Quiz 4: Bi 421/521: Virology. 8 Nov. 2002: Name or Student ID: ___________________

1. Which of the following DNA virus genomes are ready to transcribe as they are packaged in the virion? (1)
   a)  SV-40
   b)  Hepadnavirus
   c)  HIV-1
   d)  Polio

2. Viral promoters have (1)
   a)  TATA boxes
   b)  initiator elements
   c)  both
   d)  neither
   e)  all of the above

3. In what ways is the transcription factor NF-kappaB regulated? (1)
   a)  phosphorylation
   b)  binding to cellular factors
   c)  nuclear localization
   d)  binding to p53
   e)  binding to Rb

4. What are three typical domains of an enhancer binding protein? (3)
   a)  ___________________
   b)  ___________________
   c)  ___________________

5. Draw and label a RNA-Polymerase II promoter with the locations of binding for the TF2D complex, RNA-polymerase and the transcription factor SP1 (as in the SV-40 promoter). (4)