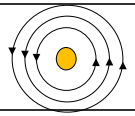
MAXIMUM PROBABILITY QUESTIONS LIST FROM PHYSICS FOR SSC MARCH 2017

Name of the lesson	AS-1 (Differences)	AS-1 (Understanding/Explanations/….)
1. Heat	1. Differences between evaporation and boiling 2. Differences between specific heat and latent heat	1. Examples of evaporation 2. Why dogs panting during hot days ? 3. Reason for water droplets formed on tomato when bring out from fridge
3. Reflection of Light	1. Differences between convex mirror and concave mirror 2. Differences between real image and virtual image	1. Laws of reflection 2. Sign convention rule 3. Why convex mirror used as rear view mirror ? 4. Magnification
5. Refraction at Plane surfaces	1. Differences between mirrors and lenses	1. Formation of mirages 2. Critical angle 3. Total internal reflection 4. Which are not change in refraction
6. Refraction at Curved surfaces	1. Differences between Convex lens and concave lens	1. Taking photo of a zebra by placing stripes glass before lens of camera – Properties of image
7. Human eye and Colourful world	1. Differences between scattering and dispersion 2. Differences between reflection and refraction	1. Explain Myopia – How to correct the defect ? 2. Explain Hypermetropia – How to correct it ? 3. Explain Presbyopia 4. Lens power 5. Formation of Rainbow in water drop
11. Electric Current	1. Differences between ohmic and non ohmic conductors 2. Differences between series combination and parallel combination of resistors 3. Differences between emf and potential difference	1. Working of battery 2. Laws of resistance ($R = \frac{\rho l}{A}$) 3. Electric shock 4. Kirchoff's junction law and loop law 5. Formula for resultant resistance when three resistors are connected in series 6. Formula for resultant resistance when three resistors are connected in parallel 7. KWH
12. Electro-magnetism	1. Differences between motor and generator	1. Are magnetic lines of forces closed ? 2. Working of Motor 3. Working of A.C. Generator 4. Working of D.C. Generator 5. What happened when bar magnet kept neat a TV ? 6. Magnetic flux density – Units 7. Examples for transformation of energy

Name of the lesson	AS-3 (Activities/Experiments – 4 Marks)	AS-5 (Diagrams/Figures – 4 Marks)
1. Heat	1. Thermal equilibrium 2. Different substances have different specific heat Values 3. Finding Specific heat of solid lead shots 4. Factors effect the Rate of Evaporation	1. Thermal equilibrium 2. Different substances have different specific heat values
3. Reflection of Light	1. Pin hole camera 2. Verification of Laws of reflection (Plane mirror) 3. Finding focal length of a concave mirror 4. Image distances for object at different places (Concave mirror)	1. Pin hole Camera 2. Finding focal length of a concave mirror 3. Useful rays to draw ray diagrams (Mirrors) 4. Ray diagrams for concave mirror / convex mirror
5. Refraction at Plane surfaces	1. Relation between angle of incidence and refraction (From Rarer to Denser medium) 2. Relation between angle of incidence and refraction (From Denser to Rarer medium) 3. Observing Total internal reflection 4. Finding refractive index of a glass slab	1. Optical fiber – Total internal reflection 2. Refraction through Glass slab
6. Refraction at Curved surfaces	1. Finding focal length of a convex lens 2. Image distances for object at different places (Convex lens) 3. Focal length of lens changes with respect to medium	1. Useful rays to draw ray diagrams (Lenses) 2. Ray diagrams for convex lens / concave lens
7. Human eye and Colourful world	1. Finding refractive index of Prism 2. Formation of Rainbow in Class room (2 Activities)	1. Human eye - structure 2. Myopia – property – Correction 3. Hypermetropia – property – Correction 4. Refraction through Prism 5. Formation of Rainbow
11. Electric Current	1. Experimental verification of Ohm's law 2. Resistance dependence upon Length /Area of cross section / Nature / Temperature	1. Experimental set up of Ohm's law / Graphs 2. Series / Parallel combination of Resistances
12. Electro-magnetism	1. Oersted Experiment 2. Experiment to prove Faraday's law	1. Block diagram of Electric motor 2. Block diagram of A.C. Generator 3. Block diagram of D.C. Generator

