**BT305 LAB 5**

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**Roll No.:** 210106004

**1)**

Total relative Solvent Accessible Surface Area(SASA):

Alpha helix = 1712.39

Beta sheet = 2669.05

Protein G = 3712.8

Trpcage = 1859.4

**2)**

Average per residue solvent accessible surface area:

Alpha helix = 122.31

Beta sheet = 121.32

Protein G = 66.3

Trpcage = 93.0

**3)**

Per-residue solvent accessible surface area gives a measure of how much each residue in the protein is exposed to the solvent on average.

Protein G < Trpcage < Beta sheet < Alpha helix

**4)** If we change the probe radius from 1.4 to 1.0:

Absolute SASA values:

Alpha helix = 1627.27

Beta sheet = 2529.59

Protein G = 3735.83

Trpcage = 1759.20

Relative SASA values:

Alpha helix = 0.95

Beta sheet = 0.94

Protein G = 1

Trpcage = 0.94

**5.)** In both cases trp is buried as it is a hydrophobic residue, so it is less exposed to the solvent.