

Holiday Home Work

Subject - Physics

Class - X APR

Q1. Define the following terms -

- (i) Centre of curvature
- (ii) Principal Axis
- (iii) Radius of curvature
- (iv) focal length
- (v) Principal focus

Q2. Draw a ray diagram by concave mirror when an object is kept at -

- (i) At infinity
- (ii) Beyond of C
- (iii) At C
- (iv) Between C & F
- (v) At F
- (vi) Between P and F

Also mention the nature, position and size of image formed.

Q3. Draw a ray diagram by convex mirror when an object is kept between infinity & pole of mirror. Also state nature, size and position of image so formed.

Q4. Which type of mirror is used in -

- (i) headlights in car
- (ii) solar furnaces
- (iii) rear view mirror

Q5. What do you understand by magnification. Write its SI unit.

Q6. Write mirror formula & solve the problems given in Pg.no 170.

OBX

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Holiday H.W. (2019-20)

Class - X - A

Subject - Biology

- ① Make a model of an open & closed stomatal pore.
- ② Draw and label human alimentary canal & human respiratory system on A4 size paper.
- ③ (i) How does nutrition take place in Amoeba? Explain with diagram?
(ii) What is the role of acid in our stomach?
(iii) What is the role of saliva in the digestion of food?
(iv) Differentiate between aerobic & anaerobic respiration?
Name some organisms that use the anaerobic mode of Nutrition.

H.H.W.

X-A

Sub: Comp.

Sheet
23-4-19

- ① Write the name of internet services with examples.
- ② Draw the window of e-learning website or SNS
- ③ Write the features of mobile technologies in 3G & 4G.

Chay

Tech. Dr.

विषय= हिंदी कक्षा- दसवीं; वर्ग- अ

प्र० १:- देशभक्ति से जुड़ी रुक (स्वचाचित)
कविता लिखिए।

प्र० २:- पन्द्रह अगस्त (स्वतंत्रता दिवस) पर
अपने विद्यालय में मोचित करने के
लिए रुक नाटक लिखिए।

प्र० ३:- पाठ रुक और दस के पृष्ठोंतर आद
करके लिखिए।

प्र०:- राजनीतिओं द्वारा धार्मिक आवादों भड़कना
आचित है अबवा अनुचित। अपने विचार
व्यक्त कीजिए।

संस्कृत - कक्षा- 10 c)

—प्रश्नधूम समाख्य उत्थेकल्प समाख्य कृते
दश-दश उद्घाहरणाति लिखन्तु।

Class - Xth A,
Subj - English

- Q.N. 1. Write helping verbs and main verbs of all tenses with five examples of each on the chart. These sentences should be positive, negative and interrogative.
- Q.N. 2. What are conjunctions? Write all conjunctions with examples separating into co-ordinate and sub-ordinate conjunctions.
- Q.N. 3. Nowadays people have the busiest life. They have no time to do exercises for being healthy. So write an article on the importance of exercise in the modern time on the basis of lesson 'A Triumph of Surgery' (150-200 words)
- Q.N. 4. You are the farmer and your crops have been lost. So write a complaint letter to the D.M of Singrauli describing the money that you have got less on the basis of 'A Letter to God.'

Holiday Home Work

Subject - Mathematics

Class-X

- Q1. The HCF of 45 and 105 is 50. find the LCM.
- Q2. Find the HCF and LCM for the no. 100 and 190.
- Q3. Write whether $\frac{\sqrt{45} + 3\sqrt{20}}{\sqrt{3}}$ on simplification give a rational no. or irrational number.
- Q4. What is the HCF of smallest prime number and smallest composite number.
- Q5. find the HCF of 1656 and 4025 by Euclid's division Algorithm.
- Q6. Show that $(\sqrt{3} + \sqrt{5})^3$ is an irrational no.
- Q7. show that 7^n cannot end with zero for any natural number n.
- Q8. If the HCF of 144 and 180 is expressed in the form of $13m-3$. find the value of m.
- Q9. find the value of $(-1)^n + (-1)^{2n} + (-1)^{2n+1} + (-1)^{4n+2}$ where n is any +ve odd integer.
- Q10. show that $7-9\sqrt{3}$ is an irrational number.
- Q11. Show that only one of the numbers n, (n+2) and (n+4) is divisible by 3.
- Q12. find the HCF by using Euclid's division algorithm of the numbers 92690, 7378 and 7161.
- Q13. find the greatest number of 6 digit exactly divisible by

Q14. Three bells toll at interval of 9, 12, and 15 minutes respectively. If they start tolling together at a time. After what time will they next toll together?

