

Benha university

Time: one hr.

Faculty of Science

Code:100 B

Botany Department



General Botany exam for 1st level students (May 2017)

Answer the following questions:

The 1st question: Put (√) or (X): (24 marks)

- 1- Cyanobacteria are prokaryotic. ()
- 2- *Fucus* thallus contains flagella. ()
- 3- In tetracocci bacteria the cell divides in one plane. ()
- 4- *Albugo* is saprophytic organism. ()
- 5- Flagella are composed of protein called flagellin. ()
- 6- Algae are photosynthetic organisms. ()
- 7- Anaerobes include the bacteria which live in complete absence of oxygen.()
- 8- *Diatoms* are motile by flagella. ()
- 9- Virus are reproducing only within and living cells. ()
- 10- Virus that infects bacteria is mycophage. ()
- 11- Deutromycetes lack sexual reproduction. ()
- 12- Zygomycetes comprising fungi consisting of non-septate mycelium()
- 13- The stored food material in fungi is starch ()
- 14- *Pandorina* is more advanced than *Volvox*. ()
- 15- Sexual reproduction in ascomycetes produces endogenous ascospores.()
- 16- *Rhizopus* is a parasitic fungus. ()
- 17- bacteria and fungi maintain soil fertility. ()
- 18- Bacteria reproduce by binary fission. ()
- 19- Kingdom Protista include eukaryotic organisms. ()
- 20- Most fungi are able to grow in high sugar and salt concentration. ()

باقي الأسئلة بالخلف

- 21- Virus has the ability to multiply outside the cell. ()
- 22- All bacteria have capsule. ()
- 23- Fungi are autotrophs. ()
- 24- Several antibiotics are isolated from bacteria and fungi. ()

The 2nd question: Choose the correct answer: (24 marks)

- 1- Actinomycetes are (filamentous- unicellular) bacteria.
- 2- In sarcina the division of cell is in (one- two-three) planes.
- 3- *Agaricus* is a (saprophytic- parasitic) fungus.
- 4- (Aerobes– Facultative aerobes – Anaerobes) are the groups of bacteria which require free supply of oxygen for growth.
- 5- Most of the (yeasts – algae – viruses) multiply vegetatively either by budding or by fission.
- 6- Viruses are obligate (extracellular- intracellular) parasites.
- 7- Virus contains (both DNA and RNA together - DNA or RNA).
- 8- *Chlamydomonas* is (filamentous- unicellular) algae.
- 9- (*Fucus- Nostoc- Spirogyra*) are related to division phaeophyta.
- 10- *Pandorina* is (unicellular – colonial) alga.
- 11- (Viruses- algae-fungi) can pass through bacterial filters.
- 12- The cell walls of (*Fucus - Diatoms-* bacteria) are silicified and show characteristics secondary structures.
- 13- Yeasts are (Aerobes- Anaerobes).
- 14- (A monotrichous – peritrichous – lophotrichous) bacterium possesses a single flagellum.
- 15-The (capsid- envelope) is composed of many identical subunits called capsomeres.
- 16- (Plasmogamy – Karyogamy – Meiosis) consists in the fusion of two nuclei.
- 17- (Sporangiospores – Conidiospores –Basidiospores) are produced exogenously on the outer surface of basidia.

- 18- The filament of *Nostoc* is (branched – unbranched).
- 19-Heterotrophs which live in association with other organisms called (saprophytes – parasites – symbionts).
- 20- The bacterial plasma membrane is composed of (cellulose - peptidoglycan – phospholipid).
- 21- Algae are (prokaryotes-eukaryotes).
- 22- The chloroplast of *Spirogyra* takes the form of (cup- spiral).
- 23-(Photosynthetic-Chemosynthetic) bacteria can synthesis carbohydrates from atmospheric CO_2 in the presence of sunlight.
- 24-In the end of (lytic cycle- lysogeny) the host cell bursts.

With my Best wishes

د. صباح ابو المعاطي

Benha university

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نموذج اجابة مادة نبات عام (١) لطلبة الساعات المعتمدة ٢٠١٧/٦/١٣

General Botany exam for 1st level students (May 2017)

Answer the following questions:

The 1st question: Put (✓) or (X): (24 degree)

- 1- Cyanobacteria are prokaryotic. (✓)
- 2- *Fucus* thallus contains flagella. (X)
- 3- In tetracocci bacteria the cell divides in one plane. (X)
- 4- *Albugo* is saprophytic organism. (X)
- 5- Flagella are composed of protein called flagellin. (✓)
- 6- Algae are photosynthetic organisms. (✓)
- 7- Anaerobes include the bacteria which live in complete absence of oxygen(✓)
- 8- *Diatoms* are motile by flagella. (X)
- 9- Virus are reproducing only within and living cells. (✓)
- 10- Virus that infects bacteria is mycophage. (X)
- 11- Deutromycetes lack sexual reproduction. (✓)
- 12- Zygomycetes comprising fungi consisting of nonseptate mycelium(✓)
- 13- The stored food material in fungi is starch (X)
- 14- *Pandorina* is more advanced than *Volvox*. (X)
- 15- Sexual reproduction in ascomycetes produces endogenous ascospores.(✓)
- 16- *Rhizopus* is a parasitic fungus. (X)
- 17- Bacteria and fungi maintain soil fertility. (✓)
- 18- Bacteria reproduce by binary fission. (✓)
- 19- Kingdom Monera include eukaryotic organisms. (X)

- 20- Most fungi are able to grow in high sugar and salt concentration. (√)
- 21- Virus has the ability to multiply outside the cell. (X)
- 22- All bacteria have capsule. (X)
- 23- Fungi are autotrophs. (X)
- 24- Several antibiotics are isolated from bacteria and fungi. (√)

The 2nd question: Choose the correct answer: (24 degree)

- 1- Actinomycetes are **filamentous** bacteria.
- 2- In sarcina the division of cell is in **three** planes.
- 3- *Agaricus* is a **saprophytic** fungus.
- 4- **Aerobes** are the groups of bacteria which require free supply of oxygen for growth.
- 5- Most of the **yeasts** multiply vegetatively either by budding or by fission.
- 6- Viruses are obligate **intacellular** parasites.
- 7- Virus contains **DNA or RNA**.
- 8- *Chlamydomonas* is **unicellular** alga.
- 9- *Fucus* is related to division phaeophyta.
- 10- *Pandorina* is **colonial** alga.
- 11- **Viruses** can pass through bacterial filters.
- 12- The cell walls of *Diatoms* are silicified and show characteristics secondary structures.
- 13- Yeasts are **Anaerobes**.
- 14- A **monotrichous** bacterium possesses a single flagellum.
- 15- The **capsid** is composed of many identical subunits called capsomeres.
- 16- **Karyogamy** consists in the fusion of two nuclei.
- 17- **Basidiospores** are produced exogenously on the outer surface of basidia.
- 18- The filament of *Nostoc* is **unbranched**.
- 19- Heterotrophs which live in association with other organisms called **symbionts**.

20- The bacterial plasma membrane is composed of **phospholipid**.

21- Algae are **eukaryotes**.

22- The chloroplast of *Spirogyra* takes the form of **cup**.

23-**Photosynthetic** bacteria can synthesis carbohydrates from atmospheric Co₂ in the presence of sunlight.

24-In the end of **lytic cycle** the host cell bursts.

أستاذ المادة/ د. صباح أبو المعاطي أحمد