Carbohydrates Problem Set 1: Practice Drawing Sugar Structures

(NOTE: You do not need to memorize monosaccharide names and structures, or the standard symbol notation, as these will be provided on the exam.)

Add the necessary substituents to generate D-Glc in Fischer projection.

Name the monosaccharides (designate whether D or L).

Convert each of the Fischer Projections to Haworth Projections as β-pyranoses.

Translate the Haworth projections into stereochemical representations as α-pyranoses in the 4C1 chair configuration.
Name the glycans. Add a sialic acid to one of the glycans in a linkage and at a position known to exist in at least one organism. Name the sialic acid that you have added.

In what glycosaminoglycan(s) would you expect to find the following disaccharides?