Micro 260 SFCC Winter 2012 Name: _____

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1) Hand draw and label a non-enveloped virion. (4 pts)

2) What is the difference between a non-enveloped virion and an enveloped virion? (4 pts)

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3) How large is the biggest virion compared to how small is the tiniest virion? (2 pts)

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4) What are the criteria used in classifying virions? (4 pts)

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5) How many orders of virions have been classified to date? (2 pts)

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6) Sketch and briefly describe the 5 different stages that a T_4 lytic type virion uses for replication within an *E. coli* bacteria. (10 pts)

7) Draw and annotate a diagram for a virion replication graph. (14 pts)

8) A. During Lysogenic conversion phage lambda virus becomes integrated into an *E. coli* host's genomic structure. What is the resulting integrated virus now called _____? (1 pt)

Lysogenic conversion is responsible for _____ genes being incorporated into the bacterial genome evoking potential disease. (1 pt)

B. During the process of viral excision (called _____) from the *E. coli* host a _____ now follows a lytic process. (1 pt)

C. What are 3 agents that may cause the events in question B? (3 pts)

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9) In what part of Eukaryotic cell animal type: (6 pts):

RNA virus replicated

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DNA virus replicated

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RNA retrovirus

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10) Describe the <u>three mechanisms</u> by which animal viruses make entry into an animal cell. (6 pts)

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11) How does a virus exit an animal cell? (4 pts)

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12) Draw and label the 3 models of by which (-)RNA, (+)RNA, (ds)RNA type virus replicate occurs within Eukaryotic cells. (12 pts)

13) Now, in summary, describe 3 ways that a virus can be damaging to a Eukaryotic cell. (6 pts)

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