**Problem 1)**

I think that it is single compound word with space as special character and comprising of all alpha numeric characters.

* I would consider this expression (8.16 +/- 0.20) as 3 words when I am evaluating any model and that last number is error term which means (8.16 + 0.20) or (8.16 – 0.20)
* This expression should be considered as 9 words when thinking of converting speech to text. Parsing word by word.

**Problem 2)**

1. The probability that someone asks `why do you' as a complete question.

* P(why|<s>)P(do|why)P(you|do)P(</s>|you)

As this is a complete question so probability of “why” will be given it is starting word and will end with “you”.

1. The probability that you hear `why do you' as a snippet of a conversation  as you walk across the campus

* P(why)P(do|why)P(you|do)

Because this is in between so it does not have start and end.

1. The probability that you hear a question beginning `why do you'.

* P(why|<s>)P(do|why)P(you|do)

Because we hear a question with “why” so it will have just starting.

**Problem 3)**

P(I) = 3/20

**Problem 4)**

P(I|<s>) = 2/3

P(am|I) = 2/3

**Problem 5)**

Plaplace(Ga) = 4/5

Plaplace(Bu) = 1/5

V = 2

N= 3

cGa= 3

cBu= 0

**Problem 6)**

P​Laplace ​(Ga|Bu) = (1+1)/ 5 = 2/5