

CHOITHRAM SCHOOL MANIKBAGH INDORE**CLASS X Session: 2016-17****Subject: Science****Allotment Date: 13 /1/2017****Assignment No: IV****Submission Date:25/01/2017**

| S.No | Question | Marks | Level |
|-----------------------------|---|-------|------------------|
| OBJECTIVE TYPE | | | |
| 1. | Name the process of converting vegetable oil to vegetable ghee. | 1 | Knowledge |
| 2. | What is atmospheric refraction and dispersion of light? | 1 | Understanding |
| 3. | (a)What are the unit of inheritance in living organism? (b)Where are they located? | 1 | Hot |
| SHORT ANSWER TYPE I | | | |
| 4. | What is genetic drift? Specify its significance in evolution. | 2 | knowledge |
| 5. | A pin which is 2cm long is placed at a distance of 16cm from convex lens. Assuming it to be perpendicular to the principal axis, find the position, size and the nature of the image if the focal length of the lens is 12cm. | 2 | understanding |
| 6. | 1) A water tank appears to be 4m deep when viewed from the top. If refractive index of water is $\frac{4}{3}$, what is the actual depth of the tank? 2) A concave lens of focal length 15cm forms an image 10cm from the lens. How far the object placed from the lens? | 2 | logic |
| 7. | Give IUPAC name and draw the structure of three isomers represented by chemical formula C_4H_8 . | 2 | Hot |
| SHORT ANSWER TYPE II | | | |
| 8. | Name the organism Mendel used for his experiments. Explain about F1 and F2 progeny obtained by Mendel when he breed the tall and short varieties of the organism he experimented with. Mention the genotype and phenotypic ratio. | 3 | understanding |
| 9. | Give reason for the following_ (a)It is matter of chance whether a couple will give birth to boy of girl. (b)Wings of birds and insects are analogous organs. (c)Fore limbs of frog and bird are homologous. | 3 | Multi conceptual |
| 10. | A father fot his son admitted to a new school. However, after attending the school for two days the boy refused to go to the school. Upon enquiry he tolh his mother that few students of his class tease and harass him for dark skin colour. You being one of his class mates are fond of him and do not want him to leave the school. Answer the following: 1)Is it ethical to call someone based on his skin colour? Why? 2)Is it a inherited or acquired trait? Justify. 3)What would the school do to avoid such incidents? | 3 | Value based |
| LONG ANSWER TYPE | | | |
| 11. | What happens chemically when: a) ethanol is heated with alkaline potassium permanganate solution b) ethanoic acid reacts with sodium c) ethanol heated with concentrated sulphuric acid at 443K d) methane reacts with chlorine in presence of sun light e) ethyl acetate is hydrolyzed by alkali Give balanced chemical equation for the reaction | 5 | Logic |
| 12. | A) The far point of a person suffering from myopia is 2 metres from eye. Find the focal length and power of the corrective lens that will correct his vision. B) The near point of an elderly person is 50cm from the eye. Find the focal length and power of the corrective lens that will correct his vision? C) The refractive indices of the water and glass are $\frac{4}{3}$ and $\frac{3}{2}$ respectively. Find the speed of light in each. D) what is meant by scattering of light. Use this phenomena to explain why the clear sky appears blue or the sun appears reddish at sunrise? | 5 | Hot |