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**Max Time : 1 hr** **Class = 10th Science Test**  **Max Marks : 25**

**Human Eye and Colorful World**

1. Multiple choice Question: [ 1 x 5 = 5 ]
2. The image distance from the eye lens in the normal eye when we increase the distance of an object from the eye:

|  |  |
| --- | --- |
| a) increases | b) decreases |
| c) remains unchanged | d) depends on the size of eyeballs |

1. Person suffering from cataract has :

|  |  |
| --- | --- |
| a) elongated eyeballs | b) excessive curvtature of eye lens |
| c) weakened ciliary muscles | d) opaque eye lens |

1. The color of the light which is deviated the least by a prism in the spectrum of white light is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Red | b) green | c) Voilet | d) Yellow |

1. The color of the light which is deviated the most by a prism in the spectrum of white light is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Red | b) green | c) Voilet | d) Yellow |

1. A person cannot see objects distinctly kept beyond 2 nm. This defect can be corrected by using a lens of power:

|  |  |  |  |
| --- | --- | --- | --- |
| a) + 0.5 D | b) – 0.5 D | c) + 0.2 D | d) – 0.2 D |

1. A person is advised to wear spectalces with concave lens. What type of defect of vision is he suffering from? [ 1 ]
2. Can an observer see a rainbow on the Moon? [ 1 ]
3. What is the far point and near point of the human ear with normal vision? [ 1 ]
4. A person can see clearly only upto 3 m . Prescribe a lens for spectacles so that he can see clearly up to 12m. [ 1 ]
5. Why does the sky appear dark instead of blue to an astronaut? [ 2 ]
6. A person cannot see objects beyond 80 cm from his eyes while a person with normal eyesight can see objects easily placed upto 160 cm from his eyes. Find the nature, the focal length and the power of the correcting lens. [ 2 ]
7. A person needs a lens of power – 5.5 diopters for correcting his distant vision. For correcting his near vision he needs a lens of power + 1.5 diopters. What is the focal length of the lens required for correcting (i) Distant vision (ii) Near vision? [ 3 ]
8. A person cannot see object nearer than 75 cm from his eyes while a person with normal vision can see objects upto 25 cm from his eyes. Find the nature, the focal length and the power of the correcting lens used for the defective vision. [ 3 ]
9. Draw a ray diagram to explain the term of angle of deviation. [ 3 ]
10. Draw a labelled diagram of human eye. [ 3 ]