Name of the lesson	AS-2 (Questioning/Prediction)	AS-6 (Daily life uses)
1. Heat	1. Hot coffee cools down after some time. Guess 2. Water on the floor disappears after some time. Guess the reason. 3. Your friend is unable to find difference between Evaporation and boiling. Ask some questions.	1. Uses of evaporation in daily life 2. Appreciate the role of specific heat 3. Role of specific heat in keeping a watermelon cool for a long time after removing it from a fridge on a hot day? 4. If you are chilly outside the shower stall, why do you feel warm after the bath if you stay in the bathroom?
3. Reflection of Light	1. What happened if there are no mirrors ? Predict. 2. Concave mirror is not used as rearview mirror. Why ?	1. Uses of convex mirror and concave mirror 2. Appreciate the role of spherical mirrors 3. Why convex mirror used as rear view mirror ?
5. Refraction at Plane surfaces	1. Take a bright metal ball and make it black with soot in a candle flame. Immerse it in water. How does it appear and why? (Make hypothesis). 2. Predict some reasons that we can't shoot a swimming fish with out practice.	1. How do you appreciate the role of Fermat principle in drawing ray diagrams. 2. Why stars twinkling? 3. Why the objects behind fire appears swaying? 4. Why Diamonds glitters ? 5. Guess the situations that refractive ray doesn't deviate.
6. Refraction at Curved surfaces	1. Dinesh said,The convex lens made with glass behaves like concave lens when kept in water. What do you say ? 2. A convex lens is made up of three different materials. How many of images does it form? 3. Assertion (A): A person standing on land appears taller than his actual height to a fish inside a pond. Reason (R): Light bends away from the normal as it enters air from water. **Explain.**	1. Uses of convex lens and concave lens
7. Human eye and Colourful world	1. Why sky is blue ? 2. Why sky is white on sunny day ? 3. Why Sun is red in mornings and evenings ?	1. Role of Ciliary muscles 2. What happened when white paper is stained with oil ?
11. Electric Current	1. Why does a bird can't get shock even it sit on an electric wire ? 2. Why Filament is made with Tungsten ? 3. Which material is used to make fuses ? Why it should be used ?	1. How to overcome the problem of over load of electricity in daily life? 2. How do you appreciate the role of fuse in houses ?
12. Electro-magnetism	1. Observe the figure given. Magnetic lines are shown. What is the direction of the current flowing through the wire?. 	1. Applications of Faraday's law 2. How the world change due to relation between electric field and magnetic field.

Name of the lesson	AS-4 (Information Skills)	
1. Heat	1. Table of specific heat values Questions related to which gain heat quickly, Which takes more time to raise temperature, Which are used for cooking utensils ……..	
3. Reflection of Light	1. Tabular information having u, v and f values for concave mirror experiment Questions to find f, relation between u and v ……. 2. Magnification values Vs Properties of images and Types of mirrors table	
5. Refraction at Plane surfaces	1. Table of Refractive index values Questions related to which has more value, in which light travel slowly, which has less critical angle, ...	
6. Refraction at Curved surfaces	1. Tabular information having u, v and f values for concave mirror experiment Questions to find f, relation between u and v …….	
7. Human eye and Colourful world	1. Table contains defects of eye and correction methods	
11. Electric Current	1. Table of Specific resistance (Resistivity) values Questions related to which is best conductor, Which has more resistance, Which is used for filament, ... 2. Table contains measurements in Ohm's law experiment. Questions like which is ohmic, What is R value, relation between V and I……..	
12. Electro-magnetism	*****	

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