

केन्द्रीय विद्यालय बुरहानपुर  
ग्रीष्मकालीन अवकाश गृह कार्य  
कक्षा दसवीं। विषय हिंदी

नोट - स्वच्छता का विशेष ध्यान रखें वर्तनी शुद्धता पर ध्यान दें।

प्रश्न 1- नेताजी का चश्मा पाठ से 20 बहुविकल्पीय प्रश्नों का निर्माण कीजिए।

प्रश्न 2- सूरदास के 'पद' पाठ से 20 बहुविकल्पीय प्रश्नों का निर्माण कीजिए।

प्रश्न 3- विद्यालय के रास्ते में हुए जलभराव की समस्या का समाधान कराने हेतु नगर पालिका अधिकारी को समस्या से अवगत कराते हुए एक पत्र लिखिए।

प्रश्न 4- सरल, संयुक्त एवं मिश्र वाक्य के 10 - 10 उदाहरण लिखिए।

प्रश्न 5-विद्यार्थी जीवन में 'सत्संगति का महत्व' विषय पर 2 पेज का एक अनुच्छेद लिखिए।

प्रश्न 6- एक रचना लिखिए जो स्वयं रचित हो।

विषय अध्यापक हिंदी- मोहम्मद अरशद मलिक

**SUBJECT:- MATHEMATICS**  
**CHAPTER 1: REAL NUMBERS**  
**LEVEL-1**

1. Find the HCF of 105 and 120 (Ans.15)
2. Find the prime factorization of 234. (Ans.  $2 \times 3^2 \times 13$ )
3. Find the LCM and HCF of the pair of integers 13,11 (Ans. 1, 143)
4. Find the LCM and HCF of the pair of integers 510, 92 using fundamental theorem of arithmetic.
5. If the LCM (91, 26) =182, then find the HCF (91, 26). (Ans. 13)
6. Find the LCM (96,408) if the HCF is 24. (Ans.1632)
7. Find LCM of 72, 80, and 120. (Ans.720 ,)
8. Prove that  $\sqrt{5}$  is irrational.

**LEVEL-2**

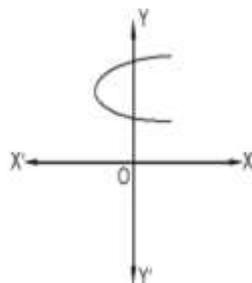
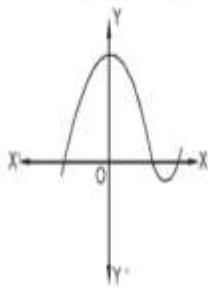
9. LCM of two numbers is 2079 and HCF is 27. If one number is 297, find the other number. (Ans: 189).
10. Explain why  $3 \times 11 \times 17 + 17 \times 7$  is a composite number.
11. Find the LCM and HCF of the pair of integers 120, 70. Also verify that  $\text{LCM} \times \text{HCF} = \text{product of numbers}$ .
12. Check whether  $(15)^n$  can end with the digit 0.
13. If  $d$  is the HCF of 45 and 27 find  $x$  and  $y$  satisfying  $d = 27x + 45y$ . (Ans:  $x = 2, y = -1$ )
14. Using prime factorization method, find HCF and LCM of 72, 126 and 168. Also show that  $\text{HCF} \times \text{LCM} \neq \text{product of the three numbers}$ .
15. In a school there are two sections A and B of class X. There are 48, 60 students in two sections respectively. Determine the least number of books required for the library so that the books can be distributed equally among the students. (Ans: 240)
16. Prove that  $5 + 7\sqrt{3}$  is an irrational number
17. If two positive integers  $p$  and  $q$  can be expressed as  $p = ab^2$  and  $q = a^3b$ ;  $a, b$  being prime numbers, Find the LCM ( $p, q$ ). (Ans:  $a^3b^2$ )

## CHAPTER 2: POLYNOMIALS

### LEVEL - 1

1. If  $p(x) = 2x^2 - 3x + 5$ , then find  $p(-1)$ . (ans : 10)
2. Find the zero of the polynomial  $3x + 2$ .
3. The following figure shows the graphs of  $y = p(x)$ , where  $p(x)$  is a polynomial.

Find the zeroes of the polynomial.