Q15. The HCF of 65 and 117 is expressible in the form of $65m - 117$. find the value of m. Also find the LCM of 65 and 117 by Prime factorisation method.

Q16. Find the HCF of 180, 252, and 324 by Euclid's Division Lemma as well as Prime factorisation method.

Q17. Show that the square of any positive odd integer is of the form $8m+1$ for same integer m.

Q18. Find the largest number that divides 31 and 99 leaving remainder 5 & 8 respectively.

Q19. For any +ve integer m prove that $m^3 - m$ is divisible by 6.

Q20. Prove that product of three consecutive +ve integers is divisible by 6.

Q21. Prove that $m^2 - m$ is divisible by 8 for any positive integer m.

Q22. Find the HCF of the numbers 154791, 6341 and 6339 by Euclid's Division Algorithm.

Q23. Express the HCF of numbers 72 and 124 as linear combination of 72 and 124.

Q24. Find the HCF of 81 and 237 and express it as linear combination of 81 and 237 i.e $\text{HCF}(81, 237) = 81x + 237y$ for some x and y. find the value of x and y and prove that it is not unit.

Q35. Show that there is no positive integer n for which $\sqrt{n-1} + \sqrt{n+1}$ is rational.

Q36. If the zeroes of polynomial $x^2 + 4x + 2a$ are α and $\frac{\alpha}{\alpha}$ then find the value of a .

Q37. If the sum and product of the zeroes are the polynomial $ax^2 - 5x + c$ is 10 each. Find the value of a & c .

Q38. If one zero of the quadratic polynomial $5x^2 - (k+2)x + 3$ is negative of others, find the value of k and zeroes.

Q39. Find the value of a if one zero of quadratic polynomial $ax^2 + (a-4)x + 3$ is reciprocal of other.

Q40. Show that $\frac{1}{2}$ and $-\frac{3}{2}$ are zeroes of the Polynomial $4x^2 + 4x - 3$. Verify the relationship between zeroes & coefficient of polynomial.

Q41. If $\sqrt{2}$ is a zero of polynomial $x^2 + Px + 8$. Find P and other zeroes.

Q42. If the zeroes of Polynomial $ax^2 + bx - 4$ are $-\frac{4}{5}$ and 1 . Find a^2 and b^2 .

Q43. If α and β are zeroes of Polynomial $x^2 - 4\sqrt{3}x + 3$ then find the value of $\alpha + \beta - \alpha\beta$.

Q44. If α and β are the zeroes of Polynomial $x^2 - 6x + k$ then find the value of k such that $\alpha^2 + \beta^2 = 40$.

Q45. If α and β are zeroes of Polynomial $3x^2 + 2x + 1$. Find the polynomial whose zeroes are $\frac{1-\alpha}{1+\alpha}$ and $\frac{1-\beta}{1+\beta}$.

Q36. If one zero of polynomial ax^2+bx+c is doubled of other.
Prove that $9b^2=9ac$.

Q37 If the zeroes of Polynomial x^2+ax+b are in the ratio $2:3$ then prove that $6a^2=25b$.

Q38 Given that the zeroes of cubic Polynomial $x^3-6x^2+3x+10$ are of the form a, atb, at^2b for some real no. a and b .
find the value of $a \& b$ as well as zeroes of given polynomial.

Q39: Obtained all the zeroes of the Polynomial $x^4+6x^3+2x^2-24x-20$ if two of its zeroes are 2 and -5 .

Q40: find all the zeroes of the Polynomial $3x^4-19x^3+14x^2+20x-16$.
if two of its zeroes are $3 \pm \sqrt{5}$.

Q41: Draw the graph of pair of eqn $2x+y=4$ and $2x-y=4$. Write
the co-ordinates of vertices formed by these lines and y-axis.
find the area of the triangle.

Q42: Solve the system of linear equation $2x-3y=3$ and $4x+y=13$
graphically and shade the region of these lines and y-axis.

Q43: Solve the following pairs of eqn graphically $2x+y=12$ and
 $x-y=1$ and shade the region bounded by these lines and
y-axis. Also find the area of triangle.

dAB ACTIVITY

c. chapter 1, 2 and 3.