BIOLOGY
Topic Questions

LW14 - VIRUS STRUCTURE

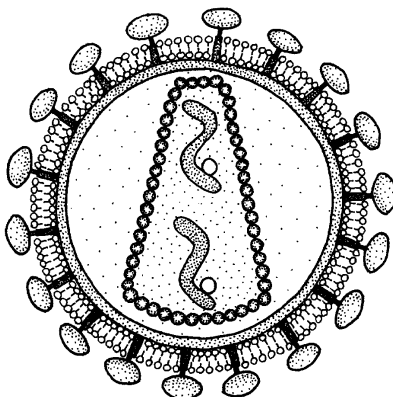**Q1) a)** Explain what a virus is.   **[1 mark]**

b) Why do viruses need to infect host cells?   **[1 mark]**

c) Label the basic structures of a virus particle on the diagram below.   **[3 marks]**

From Get Drawings at: http://getdrawings.com/get-drawing#virus-drawing-5.gif

Q2) a) Complete the table below by adding a tick in the correct box in each row.   **[3 marks]**

Structure	Present in all viruses	Present in some viruses	Not present in viruses
Protein capsid			
DNA			
Reverse transcriptase			
Lipid envelope			
Cell wall			

b) How do viruses get their lipid envelopes?   **[1 mark]**

c) Retroviruses contain RNA, reverse transcriptase enzymes and integrase enzymes in their capsids. Explain how this helps retroviruses to replicate inside host cells.   **[4 marks]**

Q3) a) Describe one typical mechanism viruses use to insert their viral genome inside a host cell.

[2 marks]

b) Explain the typical virus replication cycle in a host cell.   **[4 marks]**

c) Use your knowledge of how viruses replicate to explain why viral infections are often very difficult to neutralise.   **[2 marks]**

[Total 21 marks]