

## **HOLIDAY HOMEWORK-2021-22**

### **CLASS - X**

#### **ENGLISH**

1. We have travelled from the stone age to the age of computers. There has been an explosion of technology in the field of science. Write an article in about 100-150 words on the topic “The future of information Technology”.

2. It is a good time to indulge in some creativity; write a short story.

#### **MATHEMATICS**

**Q.1** Given that  $HCF(x,y)=3$ , find the  $LCM(x,y)$ . If  $xy = 180$

**Q.2** Find a quadratic polynomial, the sum and product of whose zeroes are  $-5$  and  $6$  respectively.

**Q.3** Check whether the given equation  $(x-2)(x+1) = (x-1)(x+3)$  is a quadratic equation.

**Q.4** Find the discriminant of the quadratic equation  $2x^2 - 4x + 3 = 0$ , and hence find the nature of its roots.

**Q.5** Prove that  $\sqrt{3}$  is an irrational number.

**Q.6** The decimal representation of  $\frac{13}{3125}$  will have a terminating decimal expansion or a non-terminating repeating decimal expansion.

**Q.7** Find a quadratic polynomial, the sum and product of whose zeroes are  $-5$  and  $6$ , respectively.

**Q.8** Explain why  $3 \times 5 \times 7 + 9 \times 7$  is a composite number.

**Q.9** Find the point on the  $x$ -axis which is equidistant from the points  $A(7,6)$  and  $B(-3,4)$ .

**OR**

Find the ratio in which the point  $P(m,6)$  divides the line segment joining the points  $A(-4,3)$  and  $B(2,8)$ . Also, find the value of  $m$ .

**Q.10** If  $\alpha$  and  $\beta$  are zeroes of the polynomial  $p(x) = 3x^2 - 4x - 7$ , find the value of  $\frac{1}{\alpha} + \frac{1}{\beta}$ .

**Q.11** Solve:  $4x^2 - 2(a^2 + b^2)x + a^2b^2 = 0$

**(OR)**

In a class test, the sum of Kamal's marks in Mathematics and English is 40. Had he scored 3 more marks in Mathematics and 4 less in English the product the marks in both the tests would have been 360. Find the marks obtained by him in the two subjects separately.

**Q.13** Find the LCM and HCF of 65 and 117 by prime factorization method and verify that  $LCM \times HCF = \text{Product of two numbers}$ .

**Q14** Find the value of y for which the distance between the points P(2, - 3) and Q(10, y) is 10 unit.

**Q.15** Find the zeroes of quadratic polynomial  $x^2 + 7x + 10$ , and verify the relationship between the zeroes and the coefficients.

## SCIENCE

### PHYSICS

- Note down the following experiment in your lab manual notebook.

**Aim of the Experiment:** Determination of the focal length of:

- Concave mirror
  - Convex lens
- by obtaining the image of a distant object.

- Aim of the Experiment:** Finding the image distance for varying object distances in case of a convex lens and drawing corresponding ray diagrams to show the nature of image formed.

- Prepare a project on the topic “The impact of increasing demand of energy on environment.”

**Your project file must contain**

|                          |  |
|--------------------------|--|
| <b>1. Cover page</b>     | <b>6. Energy Resources</b>                               |
| <b>2. Content</b>        | <b>7. Effect on environment</b>                          |
| <b>3. Acknowledgment</b> | <b>8. An innovative solution to overcome the problem</b> |
| <b>4. Abstract</b>       | <b>9. Conclusion</b>                                     |
| <b>5. Introduction</b>   | <b>10. Bibliography</b>                                  |

### CHEMISTRY

- Prepare the activity series of metals with the help of clay or balls made from foam. Paint it with different colours for identification and arrange in decreasing order of the reactivity.

2. Note down the following experiment in your lab manual notebook.  
**Aim of the Experiment:** Performing and observing the following reactions and classifying them into:
- A. Combination reaction
  - B. Decomposition reaction
  - C. Displacement reaction
  - D. Double displacement reaction
    - (i) Action of water on quicklime
    - (ii) Action of heat on ferrous sulphate crystals
    - (iii) Iron nails kept in copper sulphate solution
    - (iv) Reaction between sodium sulphate and barium chloride solutions
3. **Aim of the Experiment:** Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:
- i)  $\text{ZnSO}_4(\text{aq})$
  - ii)  $\text{FeSO}_4(\text{aq})$
  - iii)  $\text{CuSO}_4(\text{aq})$
  - iv)  $\text{Al}_2(\text{SO}_4)_3(\text{aq})$
- Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.

## **BIOLOGY**

1. Note the following practical in your Biology practical file and perform on O-labs as shown by your teacher.

Object : Experimentally show that carbon dioxide is given out during respiration.

