

Note: must have units on measurements

Station 1

Questions 1-4.

Objective Lens	Low Power	Medium Power	High Power
Total magnification	40X	100X	400X
Field of View Diameter (mm)	~ 4.5	1.7	1.125 (1.1)
Field of View Diameter (µm)	4,500	1,700	1,125 (1,100)

5. 25-100 µm
6. GRAM-negative coccus
7. GRAM-positive (staphylo) coccus
8. GRAM-positive (strepto) bacillus
9. GRAM-negative bacillus

} must have both
 GRAM-neg/GRAM-pos
AND
 shape

10. PINK = GRAM-neg; cell walls have little peptidoglycan + an outer membrane
Purple = GRAM-pos; cell walls are thick, lots of peptidoglycan

Antibiotic	Susceptibility (R, I, or S)
Amoxicillin (AMC)	R
Cephalothin (CF)	S
Chloramphenicol (C)	S
Ciprofloxacin (CIP)	S
Clindamycin (CC)	R
Erythromycin (E)	R
Oxacillin (OX)	R
Penicillin G (P)	R
Streptomycin (S)	S
Tetracycline (TE)	I
Tobramycin (TM)	S
Trimethoprim sulfa (SXT)	S

11. VANOMYCIN

Station 2

1. eyepiece tube
2. Nosepiece OR objective turret
3. objective lens
4. Iris diaphragm
5. ~~illuminator~~
6. eyepiece OR ocular lens
7. Arm
8. stage
9. COARSE adjustment
10. FINE adjustment
11. Base
12. ocular lens OR eyepiece
13. 20X
14. $5.3 \times 10^4 \mu m$
15. $3.2 \times 10^4 \mu m$
16. $2.0 \times 10^4 \mu m$
17. $1.8 \times 10^{-2} \mu m$
18. $144 \mu m$ OR $1.44 \times 10^2 \mu m$
19. $2.55 \times 10^2 \mu m$
20. 3
21. D

6 & 12 must be different

Station 4

1. B
2. D
3. A
4. C
5. D
6. A
7. B
8. A
9. B
10. A
11. A
12. B
13. B
14. Endospores
15. D
16. C
17. I
18. making bread / brewing beer
19. A

ANY ORDER

11. Pseudopodia
12. Cilia
13. Flagella
14. Virus
15. D
16. D
17. Ebola virus
18. D
19. D
20. AFRICA
21. D
22. UNKNOWN
23. D
24. D

Station 3

1. C
2. B
3. G
4. C
5. B
6. C
7. B
8. Giardia
9. G
10. B
11. D

Station 5

1. stationary phase
2. Exponential " "
3. Lag Phase
4. Death Phase
5. Binary fission
6. decreasing food
7. increasing waste
8. lack of space
9. 6.87×10^9
10. methicillin resistant Staph. aureus

3 reasons bacterial growth flattens out

ANY ORDER

Station 6

1. D
2. C
3. C
4. C
5. B
6. B
7. F
8. D
9. B
10. C
11. COCCUS
12. Spillum
13. Bacilli
14. F
15. T
16. F
17. T
18. F
19. F
20. T
21. T

Station 6

- 22. F
- 23. T
- 24. T
- 25. F
- 26. T
- 27. F
- 28. F
- 29. T

- 5. F
- 6. I
- 7. G
- 8. B
- 9. H
- 10. D
- 11. H
- 12. C
- 13. I
- 14. E
- 15. B
- 16. F
- 17. G
- 18. A
- 19. B AND E
- 20. A, F, G, H
- 21. C
- 22. D

Station 7

- 1. B
- 2. Pasturization
- 3. D
- 4. Listeria monocytogenes
- 5. D
- 6. Salmonella
- 7. E
- 8. True
- 9. Lactobacillus
- 10. yogurt, sauerkraut, bread, wine, beer
- 11. kimchi, cheeses
- 12. D
- 13. Increases surface area
- 14. distributes microbes
- 15. A
- 16. D
- 17. B
- 18. Ultra high temp. processing
- 19. ERGOT
- 20. Rye

2
any
order
↑

Station 8

- 1. A
- 2. D
- 3. C
- 4. E