**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_**

**Chapter 25.1-Characteristics of Stars**

1. **What is the nearest star to earth, besides the sun, and how far away is it?**
2. **What type of reaction keeps stars “alive” or burning?**
3. **How is a star held together?**
4. **How many constellations are there in our sky?**
5. **What is meant by the term parallax?**
6. **Do close stars or distant stars have smaller parallax angles?**
7. **What is a light year?**
8. **If I have a binary star that is the same mass as another star where it shares a common center of mass, where will the center of mass be? (you can draw a picture?**
9. **If I have a binary star that is less massive than its partner star, where will the center of mass be? (you can draw a picture)**
10. **Do smaller or larger magnitude values represent brighter objects?**
11. **What is the difference between apparent and absolute magnitude?**
12. **List the classifications of stars from hottest to coldest-include color and class.**
13. **Why do hot stars appear more blue?**
14. **What class of stars does the sun belong to?**
15. **What are Hertzsprung-Russell Diagrams used for?**

**Use the diagram below to answer questions 16-23**

****

1. **What variable is represented on the x-axis?**
2. **What variable is represented on the y-axis?**
3. **How do we classify the group of stars clustered at point A?**
4. **How do we classify the group of stars that runs from point B to point C?**
5. **What is the difference between point D & point E?**
6. **Which star is the largest on the chart?**
7. **Which star is the smallest on the chart?**
8. **Where is the brightest star located?**
9. **What is a nebula?**
10. **What is a cepheid star?**
11. **What is a nova?**
12. **How do scientists think that novas form?**
13. **Describe the two types of nebulas.**
14. **What is an emission nebula?**
15. **What is a reflection nebula?**