiation

4. Write an account in each of the following:
   a. Chemical structure of cell wall in Gram positive and Gram negative bacteria and their response to Gram staining. (6.5 Marks)
   b. Ultra structure of bacterial flagellum. (6 Marks)

5. a. Explain the effect of water activity (Aw) on bacterial growth. (6 Marks)
   b. Describe the process of endospore formation in family bacillaceae. (6.5 Marks)

Good luck

Professor Dr. Mohamed Hemida Abd-Alla

Assiut University, Faculty of Science Botany & Microbiology Department		جامعة أسيوط ــ كلية العلوم قسم النبات والميكروبيولوجي
Summer Term Exam, August 2017 Systematic Mycology 1, (262B) Second level Students, Faculty of science		Exam Date: 28/8/2017. Time allowed: 2 hours. Total Marks: 50 Marks.

Firstly: Answer the following questions:

Q1: Give in table one difference at least with drawing if possible between each of the following: (4Marks)

1- Holocarpic fungus and Eucarpic.
2- Monocentric chytrid and polycentric.
3- Homothallic fungus and Heterothallic.
4- Slime moulds and true fungi.
5- Order Saprolegniales and Leptomitales.

Q2: Draw with labelled diagrams each of the following: (6 Marks)

1- Gametangial Copulation as a mode of plasmagamy in fungi .
2- Various types of sexual spores of Eumycota.
3- Any two types of Ascomata
4- Any two types of Conidiomata.

Q3: Name and discribe by drawing the causal organism of the following diseases : (8 Marks)

1- White blister of Cruciferae .
2- Late blight of potato.
3- Downy mildews of Onion.
4- Damping off of seedling .
5- Salmon.

- Describe by drawing asexual reproduction of any causal organism of the above.

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Secondly: Answer Four ONLY of the following: (8 Marks for each)

1- How can genus *Allomyces* be classified? Write short notes with drawing on its gametothallus ? Comment on its plasmogamy.

2- A- Give an illustrated account of zoospores behaviour in Saprolegniaceous fungi?

b- write short notes with drawing on fragmentation as asexual reprodnction in fungi .

3- Define flagellation? Write short notes with drawing on types and importance of flagella in classification of Mastigomycotina

4- A- How can differentiated between *pythium* and *phytophthora* with regard to sporangial shape , zoospores differentiation and mode of infection.

b- write short notes with drawing on behaviour of sporangia in family Peronosporaceae , giving examples

5- A- On the basis of nutrition name and discuss various categories of fungi , giving examples .

b- How can class Oomycetes be classified? Showing the evolutionary critaria in this class .

6- Classify order Peronosporales, showing the basis of classification? Write an account of evolutionary concept of this order comparing with order Saprolegniales .

"Good Luck"

Prof. M.A. Elnagdy