

## Supplementary Material

# League of Brazilian Bioinformatics: a competition framework to promote scientific training

Carvalho, L.M.; Coimbra, N.; Neves, M.; Fonseca, N.; Costa, M.A.; Horacio, E.; Riyuzo, R.; Aburjaile, F.F.; Nagamatsu, S.T.

**Table S1.** Values of a (discrimination) and b (difficulty) of the 2PL model of each knowledge area for the 60 questions in the first phase of the LBB.

Knowledge Area	Question (Qi)	a	b
CS	Q1	0.677184614	0.375594022
CS	Q2	0.595669378	-0.2544022
CS	Q3	1.267648793	-0.35025751
CS	Q4	0.150213833	0.497767792
CS	Q5	0.272514146	1.691122277
CS	Q6	0.77492097	-2.96670947
CS	Q7	0.6710295	-2.39132228
CS	Q8	0.378753189	-3.1230163
CS	Q9	0.788256406	-0.85130745
CS	Q10	0.849993797	-0.69126061

CS	Q11	-0.248475874	-5.55864787
CS	Q12	2.215946279	-0.79666983
CS	Q13	0.923859688	0.683360721
CS	Q14	0.160472304	2.835483322
CS	Q15	0.772714504	1.389237722
CS	Q16	3.341538465	-1.21066181
CS	Q17	2.094052667	-1.05596877
CS	Q18	1.534820666	-0.73431154
CS	Q19	0.667034087	-1.86253556
CS	Q20	2.806777303	-0.92381105
B	Q21	0.068107356	11.43157047
B	Q22	0.606629371	0.409721461
B	Q23	0.828012131	2.363200184
B	Q24	0.544660247	-1.18185507
B	Q25	0.557793044	0.582622738
B	Q26	0.387371707	-0.38903123
B	Q27	0.630909939	-1.32078153
B	Q28	0.494180906	3.409392409
B	Q29	0.51348152	1.266124635

B	Q30	0.723545627	0.243147962
B	Q31	1.015831514	-0.41560245
B	Q32	1.047449654	-2.56363653
B	Q33	1.706633895	-1.6695737
B	Q34	0.793477913	-3.19110215
B	Q35	0.428787816	-1.88049401
B	Q36	0.825573677	-1.84544957
B	Q37	0.471296434	-4.59676435
B	Q38	0.908781745	-2.38646555
B	Q39	1.338924916	-3.11217277
B	Q40	0.490613358	-2.67551154
BioInfo	Q41	0.864003856	-1.24198323
BioInfo	Q42	-0.184877153	-9.52685142
BioInfo	Q43	0.855765405	0.216642178
BioInfo	Q44	1.670270262	-0.2286126
BioInfo	Q45	0.969547183	1.166217418
BioInfo	Q46	0.219858468	0.343448598
BioInfo	Q47	2.469140236	-1.68054068
BioInfo	Q48	0.863796224	-0.17682688

BioInfo	Q49	3.339488506	-0.94045481
BioInfo	Q50	0.602862149	0.013697615
BioInfo	Q51	1.400070285	0.998039735
BioInfo	Q52	0.329866431	0.467024694
BioInfo	Q53	0.67605638	-0.22453786
BioInfo	Q54	0.835970161	0.220037391
BioInfo	Q55	1.373215187	-0.11766919
BioInfo	Q56	1.182776545	-1.51483846
BioInfo	Q57	1.496766107	-1.28644172
BioInfo	Q58	1.00167053	-1.32871098
BioInfo	Q59	0.42158735	0.932015018
BioInfo	Q60	0.451975647	4.368745145

Legend: CC: Computer Science; B: Biology; BioInfo: Bioinformatics

## EVALUATION FORM

### 1. Scientific Question

Criterion 1: The research challenges are perfectly formulated and placed against the state of the art and the existing literature.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 2: Original, bioethical, and internationally competitive research project.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 3: Innovative research project.

0	1	2	3	4	5
---	---	---	---	---	---

### 2. Choice of Methodology

Criterion 4: The methodology described is convincing.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 5: The research project can be carried out within the proposed deadline.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 6: The research project is reproducible.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 7: The project is feasible according to the budget.

0	1	2	3	4	5
---	---	---	---	---	---

### 3. Discussion and Results

Criterion 8: The results have a great possibility of significantly expanding the frontier of knowledge in the area and, therefore, of having a very relevant scientific impact.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 9: The results have a positive social return and environmental impact.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 10: There is the creation/support of new collaboration networks, infrastructure, dissemination of results, and among others.

0	1	2	3	4	5
---	---	---	---	---	---

### 4. Presentation

Criterion 11: Clean and creative presentation.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 12: Oral presentation of the team.

0	1	2	3	4	5
---	---	---	---	---	---

Criterion 13: The writing of the document.

0	1	2	3	4	5
---	---	---	---	---	---

## 5. Bonus

Bonus Criterion: The team presented relevant topics beyond the expected.

What was the Bonus? Bonus score of 1-5

Bonus 1:

---