2. Make an assignment / poster / ppt on “Black Fungus”-it’s causes, symptoms and precautions

## **SOCIAL SCIENCE**

***Note: Students are advised to do one of the following***

- 1) Make a poster on consumer Awareness
- 2) What do you understand by Consumer Right?
- 3) Examples of people’s participation for conservation of Natural Resources
- 4) What are the guidelines provided by World Health Organisation WHO, protection against Covid19

***Submit file to me***

## HINDI

प्रश्न 1. - हमारे देश में कितने वृद्धाश्रम हैं इसकी जानकारी प्राप्त करके लिखिए और वृद्धाश्रम की बढ़ती संख्या पर चिंता व्यक्त करते हुए निबंध लिखें-

प्रश्न 2. चित्रों की सहायता से लघुकथा लिखिए –

प्रश्न 3. एक्सेल मोबाइल फ़ोन बनाने वाली कंपनी के लिए एक विज्ञापन तैयार कीजिए।

प्रश्न 4. परीक्षा प्रवेश-पत्र गुम हो जाने के विषय में सूचना तैयार कीजिए -

## URDU

۱۔ سرسید احمد خان کی تصویر/slogan یا thoughts ایک sheet پر لکھ کر pdf بنا کر بھیجیے۔

۲۔ علامہ اقبالؒ کی تصویر /اشعار/slogan یا thoughts ایک sheet پر لکھ کر pdf بنا کر بھیجئے۔

۳۔ اپنے پسندیدہ شاعر کے پانچ اشعار ایک صفحہ پر مع شاعر کے نام کے لکھیے۔

۴۔ جو اسباق آپ پڑھ چکے ہیں انکے الفاظ و معانی اور سوال و جواب یاد کیجیئے۔

\*نوٹ: سوال نمبر "۱" یا "۲" اور "۳" کے جواب کو pdf بنا کر بھیجیئے گا۔

**ARABIC**

Essay Writing on any two of the following topics (words' limit: 90-100)

١. القلعة الحمراء
٢. جامعة علي كراه الإسلامية
٣. المسجد الأقصى

**HEALTH AND PHYSICAL EDUCATION (HPE)**

**X-A**

| Roll no. | HPE Project<br>(write about 10 to 15 pages)                              |
|----------|--|
| 1.       | Swachha Vidyalaya Swachha Bharat   |
| 2.       | Dignity Of Labour .  |
| 3.       | Empathy  |
| 4.       | Care For Homeless Children   |
| 5.       | Being Safe And Responsible First Aid                                     |
| 6.       | Environment Conscious Citizens As Part Of Eco Clubs                      |
| 7.       | First Aid Awareness raising Demonstration                                |
| 8.       | Preparation Of Family Budget And Maintenance Of Daily Household Accounts |
| 9.       | Running School Café With Focus On Nutrition                              |

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| 10. | School Gardening Project  |
| 11. | Adopting An Orphanage For conducting joyful activities                                    |
| 12. | School Water Use Audits   |
| 13. | Khelo India Program   |
| 14. | Meaning And Importance Of Yoga  |
| 15. | Home Water Use Audits   |
| 16. | Meaning And Importance Of Physical Fitness, Wellness And Lifestyle                        |
| 17. | Setting Up rainwater harvesting structures  |
| 18. | Leadership Qualities And Role Of a Leader   |
| 19. | Project on indigenous Methods Of Water conservation                                       |
| 20. | Safety measures To Prevent Sports Injuries  |
| 21. | Metering Use of Water Saving devices/Taps And ensuring no Leakages in Plumbing Pipes etc. |
| 22. | Balanced Diet And Nutrition Macro And Micro Nutrients                                     |
| 23. | Causes Of Disability  |
| 24. | Project on awareness and Planting drought prone / native plants / trees                   |
| 25. | Reduce , Recycle, Reuse (most important 3R s) And Now Respect                             |
| 26. | Motor Development In Children   |
| 27. | Yoga For Preventing Obesity   |
| 28. | Postural Deformities And Their Corrective Measures  |
| 29. | Project on Recycling of Water-example from RO plants, etc.                                |
| 30. | Motor Fitness Test / Khelo-India National Fitness Test                                    |
| 31. | How The virus That causes COVID-19 differs from other corona viruses                      |
| 32. | Meaning And Importance Of Physical Fitness, Wellness And Lifestyle                        |

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| 33. | Corona virus (covid-19) Infection control and prevention measures |
| 34. | Yoga for Preventing Asthma  |
| 35. | Motor Development In Children                                     |
| 36. | How to Protect Yourself against COVID- 19                         |
| 37. | Reduce , Recycle, Reuse (most important 3R s) And Now Respect     |
| 38. | Yoga for Preventing Obesity                                       |
| 39. | Swachha Vidyalaya Swachha Bharat                                  |
| 40. | Dignity Of Labour .   |
| 41. | Empathy   |
| 42. | Care For Homeless Children  |
| 43. | Being Safe And Responsible First Aid                              |

### **X-B**

| <b>Roll no.</b> | <b>HPE Project (write about 10 to 15 pages)</b>                          |
|-----------------|--|
| 1.              | Environment Conscious Citizens As Part Of Eco Clubs                      |
| 2.              | First Aid Awareness raising Demonstration                                |
| 3.              | Preparation Of Family Budget And Maintenance Of Daily Household Accounts |
| 4.              | Running School Café With Focus On Nutrition                              |
| 5.              | School Gardening Project   |
| 6.              | Adopting An Orphanage For conducting joyful activities                   |
| 7.              | School Water Use Audits  |
| 8.              | Khelo India Program  |
| 9.              | Meaning And Importance Of Yoga   |
| 10.             | Home Water Use Audits  |

