1. Sketch an A-form helix and a B-form helix, highlighting the differences between them. Indicate the bases and backbone as lines. Label the major and minor grooves.

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b) Draw the branch point A of the splicing intron lariat. Indicate all three phosphodiester linkages.

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c) (OMIT THIS) Sketch a ribose in the pucker that is expected in RNA.

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d) (OMIT THIS) Sketch a 2’ deoxyribose in the pucker that is expected in DNA.

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e) Draw all the hydrogen bonds on the structure below.

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f) Label the N and C atoms of the bases. Add hydrogen atoms to the N’s. Draw all the hydrogen bonds on the structure below.

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g) Draw a GCG triplet (GC Watson-Crick), with perfect geometry. Draw the bases only, with dR’s at the N-9 positions of the purines (Gs) and at the N1 positions of the pyrimidine (C).

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1. tRNA. Use the secondary structure as a guide to indicate the following locations on the 3D structure of tRNA.

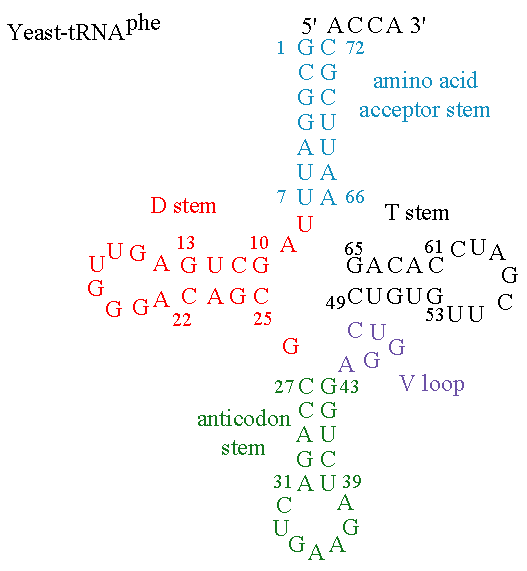
(i) the amino acid acceptor stem

(ii) the D-stem

(iii) the T-Stem

(iv) the anticodon stem

(v) the V-loop



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