

NAME _____

MCB 2004
GENERAL MICROBIOLOGY
SAMPLE TEST #2
R. H. REEVES

IN THIS PART THERE ARE FORTY-FIVE QUESTIONS WORTH TWO POINTS EACH. THERE IS ONLY ONE CORRECT ANSWER FOR EACH QUESTION. PLEASE CIRCLE THE CORRECT LETTER OR PLACE THE CORRECT LETTER JUST TO THE LEFT OF THE QUESTION NUMBER. THEN TRANSFER ALL YOUR ANSWERS TO THE ANSWER SHEET AT THE END OF THE TEST PACKET.

1. IN ABOUT 1955 HIS RESEARCH GROUP DEVELOPED AN INACTIVATED VACCINE FOR POLIO
 - A. PEYTON ROUS
 - B. WENDELL STANLEY
 - C. DMITRI IWANOWSKI
 - D. EDWARD JENNER
 - E. JONAS SALK

2. ENVELOPED VIRUSES
 - A. CONTAIN BOTH RNA AND DNA
 - B. CONTAIN HOST MEMBRANE PROTEINS
 - C. DO NOT CONTAIN A CAPSID-NUCLEIC ACID CORE
 - D. CONTAIN VIRAL-CODED GLYCOPROTEINS (PEPLOMERS)
 - E. CONTAIN HOST HISTONES

3. CIRCULAR DNA IS FOUND IN THE VIRION (MATURE VIRUS PARTICLE) OF
 - A. PARVOVIRUSES
 - B. PAPILLOMA VIRUSES
 - C. POLIO VIRUSES
 - D. ADENOVIRUSES
 - E. INFLUENZA VIRUSES

4. A MAJOR DIFFERENCE BETWEEN THE GROWTH OF VIRUSES AND CELLS IS THAT VIRUSES
 - A. REPLICATE ONLY ON NUTRIENT AGAR PLATES
 - B. GO THROUGH AN ECLIPSE PHASE
 - C. BOTH OF THE ABOVE
 - D. NEITHER OF THE ABOVE

5. WHICH OF THE FOLLOWING IS A GRAM POSITIVE BACTERIUM
 - A. SALMONELLA TYPHI
 - B. STREPTOCOCCUS PNEUMONIAE
 - C. PSEUDOMONAS AERUGINOSA
 - D. NEISSERIA MENINGITIDIS
 - E. RICKETTSIA RICKETTSII

6. THE GENOME OF A PLANT BIPARTITE VIRUS
 - A. IS DNA
 - B. IS FOUND IN TWO SEPARATE VIRUS PARTICLES
 - C. BOTH OF THE ABOVE
 - D. NEITHER OF THE ABOVE

7. A TEMPERATE BACTERIOPHAGE (LIKE LAMBDA)
A. HAS A DOUBLE-STRANDED RNA GENOME
B. CAN INSERT ITS GENOME INTO THE HOST GENOME
C. BOTH OF THE ABOVE
D. NEITHER OF THE ABOVE
8. THE FIRST VIRUS TO BE DISCOVERED (AND CRYSTALLIZED)
A. HAS AN RNA GENOME
B. IS ICOSAHEDRAL
C. BOTH OF THE ABOVE
D. NEITHER OF THE ABOVE

KEY FOR QUESTIONS 9-14. THERE IS ONLY ONE CORRECT ANSWER BUT EACH KEY WORD MAY BE USED MORE THAN ONCE.

- A. POLIO VIRUS
B. EPSTEIN-BARR VIRUS
C. SMALLPOX VIRUS
D. BACTERIOPHAGE LAMBDA
E. TOBACCO MOSAIC VIRUS
- _____ 9. THE VIRION OF THIS DNA VIRUS HAS A POLYHEDRAL (ICOSAHEDRAL) CORE (OR NUCLEOCAPSID) AND A MEMBRANE ENVELOPE
- _____ 10. THIS VIRUS, DUE TO EFFORTS OF THE WORLD HEALTH ORGANIZATION, NO LONGER INFECTS MAN
- _____ 11. CLOSELY ASSOCIATED WITH THE CANCER, BURKITT'S LYMPHOMA
- _____ 12. GENOME IS AN mRNA WHICH CODES FOR A SINGLE POLYPROTEIN
- _____ 13. ITS DNA INTEGRATES AT THE HOST'S *att* SITE
- _____ 14. ONE OF THE SMALLEST HUMAN RNA VIRUSES

SHORT ANSWER QUESTIONS: ANSWER **ONE** OF THE TWO QUESTIONS
10 POINTS EACH

46. DRAW A DIAGRAM OF AN ANTIBODY MOLECULE (IgG) AND LABEL THE VARIABLE PORTION, THE CONSTANT PORTION AND THE FOUR POLYPEPTIDE CHAINS. ALSO SHOW (DIAGRAMATICALLY) HOW YOUR ANTIBODY MODEL INTERACTS WITH ITS CORRESPONDING ANTIGEN.
47. WHAT IS THE DIFFERENCE BETWEEN ACUTE, CHRONIC AND LATENT VIRAL INFECTIONS? DESCRIBE THE FAMILY OF VIRUSES KNOWN FOR ITS LATENT AND RECURRENT INFECTIONS. WHERE IS THE VIRUS IN THE LATENT STATE AND IN WHAT FORM DOES IT EXIST?