1. Define the following terms:
   a. Biosafety
      ____________________________________________________________
      ____________________________________________________________
   b. Biohazard
      ____________________________________________________________
   c. Risk Factor
      ____________________________________________________________
   d. Biological material
      ____________________________________________________________
   e. Chemical or biological accident
      ____________________________________________________________
   f. Chemical or biological incident
      ____________________________________________________________
   g. Pathogen
      ____________________________________________________________
   h. Aerosols
      ____________________________________________________________
i. PPE

________________________________________________________________________

________________________________________________________________________

2. Describe which PPEs are used by health professionals.

________________________________________________________________________

________________________________________________________________________

What are they for?

________________________________________________________________________

________________________________________________________________________

Discuss at least five other non-health care fields that routinely use PPE for protection from biohazards and why they are needed.

1.  

2.  

3.  

4.  

5.  

3. Differentiate between outbreak, epidemic, pandemic and endemic.

Outbreak

________________________________________________________________________

________________________________________________________________________

Epidemic

________________________________________________________________________

________________________________________________________________________

Endemic

________________________________________________________________________

________________________________________________________________________

Make a Venn diagram or chart that shows the things that are the same and those that are different.

Date completed ________________________________
4. Develop a list of precautions that should be taken during an epidemic/pandemic.

5. Chart, list, or illustrate the differences between isolation and quarantine.
   Isolation

6. Choose two of the following historic diseases and answer:
   • Smallpox
     When did it occur?
     How many were infected? How was it spread?
     What were the symptoms?
     What were the biosafety precautions used?
How was it abated?


• Typhus
  When did it occur?

  How many were infected? How was it spread?

  What were the symptoms?

  What were the biosafety precautions used?

  How was it abated?

• 1918 Influenza (Spanish Flu)
  When did it occur?

  How many were infected? How was it spread?

  What were the symptoms?

  What were the biosafety precautions used?
How was it abated?

• Polio
  When did it occur?

  How many were infected? How was it spread?

  What were the symptoms?

  What were the biosafety precautions used?

  How was it abated?

• Swine Flu
  When did it occur?

  How many were infected? How was it spread?

  What were the symptoms?

  What were the biosafety precautions used?
How was it abated?

________________________________________________________________________

________________________________________________________________________

7. Choose two of the following diseases and answer:
   • Cholera
     What are the symptoms?
     ____________________________________________________________
     ____________________________________________________________
     How is it spread? Is there a cure today?
     ____________________________________________________________
     ____________________________________________________________
     Where and when was there an outbreak/epidemic/pandemic?
     ____________________________________________________________
     ________________________________
     Is there a prevention for this disease?
     ____________________________________________________________
     ____________________________________________________________
     What are the biohazard safety methods used to combat the spread of this disease?
     ____________________________________________________________
     ____________________________________________________________
   • Tuberculosis
     What are the symptoms?
     ____________________________________________________________
     ____________________________________________________________
     How is it spread? Is there a cure today?
     ____________________________________________________________
     ____________________________________________________________
     Where and when was there an outbreak/epidemic/pandemic?
     ____________________________________________________________
     ____________________________________________________________
Is there a prevention for this disease?

What are the biohazard safety methods used to combat the spread of this disease?

• Yellow Fever
  What are the symptoms?

  How is it spread? Is there a cure today?

  Where and when was there an outbreak/epidemic/pandemic?

  Is there a prevention for this disease?

  What are the biohazard safety methods used to combat the spread of this disease?

• Measles
  What are the symptoms?

  How is it spread? Is there a cure today?
Where and when was there an outbreak/epidemic/pandemic?

__________________________________________________________

Is there a prevention for this disease?

__________________________________________________________

What are the biohazard safety methods used to combat the spread of this disease?

__________________________________________________________

• Malaria

What are the symptoms?

__________________________________________________________

How is it spread? Is there a cure today?

__________________________________________________________

Where and when was there an outbreak/epidemic/pandemic?

__________________________________________________________

Is there a prevention for this disease?

__________________________________________________________

What are the biohazard safety methods used to combat the spread of this disease?

__________________________________________________________

• Ebola

What are the symptoms?

__________________________________________________________
How is it spread? Is there a cure today?

__________________________________________________________

Where and when was there an outbreak/epidemic/pandemic?

__________________________________________________________

Is there a prevention for this disease?

__________________________________________________________

What are the biohazard safety methods used to combat the spread of this disease?

