Biology 2201
Common Exam
Sample Test Answer Sheet

Part 1: Multiple Choice

1.	C	26.	B	51.	A
2.	C	27.	A	52.	D
3.	D	28.	D	53.	D
4.	A	29.	B	54.	B
5.	B	30.	B	55.	C
6.	D	31.	B	56.	A
7.	D	32.	B	57.	A
8.	C	33.	D	58.	B
9.	C	34.	B	59.	C
10.	B	35.	C	60.	D
11.	A	36.	A	61.	B
12.	D	37.	C	62.	C
13.	D	38.	D	63.	B
14.	A	39.	C	64.	C
15.	D	40.	D	65.	A
16.	C	41.	C	66.	D
17.	D	42.	B	67.	B
18.	A	43.	C	68.	B
19.	B	44.	D	69.	B
20.	D	45.	C	70.	B
21.	D	46.	A	71.	B
22.	C	47.	D	72.	A
23.	B	48.	C	73.	D
24.	C	49.	D	74.	B
25.	A	50.	A	75.	B

Part 2: Questions

1. - Needam's experiment supports abiogenesis because microorganisms were found from a Source without living organisms.
   - Spallanzani's experiment supports biogenesis because no life was found after the experiment

2.

Harmful	Benificial
-Heart disease risk	-Part of lipid bilayer
-Stroke	-Also, part of cell membrane to aid
-High blood pressure	in fluidity

3. **Answer:** 0.03mm

$$F.O.V_{high} = F.O.V_{low} \text{ x } \frac{mag_{low}}{mag_{high}} \quad specimen \text{ size} = \frac{FOV}{\# fittingacross}$$

$$F.O.V_{high} = 5mm \text{ x } \frac{60x}{750x} \quad specimen \text{ size} = \frac{0.4mm}{12}$$

$$F.O.V_{high} = 0.4mm \quad specimen \text{ size} = 0.03mm$$

Marking Scheme:

- Student has to calculate field of view at high power (1.5 mark)

  o ½ mark for magnification calculation

  o 1 mark for field of view calculation

- Student has to calculate the specimen size. (0.5 mark)

4. -Cnidarians are strictly aquatic
   -Arthropods are found in all environments
   -Exoskeleton aids adaptation
   -Cnidaria's soft bodied with 2 germ layers
   -Arthropods have a well developed nervous system
   -Cnidarians have a very porly developed nervous system
   -Arthropods- ceolomate
   -Cnidarian – acoelomate

5. - Change from poikolotherm to homeotherm
   - Change in body size trends, small to large
   - Change in environment, water to land

6. a). 1 and 3. Students state that the sequences of the correct pairing has the fewest differences (most similarities) (1 mark)

   b) Comparative biochemistry (1 mark)

7. Veins – valves to prevent the backflow of blood which could occur as a result of the reduced blood pressure. Not necessary in arteries.
   Arteries – thick, elastic walls to allow for the high pressure occurring during heart contraction, maintenance of blood pressure. (2 marks)

8. Leucocytes are non-specific phagocytic cells that destroy non-self foreign matter. A reduction in these cells compromises the body's ability to fight infections. (2 marks)

9. -Training will increase lung capacity which maximizes gas exchange providing more oxygen for energy release (respiration)
    -Improved heart function and blood flow will deliver nutrients (glucose) and oxygen to cells more efficiently (2 marks)

10. Gallbladder stores bile
    Bile functions to break up fat globules for further digestion
    Removal of gallbladder leads to decreased stored bile
    Thus, patient can eat less lipids (2 marks)

11. No – limited resources like space, food
    - Increase in disease, war
    - Increase in pollution

    Yes – technology will continue to push the limits
    - New resources can yet be found

12. One species will out compete the other and its #'s will decline. The dominant species will maintain its #'s.
    Alternate: One species may feed on the other. Thus, one could rise as the other falls.
    Alternate: Rapidly diminished resources result in shorter growth phase lower the population size and carrying capacity.