PM SHRI K.V. MUZAFFARNAGAR [SHIFT 2]

SUMMER VACATIONS HOMEWORK (2026-27)

CLASS - 10 SUBJECT : COMPUTER – A.I.

1. Do all the work on A4 Size Chart Paper (White color) and keep in a transparent folder.

2. First page of file should contain- name of school- KVS MZN, Shift-2, Title - Summer Holiday Homework (2026-27), Subject – Computer – A.I.

Submitted to :
Mr. Ajay Kr. Goel
(Computer Instructor)

Submitted by:
Name of Student: .....
Class : ..... Section: ..... Roll No.:.....

ASSIGNMENTS

Q1. Write the Applications of A.I. ?

Q2. What do you mean by Intelligence and Artificial Intelligence ?

Q3. What do you mean by Computer Vision ?

Q4. Write the Stages of AI Project Cycle in Brief.

Q5. What is 4Ws Problem Canvas.

Note: Complete all your class work in this summer holidays.

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SUBJECT - ENGLISH

1. **Prepare a portfolio of your own.**
2. **Prepare one worksheets of the following grammar topics:**

   a) Subject-verb agreement **b) Reported speech** **c)Modals**

   d)Tenses **e) Determiners**

3.Write four following formal letters :

   a) Letter to Editor

   b) Letter of Complaint

   c) Letter to place order

   d) Letter of enquiry

4. **Write any five Analytical paragraphs.**
5. **Read 1 to 3 chapters from both the books and write central idea,theme of the chapters/poem in separate notebook.**
6. **Draw mindmaps of the chapters 1 to 3 in A4 size papers.**

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SUBJECT – YOGA

1.Write about yoga

Write 5-6 lines on :

- What is yoga.
- Improvements of yoga in daily life.
- Benefits of yoga for students.

2.Draw and explain any five yoga asanas:

Paste or draw pictures and write:

- Steps to do the asanas-
- Benefits of the asans-

Suggested asanas:

- Tadasana
- Vrikshasana
- Bhujangasana
- Paschimotasana
- Halasana

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3. Daily yoga practice chart.

Make a table and record your practice for 10 days.

Day.	Yoga practice.	Time
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

4. Write about paranayam.

- Anulom vilom
- Kapalbhati

5. Yoga slogans.

- " Yoga for healthy life".
- "Yoga brings peace".
- "Daily yoga,daily energy".

6.conclusion.

- Write 8-10 lines on how yoga helps maintain physical and mental health.

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SUMMER VACATIONS HOMEWORK (2026-27)

SUBJECT : SOCIAL SCIENCE

Completion of CW and HW of all the lessons completed in the month of the April.(As per split-up) Lessons:

1. **Development 2- Resources and development 3- Power sharing 4 Nationalism In Europe.**
2. **Thorough Reading of two Lessons -1. Nationalism in India 2- Forest and wild life resources(June- July syllabus)**

(Above mentioned lessons are portion for PT-1)

1 **- Map work for all the lessons-as per CBS map list in duplicate.**

2 **- Assertion and Reasoning based 5 questions for each above mentioned Lessons.(TYPED)**

3 **- Mind Map for the lessons-as a part of multiple assessment**

4 **- Assertion and Reasoning based 5 questions for each above mentioned Lessons.(TYPED)**

5 **Mind Map for the lessons-as a part of multiple assessment.**

6 **CBSE – recommended Project (Details and Instructions for the project already discussed in the class)**

Topics- Any one of the following:

1- **Consumer Rights**
2- **Social Issues**
3- **Sustainable development.**

Project has to be integrated by the Art (story/ poem/comic strip/ppt/skit/ collage/ drawings/ slogan/posters / News paper clipping/ Real life Examples/Cases studies etc.) and can be supported by small model by using eco friendly products.

Disaster Management Project- Compulsory

Project should cover the following 3 different aspects-

1- **Your role as a student for Disaster preparedness in school.**
2- **Suggestions for use of Technology during Disaster-(to disseminate information and coordinate relief efforts)**
3- **Environmental conservation and Disaster mitigation-Role of student(How they can contribute)**

NOTE:1-Projects should be hand written -A-4 size paper

2-Must be supported by Pictures/ Drawing/ Real incidents/ News Paper reference? Graphs/ ETC.

