**Review for Test #1**

**Terms to Know:**

|  |  |
| --- | --- |
| spontaneous generation  abiogenesis  biogenesis  Redi  Needham  Spallanzani  Pasteur  Van Leeuwenhoek  Hooke  Schleiden | Virchow  Schwann  control  manipulated variable  responding variable  microscope parts  prokaryotic  eukaryotic  cell theory |

**Review Questions:**

1. Pg 31 # 4-7, 15,16,18,19
2. Pg 32# 26,27,31
3. Pg 197#3,11,12
4. Review all notes and the following pages from the textbook:
   1. Pg 8-12 (Abiogensis, Experimental Design)
   2. Pg 25,26,1070 (Microscope)
   3. Pg 169-173 (Cell Theory, Prokaryotes, Eukaryotes)

**Review for Test #1:** **Answer Key**

**Page. 31**

4. C

5. A

6. B

7. B

15. Scientists should test only one variable at a time so that only one observable factor affects the observed results of the experiment.

16. A variable is a factor in an experiment that can change. A control is a factor in an experiment that is kept unchanged.

18. Redi used jars, meat, and gauze. The gauze was important because it allowed air into the flask but did not allow the flies to land onto the meat.

19. Whether microorganisms would grow in meat broth that was boiled and then left in containers.

**p. 32**

26. The magnification is greater with an electron microscope, but an electron microscope cannot be used to study organisms while they are alive. A light microscope produces magnified images by focusing a readily available source – visible light, and can be used to study living organisms.

27. The strengths of the biogenesis theory include the fact that it is supported by numerous experiments and accounts for all known observations. At this time, there are no known weaknesses.

31. The other key variables may be responsible for the observed outcome of the experiment.

**p. 197**

3. B

11.

|  |  |
| --- | --- |
| Robert Hooke | Observed cork slices and named them “cells” |
| Matthias Schleiden | Concluded that all plants are made of cells. |
| Theodor Schwann | Concluded that all animals are made of cells. |
| Rudolf Virchow | Concluded that all cells come from preexisting cells. |

12. Both prokaryotic and eukaryotic cells have two characteristics in common: they are surrounded by a cell membrane, and they contain DNA. Prokaryotes are generally smaller and simpler, and they lack a nucleus. Eukaryotic cells generally contain dozens of structures (organelles) and have a true (distinct) nucleus.