Microbiology for nursing
Practice Exam #1

1. **Fill in the missing information on a table comparing the 5 different kingdoms.**

Kingdom	Prokaryotic/ Eukaryotic	Sex Cycle	Cells in Organism	Autotrophic/ Heterotrophic	Cell Wall	# cells in gametangia

2. **Contrast the terms parasite and host.**

_____

_____

_____

3. **Contrast the terms infection and disease.**

_____

_____

_____

4. **List and define the stages of disease.**

   a. _____

   _____

   b. _____

   _____

   c. _____

   _____

   d. _____

   _____

5. **What is a nosocomial infection?**

_____

_____

6. **Contrast communicable and non-communicable diseases.**

7. **Contrast acute, chronic and latent diseases.**

8. **Contrast and define the terms pathogen and virulence.**

9. **Explain what landscape epidemiology is. What factors are studied in landscape epidemiology to explain disease outbreaks?**

a. _____
b. _____
c. _____
d. _____
e. _____
f. _____
g. _____

10. **Explain the difference between a retrospective study, prospective study and cohort group study.**

a. Retrospective - _____

b. Prospective - _____

c. Cohort group study - _____

11. **Contrast the terms endemic, epidemic, enzootic, epizootic.**

a. Endemic -

b. Epidemic -

c. Enzootic -

d. Epizootic -

12. **Define the following measures of disease or infection: prevalence, incidence, intensity, morbidity rate or mortality rate**

a. Prevalence -

b. Incidence -

c. Intensity -

d. Morbidity Rate -

e. Mortality Rate -

13. **What are the 6 basic steps in the science process.**

a.

b.

c.

d.

e. _____

_____

f. _____

_____

14. **Name two ways a hypothesis can be eliminated without testing. Are there any short comings to using these methods to eliminate a hypothesis? What is a hypothesis?**

a. _____

_____

b. _____

_____

15. **Give three reason why in a scientific investigation it is necessary to work with more than one hypothesis?**

a. _____

_____

b. _____

_____

c. _____

_____

16. **List three things that could be done to increase your confidence in a supported hypothesis.**

a. _____

_____

b. _____

_____

c. _____

_____

17. **Give two reasons why we are never 100% sure about a supported hypothesis in science?**

a. _____

b. _____

_____

18. Why study microbiology? Give 3 resons.

a. _____

_____

b. _____

_____

c. _____

_____

19A. What is the germ theory of disease? What is the theory spontaneous generation? How did Pasteur and Tyndall disprove the theory of spontaneous generation?

_____

_____

_____

_____

_____

_____

19B. What is Koch's postulate used for? Explain the steps of Koch's postulate.

_____

_____

a. _____

_____

b. _____

_____

c. _____

_____

d. _____

_____

20A. Be able to draw simple models of DNA & M-RNA

20B. Be able to draw simple models of T-RNA.

21. Using the terms ribosome, transcription, and translation clearly explain the steps of protein synthesis.

a. _____

b. _____

c. _____

d. _____

e. _____

22. Explain the difference between prokaryotic and eukaryotic ribosomes.

23. What are elongation factors and what do they do?

24. What is M-RNA splicing? Does in occur in both prokarotes and eukarotes? Which does it occur in?

25. What is the smallest thing you can see with the light microscope and the transmission electron microscope?

26. Contrast the light, phase contrast, dark field, and fluorescent microscopes for how they work.

27. Contrast the transmission electron microscope with the scanning electron microscope explaining how they work.

28. Be able to arrange taxonomic groups in their proper order (i.e., kingdom, phylum, class, etc.)

28. Be able to write a scientific name in proper format.

29. Be able to write a common name for a species in proper format

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_____

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