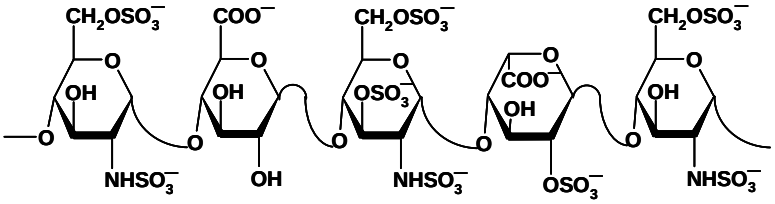
Dr. Desai's section: Select the choice that best answers/completes/matches the question. 3 questions / 9 points

1. **Identify one statement from the following which is <u>NOT TRUE</u> with respect to heparin. 3 pts**
   A) Unfractionated heparin is polysulfated co-polymer of glucosamine and uronic acid residues
   B) Practically all chains of unfractionated heparin are structurally different
   C) Unfractionated heparin requires the presence of antithrombin to exhibit its anticoagulant effect
   D) The sub-cutaneous bioavailability of unfractionated heparin is exceptionally good (>90%) and similar to intravenous.
   E) Heparin is not orally bioavailable
   F) Unfractionated heparin accelerates the inhibition of several enzymes of the coagulation cascade, especially thrombin and factor Xa
   G) The inhibitory activity of heparin is felt almost instantaneously

2. **Anticoagulant coumarins have a delayed onset of action because 3 pts**
   A) Coumarins inhibit thrombin and that takes time
   B) Coumarins are slow in getting absorbed through the GI tract
   C) It takes one full cycle of clearance of active thrombin from our body for coumarins to exert their effect
   D) Coumarins inhibit vitamin K reductases and this inhibition is a slow process

3. **Which of the following heparin chain(s) is/are expected to exhibit normal anticoagulant activity?** See sequences 1 and 2 below. Circle clearly so that TA is not left in doubt. **3 pts**
   A) A heparin chain of ~ 50 saccharide residues and lacking sequence 1
   B) A heparin chain of ~5 saccharide residues containing sequence 2
   C) A heparin chain of ~5 saccharide residues and containing sequence 1
   D) A heparin chain of ~50 saccharide residues, containing sequence 1 and lacking sequence 2

Sequence 1



Sequence 2