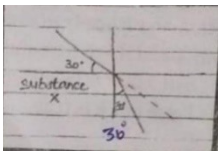
Physics full syllabus test for tenth std

1. 

a) what is angle i?

b) what is angle r?

c) what is the refractive index? 3

2. two metallic wires A and B of same material are connected in parallel. Wire A has length and radius r and wire B has length 2l and radius r. compute the ratio of the total resistance of parallel combination and the resistance of wire A? 2

3. why electrical appliances of domestic circuits are connected in parallel? Give any example where series is used in home. 2+1

4. state Snell's law. 2

5. Differentiate between Ohm's law and Joules law of heating. 3

6. what's happened to a monochromatic light during passing through a prism and glass slab? What is the number of the colour of egg yolk and brinjal when red colour is marked as 1. 3

7. define electromagnetic induction. How is it produced? State two factors affecting it. State one application of it. 5

8. If the frequency of AC is 60Hz then by what time AC changes it direction? Give two sources of AC and DC. Also state one advantage and disadvantage of each. 5

9. $P=I^2R$ and $P=V^2/R$ which statement is correct? 2

10. a mirror gives a smaller image no matter where the object is placed. Which type of mirror is it? Write one application of it. What is the best reflector of light? 5

11. absolute RI of water and glass is 4/3 and 3/2 respectively. Find n_{wg} and n_{gw}. 2

12. what will be ratio of new resistance if you double the area and double the radius of a wire? How does the resistivity differ? 3

13. write 6 points about fuse.3

14. why alloys are used for heating devises? Why copper is used as electric transmission wire? 3

15. a coil made of copper insulated wire is connected to a galvanometer. What will happen to the deflection of the galvanometer if this coil is moved towards a stationary bar magnet and then moved from it? Why ammeter and galvanometer is connected in series? 3

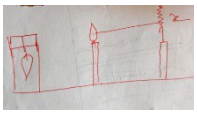
16. what is power of accommodation? How is it controlled by the ciliary muscle? 2+ 2

17. rainbows are frequently visible on the water falls. Why? What are the phenomena associated with rainbow? Give another example of total internal reflection. 1+2+1

18. In human eyes among u,v and f which one is unchanged? 1

19. Write any two uses of spherical mirror with suitable diagram. 3

20. What is difference of the colours of sky seen from the earth and the moon. 2

21.  identify X whether it is a lens or mirror. 1

22. while the element of the electric heater is glowing but the cord is not glowing. Why? 2

23. what is the resistance of voltmeter and what is the focal length of plane mirror? 2

24. define 1 ampere. 1

25. what are the factors affecting lateral displacement of light? 2

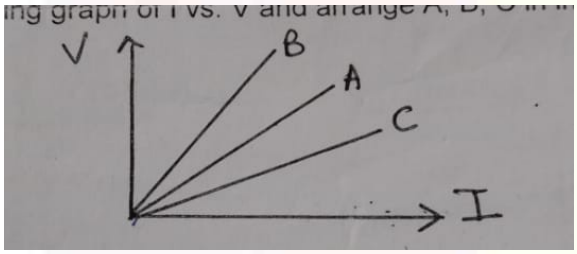
26. draw a domestic circuit. Give one reason of short circuit and overloading. What is the potential difference between live wire and black wire? 2+ 2+1

27. Manganin is used to make identical resistor. Why? 1

28. Prove that m for the plane mirror is +1. If you are moving towards a plane mirror at 2m/s then what will be the velocity of the image? 2

29. Draw two diagrams to show there is no deviation of reflected ray in front of concave mirror. 2

30. A silk cloth is rubbed with glass, the rod is charged to 5 micro C . how many electrons are transferred? 2

31. 

arrange A,B,C in order of resistace.

Justify the answer. 2

32. Draw the diagram of myopia and its correction.3

33. Why two magnetic field lines never intersect each other? 1

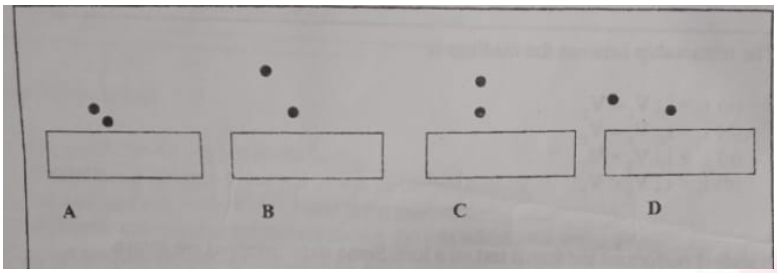
34. Draw a solenoid. Compare with bar magnet. 2+2

35. If one electron is moving from south to north and magnetic field line is directed towards east find the direction of deflection. 2

36. What is the relation between speed of light and refractive index? 1

37. State two age related eye defects. How can we correct those? 2

38. The refractive index of diamond is 2.42. what does it mean? 1

39. 

what is the correct diagram of lateral displacement? 1

40. State Fleming's left hand rule with a diagram. 2