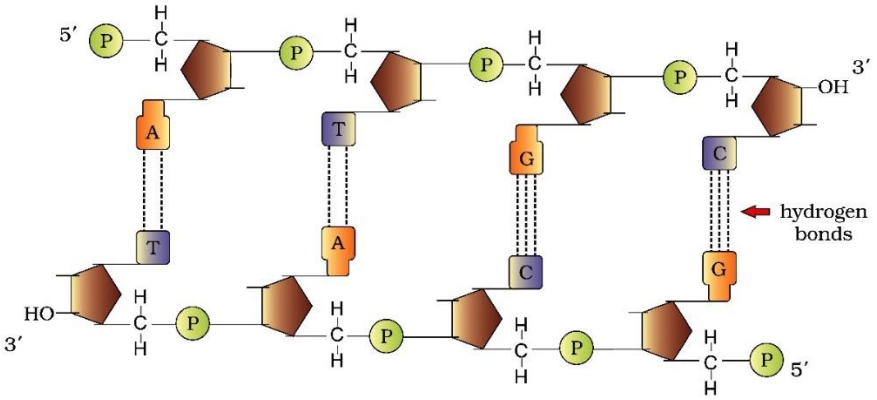
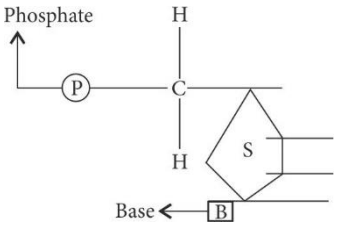
6. Double Stranded Polynucleotide chain



Important questions based on it:

A. Mention the carbon positions to which the nitrogenous base and the phosphate molecule are respectively linked in the nucleotide given below:

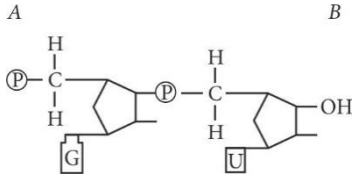


(AI 2008)

B. Draw a schematic diagram of a part of double stranded dinucleotide DNA chain having all the four nitrogenous bases and showing the correct polarity. *(Delhi 2012)*

C. Answer the following based on the dinucleotide shown below.

D.



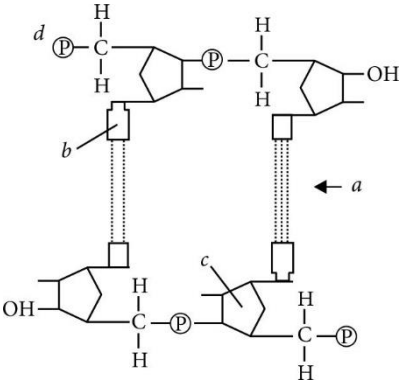
(a) Name the type of sugar guanine base is attached to.

(b) Name the linkage connecting the two nucleotides.

E. Identify the 3' end of the dinucleotide. Give a reason for your answer. *(Delhi 2010C)*

F. Study the given portion of double stranded polynucleotide chain carefully. Identify a, b, c and the 5′ end of the chain.

G.



(AI 2009)

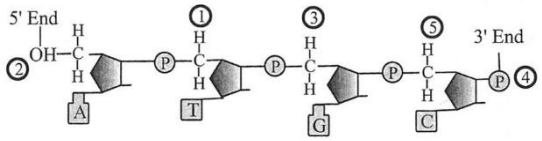
H. Draw a double-stranded dinucleotide chain with all the four nitrogen bases. Label the polarity and the components of the dinucleotide. *(AI 2011C)*

I. Draw a diagrammatic sketch of a portion of DNA segment to support your answer.
(Delhi 2015)

J. Draw a diagrammatic sketch of a portion of DNA segment to support your answer.
(Delhi 2015)

K. Draw a diagrammatic sketch of a portion of DNA segment to support your answer.
(Delhi 2015)

L. Structure of a polynucleotide chain of DNA is given below. Identify the locations (numbered 1 to 5) that show errors in the structure.

M. 

(a) 1 and 3
(b) 1 and 4
(c) 3 and 5
(d) 2 and 4
(e) 4 and 5 *(Kerala PMT)*