## Protein Modeling - Division C Image Packet

University of Texas-Austin Regional Competition February 22, 2020



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## DO NOT WRITE ON THE IMAGE PACKET.

## **Instructions and Clarifications:**

- You have **50** minutes to finish this exam and the computer exploration of protein structure. This packet contains **60**% of the overall score.
  - The **Exam** is comprised of Section **I** and **II**. The exam accounts for **30**% of the overall score.
  - The **Computer Exploration** is comprised of Section III. The computer exploration accounts for **30**% of the overall score.
- Each **participant** may bring **one** 8.5" x 11" sheet of paper that may be in a sheet protector or laminated that contain information without any annotations or labels affixed along with writing utensils for each participant.
- Anything written on the exam packet will **not** be graded. Only the **answer sheet** will be graded.
- Write your team number on every page of the answer sheet.
- Tiebreakers are labeled as TB#. There are five tiebreakers in this exam.
- If you have any questions or comments about this exam, feel free to email me at *velasco.scienceolympiad@qmail.com*. Happy testing!

Figure 1.1

Figure 1.2

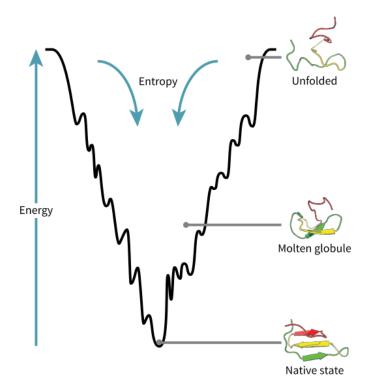


Figure 1.3

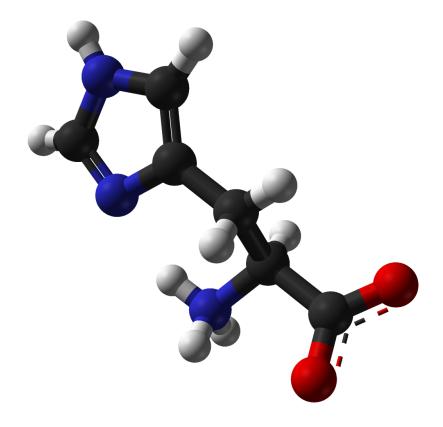


Figure 1.4

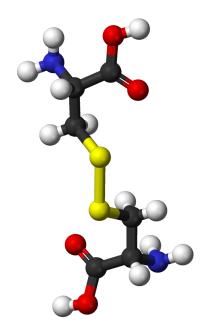


Figure 1.5

S.No.	Types of helix	No. of residue per turn	Pitch	Radius of helix	Rise per residue
1.	lpha helix	Α	Е	1	L
2.	В	3	F	J	M
3.	2.2 <sub>7</sub> ribbon	С	G		N
4.	D	4.4	Н	K	0

Figure 2.1

