

Team Number: \_\_\_\_\_ Team Name: \_\_\_\_\_

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Answer Sheet:

- 1a) \_\_\_\_\_ Cepheid \_\_\_\_\_ (Type) 5b) \_\_\_\_\_ U \_\_\_\_\_ (A - X)  
\_\_\_\_\_ Semi - Regular \_\_\_\_\_ (Type) 5c) \_\_\_\_\_ R Coronae Borealis \_\_\_\_\_ (Type)  
\_Type II Supernova or Cataclysmic\_ (Type) 5d) \_\_\_\_\_ F \_\_\_\_\_ (A - X)
- 1b) \_\_\_\_\_ P \_\_\_\_\_ (A - X) 6a) \_\_\_\_\_ P \_\_\_\_\_ (A - X)  
\_\_\_\_\_ R \_\_\_\_\_ (A - X) 6b) \_A hump on the ascending curve\_  
\_\_\_\_\_
- 1c) \_\_\_\_\_ 9 \_\_\_\_\_ (1 - 10)  
\_\_\_\_\_ 1 \_\_\_\_\_ (1 - 10)  
\_\_\_\_\_
- 2a) \_\_\_\_\_ Q \_\_\_\_\_ (A - X) 6c) \_The color would change because the\_  
\_\_\_\_\_ 6b) \_temperature is changing. At maxima\_  
\_\_\_\_\_ 6c) \_temperature is highest and the color\_  
\_\_\_\_\_
- 2b) \_\_\_\_\_ Flare Star \_\_\_\_\_ (Type) \_\_\_\_\_  
\_\_\_\_\_ would be bluer during these times \_\_\_\_\_
- 2c) \_\_\_\_\_ 3 \_\_\_\_\_ (1 - 10) \_\_\_\_\_
- 3a) \_\_\_\_\_ SU Ursae Majoris \_\_\_\_\_ (Object) \_\_\_\_\_
- 3b) \_Solar-Type (Main Sequence)\_ (Type) \_\_\_\_\_  
\_\_\_\_\_ White Dwarf \_\_\_\_\_ (Type) 7a) \_\_\_\_\_ W \_\_\_\_\_ (A - X)  
\_\_\_\_\_ Accretion Disk \_\_\_\_\_ (Type) 7b) \_The observed spectra is shifted\_  
\_\_\_\_\_
- 3c) \_\_\_\_\_ D \_\_\_\_\_ (A - X)  
\_\_\_\_\_ S \_\_\_\_\_ (A - X)  
\_\_\_\_\_ towards shorter wavelengths \_\_\_\_\_  
\_(Doppler Effect); so the wind is \_\_\_\_\_
- 3d) \_\_\_\_\_ E \_\_\_\_\_ (A - X) \_\_\_\_\_  
\_\_\_\_\_ blowing towards Earth \_\_\_\_\_
- 4a) \_\_\_\_\_ H \_\_\_\_\_ (A - X) \_\_\_\_\_
- 4b) \_\_\_\_\_ 7 \_\_\_\_\_ (1 - 10) 8a) \_\_\_\_\_ 85 - 100 \_\_\_\_\_ (days)
- 4c) \_\_\_\_\_ RR Lyrae \_\_\_\_\_ (Type) 8b) \_\_\_\_\_ 400 - 450 \_\_\_\_\_ (days)
- 4d) \_\_\_\_\_ 8 \_\_\_\_\_ (1 - 10) 8c) \_\_\_\_\_ Pulsating \_\_\_\_\_ (Type)
- 5a) \_\_\_\_\_ RY Sagittarii \_\_\_\_\_ (Object) 8d) \_\_\_\_\_ L \_\_\_\_\_ (A - X)

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8e) \_\_\_\_\_A\_\_\_\_\_ (A – X) 13) \_\_\_\_\_9.0\_\_\_\_\_ (Solar Masses)

8f) \_\_\_\_\_V725\_\_\_\_\_ (Object) 14) \_\_\_\_\_1.0\_\_\_\_\_ (A.U.)

8g) \_\_\_The more massive main sequence\_ 15) \_\_\_\_\_200 – 236\_\_\_\_\_ (km/s)

\_\_\_star has accreted mass from the \_\_\_ 16) \_\_\_\_\_50 - 70\_\_\_\_\_ (Degrees)

\_\_\_originally more massive red giant\_ 17) \_\_\_\_\_A\_\_\_\_\_ (A – C)

\_\_\_companion\_\_\_\_\_ 18) \_\_\_\_\_E\_\_\_\_\_ (A – G)

\_\_\_\_\_ 19) \_\_\_\_\_4\_\_\_\_\_ (times more)

9a) \_\_\_\_\_V\_\_\_\_\_ (A – X) 20) \_\_\_\_\_5.3 - 5.4\_\_\_\_\_ (days)

9b) \_\_\_Nucleus of a Galaxy\_\_\_ (Type) 21) \_\_\_\_\_4.75 - 4.95\_\_\_\_\_ (days)

9c) \_\_\_No – Core, Star was Destroyed\_\_\_ (Type) 22) \_\_\_\_\_240 - 290\_\_\_\_\_ (parsecs)

10a) \_\_\_T\_\_\_\_\_ (A – X) 23) \_\_\_\_\_66 - 69\_\_\_\_\_ (parsecs)

10b) \_\_\_\_\_Speeding Up\_\_\_\_\_ 24) \_\_\_\_\_C\_\_\_\_\_ (A – C)

10c) \_\_\_128 – 136 x 10<sup>6</sup>\_\_\_\_\_ (Years) 25) \_\_\_\_\_28 - 32\_\_\_\_\_ (parsecs)

10d) \_\_\_\_\_4\_\_\_\_\_ (1 – 10) 26) \_\_\_1.3 – 1.5 or SQRT(2)\_\_\_ (times smaller)

11) \_\_\_Period decreased and is now \_\_\_\_\_ 27) \_\_\_\_\_0.2 – 0.3\_\_\_\_\_ (mW)

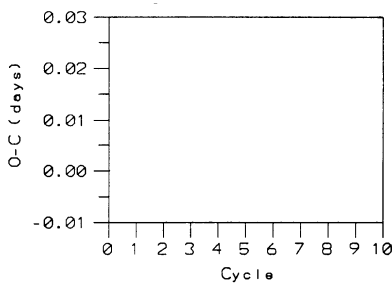
\_\_\_increasing with a constant rate\_\_\_\_\_ 28) \_\_\_\_\_Neutron Star\_\_\_\_\_ (Type)

\_\_\_of change\_\_\_\_\_

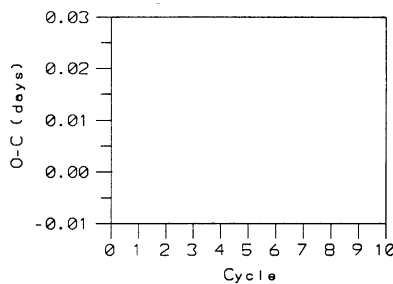
\_\_\_\_\_

\_\_\_\_\_

12a)



12b)



12c)

