Student ID: _____

OBSERVATIONAL EXAM – 1ST NIGHT - SOLUTIONS

1 – Telescope already pointed to that region (or not?) (5minutes)

Answer: **24,0 arc minutes** (0.4°). We will tolerate up to 10% error as correct answer. Error between 10 to 20% will be considered 70% correct.

2 – Exact answer is **magnitude 7.9** but we will assume values between 7.7 – 8.1 as correct (0.2 magnitude tolerance). Values between 7.5 – 7.7 or 8.1 – 8.3 will be considered as 70% correct. (5 minutes)

3 - (5 minutes)

Brighter:	White/blue ( )	Yellow (**X**)	Red ( ) **(K0III)**
Dimmer:	White/blue (**X**)	Yellow ( )	Red ( ) **(B9IV)**

If the student is not able to point to the star the evaluator will do so, but student loses half of the points.

4 – Targets pointed by the evaluator will be M22, M8, M7 and M57. Student will have 30 seconds to evaluate each target.

Object 1 (M22)	(**GC**)	Object 3 (M7):	(**OC**)
Object 2 (M57)	(**PN**):	Object 4 (M8)	(**EN**)

5 – Students will have 3 minutes to complete this task.

Student ID: _____

OBSERVATIONAL EXAM – 2ND NIGHT - SOLUTIONS

1 – Student will have **2 minutes** to accomplish this task.

2 – R: **(6 minutes)**

a) **1.5**
b) **0.5**

3 – R: ~ **4.5'** (4'18"). 4 to 5 arc minutes will be considered 100% correct answers. 3.0 – 3.9 or 5.1 – 6.0 arc minutes will be considered 70% correct. **(5 minutes)**

4 –**(5 minutes)**

Brighter:	White ( )	blue ( )	Yellow (**X**)	Red ( ) **(K3II)**
Dimmer:	White ( )	blue (**X**)	Yellow ( )	Red ( ) **(B8V)**

5 –Targets pointed by the evaluator will be M4, M8, M6 and M57. Student will have 30 seconds to evaluate each target. **(2 minutes)**

Object 1 (M4) (**GC**) Object 3 (M6): (**OC**)
Object 2 (M57) (**PN**): Object 4 (M8) (**EN**)