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SUMMER VACATIONS HOMEWORK (2026-27)

Subject - Mathematics

SECTION A (solve questions)

1. Find the HCF and LCM of 135 and 225.
2. Prove that $\sqrt{5}$ is irrational.
3. Prove that $13+6\sqrt{7}$ is irrational.
4. Find the HCF and LCM of 306 and 657 using prime factorization.
5. Show that $2+\sqrt{3}$ is irrational.
6. Show that the decimal expansion of 13/3125 terminates.
7. Check whether 6^n can end with the digit 0 for any natural number n.
8. Find the largest number that divides 245 and 1029 leaving remainder 5 in each case.
9. Show that HCF(65, 117) = HCF(117, 65).
10. If HCF of two numbers is 12 and their product is 1800, find their LCM.
11. Find the zeroes of the polynomial: $p(x) = x^2 - 5x + 6$.
12. Verify the relationship between zeroes and coefficients for: $2x^2 - 7x + 3$
13. Find a quadratic polynomial whose sum and product of zeroes are 3 and -10 respectively.
14. Find a quadratic polynomial whose zeroes are $5+3\sqrt{2}$ and $5-3\sqrt{2}$
15. Find the zeroes of the cubic polynomial: $3x^2 - 6x + 3$ and verify the relationship between zeroes and coffeicients.
16. If a and b are zeroes of the polynomial $x^2 - 7x + 10$ find a polynomial whose zeroes are:

    (i) a + 1 and b + 1
17. Find the quadratic polynomial whose one zero is 3 and sum of its zeroes is 7.
18. Determine the number of zeroes of the polynomial $y = x^2 - 4$ and also find them.
19. Find a quadratic polynomial with zeroes 2 and -1.
20. If one zero of the polynomial $3x^2 - kx + 1$ is 1, find the value of k.

SECTION B(ASSERTION AND REASON)

1. Assertion (A): The decimal expansion of 7/125 terminates.

   Reason (R): The denominator has only the prime factors 2 or 5.
2. Assertion (A): The decimal expansion of 13/24 is non-terminating recurring.

   Reason (R): The denominator has a prime factor other than 2 or 5.
3. Assertion (A): HCF of two numbers always divides their LCM.

   Reason (R): The product of two numbers is equal to the product of their HCF and LCM.
4. Assertion (A): The number $\sqrt{3}$ is irrational.

   Reason (R): It cannot be expressed as a ratio of two integers.

5. Assertion (A): A quadratic polynomial can have at most two zeroes.
   Reason (R): The degree of a polynomial determines the maximum number of zeroes.

SECTION C (CASE BASED QUESTION)

1. HCF and LCM in Daily Life

   Two school bells ring at intervals of 12 minutes and 18 minutes respectively. Both bells ring together at 8:00 AM.

Questions:

(a) What is the HCF of 12 and 18?

(i) 6 (ii) 3 (iii) 2 (iv) 9

(b) What is the LCM of 12 and 18?

(i) 24 (ii) 36 (iii) 48 (iv) 72

(c) After how many minutes will the bells ring together again?

(i) 12 (ii) 18 (iii) 36 (iv) 6

(d) At what time will they next ring together?

(i) 8:18 AM (ii) 8:24 AM (iii) 8:36 AM (iv) 9:00 AM

2. Graph of Polynomials—

   A graph of a polynomial intersects the x-axis at three distinct points -1,0,2: .

   A student tries to form the polynomial and analyse its zeroes.

Questions:

(a) How many zeroes does the polynomial have?

(i) 1 (ii) 2 (iii) 3 (iv) Infinite

(b) Which of the following could be the polynomial?

(i) $(x + 1)(x) (x – 2)$ (ii) $(x - 1)(x - 2)$ (iii) $x^2 - 1$ (iv) $x+2$

(c) What is the degree of the polynomial?

