This assignment is designed to accompany the book “The Demon in The Freezer” by Richard Preston, ISBN: 0-345-46663-2. This book can be found in most public libraries or can be purchased at our local bookstores or online (amazon.com, barnesandnoble.com, bigwords.com, etc.). This assignment is worth 100 points.

To receive full credit for this assignment please answer the questions and indicate the page number(s) where you found the answer to the questions.

Something in the Air

1. Is anthrax a Gram + or a Gram – bacteria? How can you tell? (i.e. what color do these bacteria stain?)

2. What is so dangerous about dry anthrax spores vs wet spores? Explain your answer.

3. Who is Dr. Lisa Flannagan?

4. When Dr. Sherif Zaki cuts into the lymph nodes of Robert Stevens, what did he discover?

5. What is the HMRU? Where is it stationed? What is the function of the HMRU?
6. What is the name of the principal biodefense laboratory in the United States?

7. Give a brief description of a level 4 bioprotective space suit.

8. According to the author, where are the only 2 repositories where the smallpox virus officially exist?

9. What are cytokines? What is their function?

The Dreaming Demon

10. *Variola* is the scientific name for smallpox. What does “*variola*” mean in medieval Latin?

11. The genome of the smallpox virus consists of approximately how many letters/nucleotides?
12. According to the book, HIV is a jumper-virus. What hosts did it jump from to eventually infect humans?

13. What are the 3 groups of insect poxviruses?

14. In Hindu Religion, what is the name for the goddess of smallpox?

15. The word “vaccine” is derived from the Latin word that means what?

16. What is the Rahima smallpox strain? Who took care of the 6 scabs that ended up at the CDC?

17. What is Yersinia pestis?

18. What is India-1? What was India-1 used for?
19. What are the names of the two scientists who officially co-discovered the Ebola Reston virus?

20. In what year did pox virologist Joseph Esposito and genomic scientist J. Craig Venter decode the entire DNA of the Rahima strain?

A Woman With A Peaceful Life

21. Where did Lisa Hensley get her Ph.D degree from?

22. What kind of research did Lisa Hensley do at the USAMRIID?

23. What are HeLa cells and what are these cells used for?

24. Who is Ronald J. Jackson and what kind of research was he working on?

25. What is “The Harper” smallpox strain and when was it collected?
26. What happened to monkey C099?

27. At the USAMRIID there’s a place called “The Submarine”. What is “The Submarine”?

28. How much larger is an anthrax spore than a smallpox particle?

29. Why was the Brentwood mail-sorting facility closed down by order of the postmaster general?

30. What is *Bacillus thuringensis* (BT)? What is it used for?
31. Who is Ken Alibek and what is he well-known for?

32. What technique was used to test and detect any human DNA present on the paper envelopes used by the bioterrorists to send the powdered anthrax?

33. Who is Barbara Hatch Rosenberg and what are her beliefs about who was responsible for the anthrax attacks?

34. What’s an STLV?

35. According to the book, what could happen if the human IL-4 gene were put into the smallpox virus?
36. What is the name given to a virus that has been engineered in a laboratory?

37. Approximately how many DNA letters does the human genome contain?

38. Where did Dr. Nanhai Chen get the IL-4 gene from and how much did it cost him?

39. What are the 2 ways to vaccinate a mouse against mousepox?

40. While exploring a dark basement corridor at the Indiana University School of Dentistry, what did the professor find that once belonged to Dr. William Schaffer, a long-dead pathologist?

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