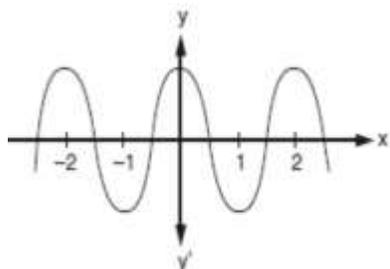


4. Find the zeroes of the polynomial  $2x^2 - 25$  (Ans.  $\pm \frac{5}{\sqrt{2}}$ )
5. Find the quadratic polynomial whose roots are  $3 + \sqrt{5}$  and  $3 - \sqrt{5}$  (Ans.  $x^2 - 6x + 7$ )

6. If one zero of  $2x^2 - 3x + k$  is reciprocal to the other, then find the value of  $k$   
(ans:  $k=2$ )
7. Find a quadratic polynomial whose sum and product of roots are  $2, \frac{-3}{5}$ .  
( Ans :  $(5x^2 - 10x - 3)$  )
8. If  $\alpha, \beta$  are the zeroes of the quadratic polynomial  $x^2 - 6x + a$ , find the value of  $a$   
If  $3\alpha + 2\beta = 20$ . (Ans:  $-16$ )

### LEVEL-2

11. If  $\alpha, \frac{1}{\alpha}$  are the zeroes of the polynomial  $4 - 2x + (k - 4)$ , find the value of  $k$ .  
(Ans:  $k=8$ )
12. The graph of  $y = f(x)$ , where  $f(x)$  is a polynomial in  $x$  is given below .Find the number of zeroes lying between  $-2$  to  $0$ .



13. Show that  $1, -1$  and  $3$  are the zeroes of the polynomial  $x^3 - 3x^2 - x + 3$ .
14. If  $(x + a)$  is a factor of  $2x^2 + 2ax + 5x + 10$ , find  $a$ . (ans:  $a=2$ )
- 15.. If  $\alpha$  and  $\beta$  are the zeroes of the quadratic polynomial  $f(x) = x^2 - 5x + 6$  then find the value of  $\frac{1}{\alpha} + \frac{1}{\beta} - \alpha\beta$ .  
(Ans :  $-31$ )

### Subject - Science

1. Write the observation, reaction and type of reaction involved in activities given in chapter 1.
2. Define all type of chemical reactions with examples.
3. Describe the process of nutrition in human beings with diagram.
4. What are the differences between Autotrophic nutrition and heterotrophic nutrition.
5. Differentiate between aerobic respiration and anaerobic respiration? 6.
6. Draw a flowchart of breakdown of glucose by various pathways.

SUBJECT - SOCIAL SCIENCE

CLASS – 10

Q.1 Classify the resources on the basis of exhaustibility and give two example of each ?

Q.2 Distinguish between the following

1.Potential and Developed Resources

2.Stock and Reserves

Q.3 Define the term National Income ?

Q.4 Define GDP ?

Q.5 Mention four types of power sharing ?

Q.6 Why the system of reserved constituencies is adopted in India ?

Q.7 Why was the demand to abolish the salt tax selected ?

Q.8 Why did Ghandhiji decide to call off the civil Disobedience Movement ?

**Subject – Artificial Intelligence**

Q-A MCQ ?

Q- 1 The “father of artificial intelligence” is;

a.Alan Turing

b. Charles Babbage

c. John McCarthy

Q-2 Blind search can be used for which of the following situation?

a. Real-Life simulation

b. Small search space

c. Advanced game theory

Q-3 In how many category processes is artificial intelligence classified in ?

a.5

b. 2

c. 3

Q-4 If a machine can change its course of action based on the external environment on its own, the machine is called ?

a. Mobile

b. Intelligent

c. Both A and B

Q-5 Which of the following is the common language for artificial intelligence ?

a. Python

b. JAVA

c. PHP

Q-6 Which of the following is not an application of artificial intelligence?

a. Computer vision

b. Natural language processing

c. Database

management system

Q-7 The proposition symbols in AI are ?

a. True and False

b. True

c. False

Q-8 Which of the following symbols in AL are logical symbols ?

a. Negation

b. Conjunction

c. All of the above

Q-9 Which of the following are informed search methods ?

a. Best first search

b. A\*Search

c. All of the above

Q-10 The name of the Artificial intelligence system developed by Daniel Bobrow was ?

a. Bacon

b. SIMD

c. STUDENT

Q-B Short Question Answer ?

1. Give some real world application of AI.
2. Which programming language is used for AI.
3. What is NLP ?
4. What do you understand by Artificial Intelligence?