

KATHMANDU UNIVERSITY  
End Semester Examination [C]  
April/May 2023

Marks Scored:

Level : B.Pharm.  
Year : I

Course : BIOL 102  
Semester : II

Exam Roll No.:

Time: 30 mins.

F. M. : 20

Registration No.:

Date

28 APR 2023

SECTION "A"

[20Q. × 1 = 20 marks]

**Encircle the most appropriate alternative from each set of choices.**

- Which one is not eukaryotic?
  - Spirogyra
  - Amoeba
  - Plasmodium
  - Blue-green algae
- In bacteria which one is absent:
  - Enclosed nucleus
  - Cell wall
  - Cytoplasm
  - Ribosomes
- Select correct statement regarding Peptidoglycans:
  - It is absent in bacteria
  - It is thick in gram-negative bacteria
  - It is thick in gram-positive bacteria
  - It is present inside the cell membrane
- Select the gram-negative bacteria
  - Staphylococcus aureus
  - Bacillus anthracis
  - Staphylococcus pneumoniae
  - Helicobacter pylori
- Exotoxins are
  - Proteins
  - Polysaccharide
  - Steroids
  - Lipids
- Outer membrane of nuclear membrane continues to form:
  - Golgi apparatus
  - Endoplasmic reticulum
  - Vacuoles
  - Lysosomes
- Glycolysis takes place in:
  - Nucleus
  - Cytoplasm
  - Mitochondria
  - Nucleoplasm
- How many ATP is/are produced in the electron transport chain reaction from each molecule of NADH?
  - 1
  - 2
  - 3
  - 4
- Select the odd one
  - TCA
  - Citric Acid cycle
  - Glycolysis
  - Krebs Cycle

10. Which is not the content of chloroplast?  
a. Grana                      b. Thylakoid                      c. Stroma                      d. chromosome
11. Select the semi-autonomous organelles in animal:  
a. Mitochondria                      c. Endoplasmic reticulum  
b. Chloroplast                      d. Golgi apparatus
12. Which one is associated with chlorophyll  
a. Mg                      b. Ca                      c. Fe                      d. K
13. Subunit of 70S ribosomes are:  
a. 30S and 50S                      b. 20S and 50S  
a. 40S and 50S                      c. 30S and 40S
14. In solenoid model of packing of DNA, how many nucleosomes are there in a turn?  
a. 4                      b. 6                      c. 8                      d. 10
15. Actin is the structural unit of  
a. Microfilament                      c. microtubule  
b. Cell membrane                      d. intermediate filament
16. Ribosome is not present in.  
a. Rough endoplasmic reticulum                      c. Mitochondria  
b. Chloroplast                      d. Vacuole
17. How many pair of centrioles are there in anaphase stage of mitosis.  
a. 6                      b. 4                      c. 1                      d. 2
18. Which type of arrangement of microtubule is found in the **tail (Axial filament) of sperm?**  
a. 9 + 0                      b. 9 + 1                      c. 9 + 2                      d. 9 + 3
19. Which is the smallest part of chromosome  
a. Chromatin                      b. Solenoid                      c. Nucleosome                      d. DNA
20. Which one is not the sexual reproduction of prokaryotes  
a. Binary fission                      c. Transformation  
b. Conjugation                      d. Transduction