(i) 1 (ii) 2 (iii) 3 (iv) 4

(d) If a graph touches but does not cut the x-axis, then:

(i) It has no zeroes (ii) It has one repeated zero

(iii) It has two distinct zeroes (iv) It has infinite zeroes

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SUMMER VACATIONS HOMEWORK (2026-27)

Subject - Hindi

गृहकार्य विवरण:

1. **विज्ञापन निर्माण:** 'हर्बल टूथपेस्ट' और 'स्पोर्ट्स साइकिल' के विज्ञापन तथा 'हिंदी पुस्तक प्रदर्शनी' का पोस्टर।
2. **सूरदास के पद:** उद्धव और गोपियों के बीच हुए संवाद को अपनी भाषा में लिखें और स्पष्ट करें कि गोपियों ने उद्धव के ज्ञान मार्ग को क्यों नकारा?
3. **नेताजी का चश्मा:** 'कैप्टन चश्मेवाले' के चरित्र की किन्हीं तीन विशेषताओं का वर्णन कीजिए। आपके अनुसार आज के दौर में देशभक्ति का क्या स्वरूप होना चाहिए?
4. **बालगोबिन भगत:** बालगोबिन भगत के व्यक्तित्व और उनकी गायकी की उन विशेषताओं का उल्लेख करें जिन्होंने उन्हें एक साधारण गृहस्थ से 'साधु' बना दिया।
5. **व्याकरण:** 'रचना के आधार पर वाक्य भेद' (सरल, संयुक्त, मिश्र) का एक तुलनात्मक चार्ट बनाएँ। पाठ्यपुस्तक से 5 मिश्र वाक्यों को सरल और संयुक्त वाक्यों में रूपांतरित करें।
6. **औपचारिक लेखन:** नगर निगम अधिकारी को 'जल भराव' की समस्या हेतु पत्र लिखें। मित्र को 'परीक्षा की तैयारी' हेतु सुझाव देते हुए ई-मेल लिखें।
7. **अनुच्छेद लेखन:** 'डिजिटल इंडिया: बढ़ते कदम' विषय पर लगभग 200-250 शब्दों में एक प्रभावशाली अनुच्छेद लिखें।
8. **रचनात्मक परियोजना (नया):** 'क्षितिज' भाग-2 के किन्हीं दो कवियों/लेखकों का परिचय चित्रों सहित एक सुंदर स्क्रैपबुक में तैयार करें।
9. **पठन एवं श्रवण कौशल (नया):** प्रतिदिन हिंदी समाचार पत्र पढ़ें और सप्ताह की किन्हीं दो मुख्य घटनाओं पर अपनी प्रतिक्रिया (टिप्पणी) लिखें।

विशेष निर्देश:

- समस्त कार्य ए-4 साइज पेपर पर स्पष्ट एवं सुंदर लिखावट में करें।
- चित्रों, स्केच और रंगीन बॉर्डर का रचनात्मक प्रयोग कर कार्य को आकर्षक बनाएँ।

दशरथ मीणा

विषय अध्यापक (हिंदी)

केन्द्रीय विद्यालय मुजफ्फरनगर (द्वितीय पाली)

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SUBJECT - SCIENCE

Chapters Covered:

1. Chemical Reactions and Equations
2. Life Processes
3. Light – Reflection and Refraction
4. Chemical Reactions and Equations • Write and balance 10 chemical equations.
   • Identify the type of each reaction.
   • Paste or draw related daily life examples.
5. Life Processes • Draw neat labelled diagrams of:

10Science.jpeg
Type: JPEG File
Size: 167 KB
Dimension: 1112 x 1584 pixels

   • Heart
   • Digestive System
   • Nephron • Write short notes on:
   • Nutrition
   • Respiration
   • Transportation
   • Excretion

3. Light – Reflection and Refraction • Draw ray diagrams of concave mirror, convex mirror and refraction through glass slab.
   • Solve 5 numericals based on mirror/lens formula.
4. National Children's Science Congress (NCSC) Prepare a project file on any one topic: • Water Conservation
   • Plastic Waste Management
   • Air Pollution
   • Rainwater Harvesting

Include: • Aim
• Survey
• Observation
• Conclusion
• Pictures

5. INSPIRE Award Write one innovative idea mentioning: • Problem
   • Solution
   • Materials Required
   • Benefits

Examples: • Smart Water-Saving Tap
• Automatic Garbage Segregator
• Solar School Bag

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SUMMER VACATIONS HOMEWORK (2026-27)

Class: X Geography and Civics

Geography

Make a Note on the following given questions.

1. What are the land use patterns in India?
2. Why is land called a resource?
3. What are the differences between Khadar and Bhangar?
4. What are the types of soil found in India?
5. Show all types of soil on the political map of India.
6. Why is land conservation important for us? Discuss.

Civics

1. On the map of Sri Lanka, show the area of all ethnic communities.
2. On the political map of Belgium, show the area of all ethnic communities with their percentage.