

Basic Astronomy
Final Test

Name: _____

Chapter 20: Studying the Universe

MULTIPLE-CHOICE: Circle the best answer to the questions below:

1. The most important functions of a telescope are (Circle two)
 - a. to gather light
 - b. to magnify images of objects in space
 - c. to focus light
 - d. to take photographs of objects

2. Putting two radio telescopes together is useful because
 - a. they can tune into more frequencies at once
 - b. two 'scopes are better than one
 - c. they combine to act like one bigger telescope
 - d. it isn't useful at all

3. A yellow line of sodium from a star appears more orange. This would be because:
 - a. the star is moving towards us
 - b. the star is moving across our line of sight
 - c. the star is moving away from us
 - d. the star is not moving

4. A hot gas produces
 - a. a continuous spectrum
 - b. a bright line spectrum
 - c. a dark line spectrum
 - d. white light

5. Pick two kinds of electromagnetic radiation that have less energy than visible light
 - a. infrared light
 - b. radio light
 - c. UV light
 - d. gamma rays

6. Pick two kinds of electromagnetic radiation that have more energy than visible light
 - a. microwave light
 - b. radio light
 - c. X-rays
 - d. gamma rays

Chapter 21: Stars and Galaxies

SHORT ANSWER: Fill in the blanks. Use the star-finder we made to help answer the questions:

7. Name one circumpolar constellation: _____
8. Name one constellation that is not circumpolar but is visible in the South during the winter evenings: _____
9. Approximately what month does Scorpio appear in the south at 6 pm:

10. Describe one way variable stars can be variable:

11. List the following objects in order of dimmest to brightest: Polaris, magnitude +2.0; Rigel, magnitude -6.4; Venus, magnitude -4.4; Procyon, magnitude +.04

12. List which objects are found in the galactic bugle and which are in the disk:
old stars; new stars; a black hole millions of stars big; cold hydrogen gas clouds
bugle: _____
disk: _____

Chapter 22: The Sun

WRITE A SHORT DESCRIPTION and LABEL IT ON THE DIAGRAM:

13. The core of the Sun: _____

14. The radiation zone of the Sun: _____

15. The photosphere of the Sun: _____

16. The corona of the Sun: _____

17. A flare on the Sun: _____

18. Describe the solar wind: _____

Chapter 23: The Solar System

MATCH-UP: Match the description with the object.

- | | | | |
|-----|---------------|-------|---------|
| 19. | Rocky Planet | _____ | Mercury |
| 20. | | _____ | Jupiter |
| 21. | Asteroid | _____ | Xena |
| 22. | Gas Giant | _____ | Ceres |
| 23. | | _____ | Neptune |
| 24. | Dwarf Planet | _____ | Uranus |
| 25. | Kuiper Object | _____ | Venus |
| 26. | No Moons | _____ | Earth |
| 27. | Has Rings | _____ | Pluto |

28. Describe how planets outside our solar system are found:

Chapter 24: The Moon's Motion and Phases

MAKE A DIAGRAM Show the position of the Moon, the Sun, and the Earth at each of the following phases:

29. New Moon

30. Quarter Moon

31. Full Moon

32. During which phase can a *solar eclipse* occur: _____

33. During which phase can a *lunar eclipse* occur: _____

34. Describe what causes an *impact feature* on the Moon:

Chapter 25: The Earth's Motions

35. The cause of the **seasons** is:
- a. the Earth travels in an ellipse
 - b. the Earth rotates
 - c. the Earth's axis is tilted
 - d. the Coriolis effect
36. The Sun and planets move in a **path** in the sky called:
- a. the equator
 - b. the ellipse
 - c. the ecliptic
 - d. the equinox
37. For a **sundial** to work it must point:
- a. towards the Sun
 - b. towards the North Star
 - c. directly above
 - d. horizontally
38. As we move **from the North Pole to the equator** the North Star
- a. gets lower in the sky
 - b. gets higher in the sky
 - c. stays where it is
39. Give a reason why we have *standard time* instead of *solar time*:
-
-
40. List one constellation found on the *Zodiac*: _____