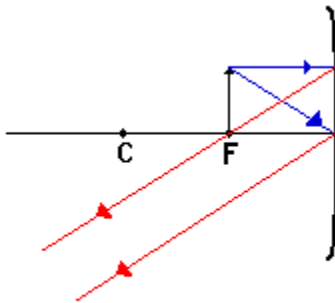


Answer Key for sahil31415's Optics Test

**There are a total of 50 points in this examination (1 point per question)**

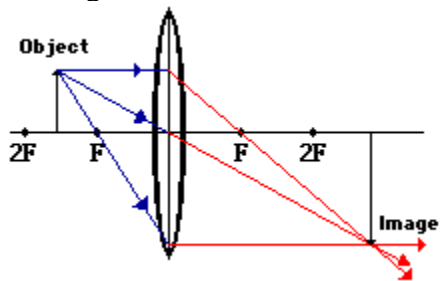
1. 20.126 degrees
2. 22.8 cm, -1.99 cm
3. Green
4. Imperfection in curvature of cornea
5. Cornea
6. Optic nerve head/optic disc
7. 3.333 diopters
8. Concave
9. Lower
10. 570 lum
11. Wavelength
12. 4 feet
13. 43.125 cm, 22.5 cm
14. D
15. 30 cm
16. 20 cm
- 17.



**Ray Diagram for Object Located at F  
(an image is not formed)**

18.  $1/f$ ,  $f$ =focal length in meters
19. CR39=1.498, Diamond=2.42, Water=1.33, Air=1.0003, Glass=1.52, Heavy Flint glass=1.65
20. 20.5 degrees
21. 3.2 meters
22. 1.62
23. 25.9 degrees
24. 60.5 degrees
25.  $I = I_0(\cos(\theta))^2$ ,  $I$ =transmitted intensity,  $I_0$ =original intensity,  $\theta$ =angle through which polarizer rotated from position giving maximum intensity.
26. Blue
27. Absorb green, transmit blue and red
28. Sun, Light bulb, flashlight
29. Reflecting
30. Visible Light

31. 10 cm
32. -1.5 m
33. 24 cm
34. 0.75
35. 49 degrees
36. The center of a circle which passes through the parabola at the vertex with the same tangent and curvature.
37. 16 cm
38. 2.96
39. Green
40. 38.9 degrees



- 41.
42. Larger, Inverted, Real
43. 100
44. Farsightedness
45. Converging
46. Rod cells can function better in low light, but can't detect color.
47. Iris
48. 27.8 cm
49. 1.35
50. Focuses light onto the specimen