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| 11. | Meaning And Importance Of Physical Fitness, Wellness And Lifestyle                                 |
| 12. | Setting Up rainwater harvesting structures   |
| 13. | Leadership Qualities And Role Of a Leader  |
| 14. | Project on indigenous Methods Of Water conservation  |
| 15. | Safety measures To Prevent Sports Injuries   |
| 16. | Metering Use of Water Saving devices/Taps And ensuring no Leakages in Plumbing Pipes etc.          |
| 17. | Balanced Diet And Nutrition Macro And Micro Nutrients  |
| 18. | Causes Of Disability   |
| 19. | Project on awareness and Planting drought prone / native plants / trees                            |
| 20. | Reduce , Recycle, Reuse (most important 3R s) And Now Respect                                      |
| 21. | Motor Development In Children  |
| 22. | Yoga For Preventing Obesity  |
| 23. | Postural Deformities And Their Corrective Measures   |
| 24. | Project on Recycling of Water-example from RO plants, etc.   |
| 25. | Motor Fitness Test / Khelo-India National Fitness Test   |
| 26. | How The virus That causes COVID-19 differs from other corona viruses                               |
| 27. | Projects On Understanding Water Pollution  |
| 28. | Corona virus (covid-19) Infection control and prevention measures                                  |
| 29. | Importance Of Physical Fitness , Wellness And Healthy Lifestyle                                    |
| 30. | Olympic Symbol, Torch , Moto, Oath   |
| 31. | How to Protect Yourself against COVID- 19  |
| 32. | Qualities Of A Leader OR Captain   |
| 33. | Visiting municipal Water treatment and supply Plants and monitoring Water Quality at school / home |



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| 34. | Environment Conscious Citizens As Part Of Eco Clubs                      |
| 35. | Yoga for Preventing Asthma   |
| 36. | Preparation Of Family Budget And Maintenance Of Daily Household Accounts |
| 37. | Running School Café With Focus On Nutrition                              |
| 38. | School Gardening Project   |
| 39. | Adopting An Orphanage For conducting joyful activities                   |
| 40. | School Water Use Audits  |

**X-C**

| <b>Roll No.</b> | <b>HPE Project (write about 10 to 15 pages)</b>                          |
|-----------------|--|
| 1.              | Swachha Vidyalaya Swachha Bharat   |
| 2.              | Dignity Of Labour .  |
| 3.              | Empathy  |
| 4.              | Care For Homeless Children   |
| 5.              | Being Safe And Responsible First Aid                                     |
| 6.              | Environment Conscious Citizens As Part Of Eco Clubs                      |
| 7.              | Balanced Diet  |
| 8.              | Preparation Of Family Budget And Maintenance Of Daily Household Accounts |
| 9.              | Running School Café With Focus On Nutrition                              |
| 10.             | School Gardening Project   |
| 11.             | Adopting An Orphanage For conducting joyful activities                   |
| 12.             | School Water Use Audits  |
| 13.             | Khelo India Program  |

|     |   |
|-----|---|
| 14. | Meaning And Importance Of Yoga  |
| 15. | Home Water Use Audits   |
| 16. | Meaning And Importance Of Physical Fitness, Wellness And Lifestyle                        |
| 17. | Setting Up rainwater harvesting structures  |
| 18. | Leadership Qualities And Role Of a Leader   |
| 19. | Project on indigenous Methods Of Water conservation                                       |
| 20. | Safety measures To Prevent Sports Injuries  |
| 21. | Metering Use of Water Saving devices/Taps And ensuring no Leakages in Plumbing Pipes etc. |
| 22. | Balanced Dite And Nutrition Macro And Micro Nutrients                                     |
| 23. | Causes Of Disability  |
| 24. | Project on awareness and Planting drought prone / native plants / trees                   |
| 25. | Reduce , Recycle, Reuse (most important 3R s) And Now Respect                             |
| 26. | Motor Development In Children   |
| 27. | Yoga For Preventing Obesity   |
| 28. | Postural Deformities And Their Corrective Measures  |
| 29. | Project on Recycling of Water-example from RO plants, etc.                                |
| 30. | Motor Fitness Test / Khelo-India National Fitness Test                                    |
| 31. | How The virus That causes COVID-19 differs from other corona viruses                      |
| 32. | Environment Conscious Citizens As Part Of Eco Clubs                                       |
| 33. | Types of Disorders  |
| 34. | Nutritive components of Diet  |
| 35. | Understanding about ground Water Table  |
| 36. | How to Protect Yourself against COVID- 19   |

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|-----|----------------------------|
| 37. | Yoga For Preventing Asthma |
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### **COMPUTER**

Make an attractive chart or PowerPoint of Microsoft operating System and Mobile operating system.

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