__________________________________________________________

• AIDS

What are the symptoms?

__________________________________________________________

How is it spread? Is there a cure today?

__________________________________________________________

Where and when was there an outbreak/epidemic/pandemic?

__________________________________________________________

Is there a prevention for this disease?

__________________________________________________________

What are the biohazard safety methods used to combat the spread of this disease?

__________________________________________________________
• COVID-19

What are the symptoms?

________________________________________________________________________

________________________________________________________________________

How is it spread? Is there a cure today?

________________________________________________________________________

________________________________________________________________________

Where and when was there an outbreak/epidemic/pandemic?

________________________________________________________________________

________________________________________________________________________

Is there a prevention for this disease?

________________________________________________________________________

________________________________________________________________________

What are the biohazard safety methods used to combat the spread of this disease?

________________________________________________________________________

________________________________________________________________________

8. Complete the following:

a. Which of the previous diseases studied are or were endemic to your local area?

b. Which of the previous diseases are current travel concerns and what locations are greater risks to encounter them?

c. Choose a place in the world you would potentially like to travel to and learn of the outbreaks and diseases that require or recommend a vaccine.

Date completed ________________________________________

9. How do vaccines work? Why is it important to be up to date with your immunizations?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
10. Name a national or global entity that assists in developing and applying disease prevention and control.

__________________________________________________________

a. Where is this organization located?

__________________________________________________________

__________________________________________________________

b. What information does it relay and why is it important to know how to access that information?

__________________________________________________________

11. Explain why it is so important to remove medical gloves properly. Demonstrate the proper way to remove medical gloves without transferring pathogens from the gloves to your hands through the following exercise:

a. Coat your gloved hands with a simulated “pathogen” (such as Glo-Germ, cooking oil, ketchup, corn syrup, tempera paint, etc.).

b. Remove the gloves using proper technique without transferring any of the simulated “pathogen” to your skin or clothing.

c. Dispose of the gloves.

d. Clean up the mess.

Date completed ____________________________

12. Regarding the cleaning of hands:

a. Why is hand washing recommended rather than hand sanitizing whenever possible?

__________________________________________________________

__________________________________________________________

b. What steps should be taken to make sure all parts of the hands are clean? Explain why it is important to follow each step.

__________________________________________________________

__________________________________________________________

__________________________________________________________

c. What song have you found that is long enough that you can sing it completely while scrubbing your hands?

__________________________________________________________

__________________________________________________________
d. Why are the use of paper towels and/or air dryers preferable over cloth towels that will be used several times?

__________________________________________________________

__________________________________________________________

e. Make a video or other presentation to demonstrate to your instructor how to properly wash and dry your hands.

Date completed ________________________________

13. Regarding hand sanitizer:

a. Why is 70% isopropyl alcohol the most effective concentration as the main cleansing sanitizer ingredient?

__________________________________________________________

__________________________________________________________

b. What is the correct way to use hand sanitizer?

__________________________________________________________

__________________________________________________________

c. Explain when it is appropriate to use hand sanitizer instead of soap and water.

__________________________________________________________

__________________________________________________________

14. Regarding face masks:

a. Explain the rationale for using a homemade mask.

__________________________________________________________

b. Learn how to improvise a face mask using materials commonly found around your home.

c. Research and make a face mask using ideal fabric and design per instructions.

d. Under what conditions would it be advantageous to upgrade to a certified commercial face mask?

__________________________________________________________

__________________________________________________________
15. Regarding coughing:
   a. Perform the following:
      i. Position yourself 12 inches (30 cm) in front of a clean pane of glass or a mirror and cough on it. Observe the amount and distribution of the droplets produced by the cough. Clean the glass.
      ii. While maintaining the same distance from the glass as with the uncovered cough, repeat by coughing into the crook of your arm. Compare the amount and distribution of droplets. Clean the glass.
      iii. Repeat this exercise while wearing a mask. Compare the amount and distribution of droplets. Clean the glass when you are finished.
   b. Based on your observations, identify what actions should be taken when coughing or sneezing to avoid contaminating other people.

16. Study the protocol that the Lord gave Moses concerning leprosy in Leviticus 13:1-46 and compare those directions to precautions that modern health officials recommend for biosafety concerns.

17. According to Matthew 24:3-8, what does the Bible say about end-time diseases?

18. According to 1 Corinthians 15:51-58 and Revelation 21:1-5, what will happen to sicknesses and diseases when we go to Heaven?