**Physics Unit 10: Light, Reflection and Refraction Test Review**

**Test Setup:**

Multiple Choice: 22 ( 1 pt each ) Short Answers: 5 (5 pt each) Problems: 8 ( 6 pt each)

**Short Answers:**

1. What type of image do flat mirrors always form?
2. How are the terms ***luminous flux*** and ***illuminance*** related to each other?
3. What happens to the speed of light as it moves into a substance with a higher index of refraction?
4. How does white light passing through a prism produce a visible spectrum?
5. How are two converging lenses used to view an object in a compound microscope?

**Multiple Choice:**

1. Define the following terms:
2. Interference
3. Refraction
4. Diffraction
5. Reflection
6. How is speed affected as light changes from one medium to another?
7. When is light not refracted?
8. If light travels enters any substance with a higher refractive index, it slows down and the light bends toward the normal line
9. If light travels enters any substance with a lower refractive index, it speeds up and the light bends away from the normal line
10. What type of image is formed when rays of light intersect?
11. What type of image does converging lens produce?
12. In what direction does a parallel ray from an object proceed after passing through a diverging lens?
13. In what direction does a focal ray from an object proceed after passing through a converging lens?
14. In what direction does a focal ray from an object proceed after passing through a diverging lens?
15. In what direction does a parallel from an object proceed after passing through a converging lens?
16. How many focal points and focal lengths do converging and diverging lenses have?
17. What charge is the focal length for a converging lens?
18. Describe a virtual image
19. When are the angles of incidence and reflection equal on a mirror?
20. Describe the image on a flat mirror.
21. What type of mirror is used when a magnified image of an object is needed?
22. For what types of rays are the mirror equation and ray diagrams valid?
23. How are object distance, image distance, and radius f curvature for curved mirrors related?

**Problems:**

**Study the homework handouts for the problem types listed below**

Wavelength: 3

Snells Law: 3

Critical Angle: 2