



**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA  
SCHOOL OF LIFE SCIENCES  
DEPARTMENT OF MICROBIOLOGY**

**FIRST SEMESTER EXAMINATION 2016/2017 SESSION**

**COURSE CODE: (MCB 221)**

**COURSE TITLE: UNITS INTRODUCTION TO MICROBIOLOGY II (3 UNITS)**

**CLASS: 200 LEVEL**

**TIME: 30 mins**

**INSTRUCTIONS:** Answer All Questions.

**Matriculation**

**Number:**

**Section A**

Name 1-13 and provide a suitable title to Figure 1 and 2.

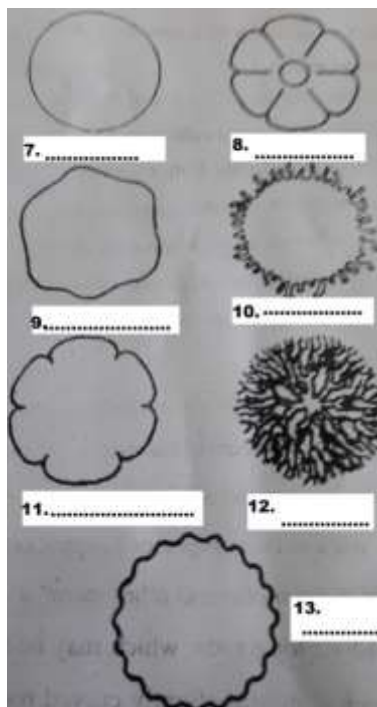
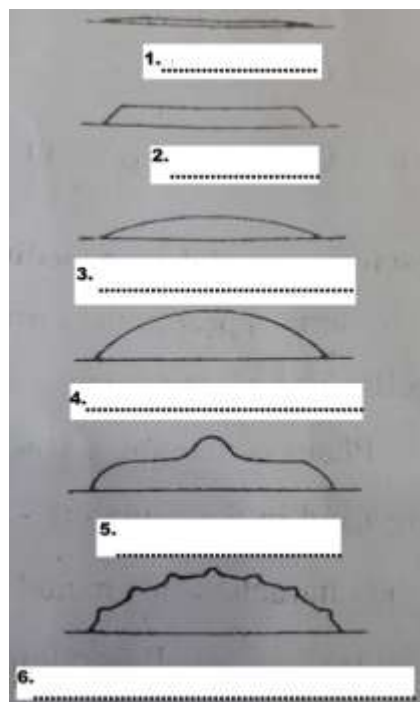


Figure 1 (14)..... Figure 2 (15).....

Fill in the correct answers in the blank spaces provided (16-20)

Some varieties of culture media use in Microbiology Laboratory include (16)

\_\_\_\_\_ (17) \_\_\_\_\_ (18)

\_\_\_\_\_ (19) \_\_\_\_\_ and (20) \_\_\_\_\_

## SECTION B

Name; ..... Mat No.;

.....

INSTRUCTIONS; Answer all questions Time Allowed: **45**  
**Minutes**

Match the choices from column B with the appropriate statements in column A

### Column A

1. Dye repelled by bacteria technique
2. Iodine used
3. Developed in 1880s technique
4. Carbon fuchsin used technique
5. Uses alcohol decolorizer
6. Microorganisms outlined in stain
7. Basic dye used
8. Acid – alcohol decolorizer
9. All bacteria divided to two groups
10. Mycobacterium detected

### Column B

- (a) Gram stain
- (b) Acid-fast technique
- (c) Simple stain
- (d) Negative stain

Completion; Add the word or words that best complete each of the following statements

11. The unit most often used to measure the diameter of viruses is the \_\_\_\_\_
12. Whereas a simple microscope has a single lens, a compound microscope has \_\_\_\_\_
13. The ability of a microscope to distinguish two closely related points is called \_\_\_\_\_
14. A \_\_\_\_\_ meter is equivalent to \_\_\_\_\_ micrometers that number \_\_\_\_\_
15. The part of the microscope known as the condenser consists of a series of \_\_\_\_\_
16. Among the microorganisms most often studied with the phase contrast microscope are the \_\_\_\_\_
17. Two types of electron microscopes are the transmission electron microscope and the \_\_\_\_\_
18. Bacteria and microorganisms must be stained before microscopy because their cytoplasm is usually \_\_\_\_\_
19. Those stains that carry a positive charge are referred to as \_\_\_\_\_
20. Among the smallest bacteria are three groups known as rickettsiae, chlamydiae and \_\_\_\_\_

## SECTION C

**INSTRUCTION: Answer all Questions**

**MATRIC. NO.:**

**Time Allowed: 1Hr**

Define the following:

1. Ecology:-----  
-----  
-----

2. Niche:-----  
-----

3. Habitat:-----  
-----

4. Limiting factors-----  
-----

-----  
-----  
5. Extremophiles species:-----  
-----  
-----

-----  
➤ What is the role of the following organisms in an ecosystem:

6.Producer:-----  
-----  
-----

7.herbivore:-----  
-----  
-----

-----8.carnivore:-----  
-----  
-----

-----9.omnivore:-----  
-----  
-----

10.decomposer:-----  
-----  
-----

11.How many trophic levels has this food chain:→

Goat

Man

→Grass

➤ List three elements of aseptic techniques: (12)

(13)

(14)

15. When several food chains overlap and intersect is called -----  
-----

➤ Briefly describe the following relationships

16. predator-prey:-----  
-----  
-----

17. parasite-host: -----  
-----  
-----

18. mutualism: -----  
-----  
-----

19. commensalism: -----  
-----  
-----

20. cooperation: -----  
-----  
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