## HOLIDAY HOMEWORK

## CLASS:XA\&B

(May 2023)

9. An object 0.04 m high is placed at a distance of 0.8 m from a concave mirror of focal length 0.2 m . Find the position and size of the image formed.
10. An object is placed at a distance of 40 cm from a concave mirror of focal length 15 cm .If the object is displaced through a distance of 20 cm towards the mirror, by how much distance is the image displaced?
11. An erect image three times the size of the object is obtained with a concave mirror of radius of curvature 36 cm . What is the position of the object?
12. Calculate the distance $d$ so that a real image of an object at $0,15 \mathrm{~cm}$ in front of a convex lens of focal length 10 cm be formed at the same point $O$.
13. The radius of curvature of the mirror is 20 cm . Will the image be inverted or erect?
14. An object 2 cm high is placed at a distance of 16 cm from a concave mirror, which produces a real image 3 cm high. What is the focal length of the mirror? Find the position of the image.
15. An object is placed 18 cm in front of a mirror .If the image is formed at 4 cm to the right of the mirror, calculate its focal length .Is the mirror convex or concave? What is the nature of the image? What is radius of curvature of the mirror?
16. When an object is placed at a distance of 60 cm from a convex spherical mirror, the magnification produced is $1 / 2$. Where should the object be placed to get a magnification of $1 / 3$ ?
17. A thin rod of length $(f / 3)$ is placed along the principal axis of a concave mirror of focal length $f$ such that its image, which is real and elongated ,just touches the rod. What is the magnification?
18. A beam of light converges towards a point O , behind a convex mirror of focal length 20 cm . Find the nature and position of image if the point O is (a) 10 cm behind the mirror (b) 30 cm behind the mirror.
19. A plane mirror is placed 22.5 cm in front of a concave mirror of focal length 10 cm . Find where an object can be placed between the two mirrors, so that the first image in both the mirrors coincides.
20. A square wire of side 3 cm is placed 25 cm away from a concave mirror of focal length 10 cm . What is the area enclosed by the image of the wire? The center of the wire is on the axis of the mirror with its two sides normal to the axis.
Biology
\(\left.\begin{array}{l}Answer the following Qs. <br>
1. what are the type of common chemical reaction occurring in a <br>
living cell? <br>
2. What is the function of keeping KOH in the Bel- jar in the <br>
activity for finding that carbon dioxide is essential for <br>
photosynthesis? <br>
3. Desert plants have sunken stomata. How do they get carbon <br>
dioxide for photosynthesis? <br>
4. How do saliva help in digestion of starch? <br>
(Mr Johnson) <br>
5. How is the wall of stomach protected from the acid produced <br>
inside <br>
6. Bile does not contain any enzyme then how it is important for <br>

digestion in the upper part of small intestine?\end{array}\right\}\)| Chemistry |
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| \# Art integration project on Bihar where chemistry physics and |
| biology all will be covered. |
| \# Practice of Balancing chemical equation. |
| \# Assignment questions from chemical reactions and chemical |
| equation- Do all the NCERT questions of inside the chapter and at |
| the end of chapter of chemical reactions and equations chapter. |


| भूमिका |
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| परिचय (जन्म,मृत्यु,शिक्षा,आदि) |
| कार्य ,भारत के विकास में उनका योगदान, |
| निष्कर्ष। |
| कला समेकित योजना के अंतर्गत बिहार और मध्यप्रदेश की |
| कला ,खानपान ,साहित्यकार, |
| सौंदर्य आदि पर ब्रोशर बनाए। |
| अनुच्छेद लेखन। 120 शब्दो में वसुधैव कुटुंबकम् पर विचार व्यक्त करे। |
| व्याकरण में रचना के आधार पर वाच्य रूपांतरण। |


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| (Mrs Preeti Marwaha and Mrs. |
| Archana Khale ) |
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| Make a project file of SUSTAINABLE |
| depicting the photographs, Graphs etc. |
| Art Integration Theme - Pairing of M.P and Bihar . |

$\left.\begin{array}{|l|l|}\hline \text { Computer Science } \\ \text { (Mrs. Ridhima } \\ \text { Awasthi ) }\end{array} \quad \begin{array}{l}\text { Write a report on any place you visited with your } \\ \text { family and friends, Type in MS word and Create a } \\ \text { document by applying the following formatting } \\ \text { fecatures- }\end{array}\right\}$

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| MATHS <br> (Mr. Pradeep Barde ) | Activity 1 Find HCF and LCM of any 3 numbers using cutting and pasting method. Activity 2 Draw the graph of any two polynomials, Find their zeroes from the graph and verify the relationship between the zeroes and the coefficients of the polynomial. Assignment 1. <br> Q1. Prove that $\sqrt{ } 5$ is an irrational number. <br> Q2. Find the HCF and LCM of 240 and 6552 <br> Q3 if HCF of 408 and 1032 is expressed as 1032 $m-408 \times 5$ find $m$ <br> Q4 144 cartons of cock cans and 90 cartons of Pepsi cans are to be stack dinner canteen if each stack is of same height and is to contain curtains of the same drink what would be the greatest number of cartons each stack would have. Q5 express the following as the product of its prime factors $3825,5005,7429,556920,13915$ <br> Q6. Find the largest positive integer that will divide 398, 436, 542 leaving remainders 7, 11 and 15 respectively <br> Q7 solve the following system of equations graphically $X+y$ equal to 3 and $3 x-2 y=4$ Q8 using a single graph paper draw the graph of the following equations $2 y-x=8,5 y-x=14$ and $y-2 x=1$. Obtain the vertices of the triangle so formed. <br> Q9 solve the system of equations $x+3 y=6$ and $2 x-3 y=12$ graphically and hence find the value of a if $4 x+3 y=a$. <br> Q10 draw the graphs of $2 x+y=6$ and $2 x-y+2$ <br> $=0$. Shade the reason bounded by these lines and x -axis find the area of the shaded region. |

Compiled by: (Mrs Preeti Marwaha )

