



Rich Harvest Public School

HOLIDAY HOMEWORK (2022-23)

CLASS: IX

*** Note:**

The holiday homework should be done on registers/notebooks as per the given instructions & must be uploaded on MS TEAMS (Assignment Sections)

ENGLISH

With reference to text book solve the following Questions (To be done in notebook)

1. Who was county inspector? What did he say to Margie's mother?
2. Where was the new kind of school situated? And what kind of teachers taught in new schools?
3. What does the road signify in the poem "The road not taken"?
4. How does Evelyn inspire the people around her?
5. Even after humongous achievements, Ustad Bismillah Khan remain close to his roots. Comment.
6. Do you think music is an important art form and must be introduced to children in early age? Why and why not?
7. Based on your reading of the chapter give a brief description of the fair that the child visited with his parents.
8. Do you think that the child was greedy? Give two reasons to support your answer.

WRITING AND READING SKILLS (To be done on A-4 Size sheets)

1. Maintain a journal and pen down your thoughts on day-to-day life. Minimum 10 entries.
2. What's a vacation without story books?
Create your own story book with at least 10 pages. All the characters, places and incidents can be entirely imaginary. Add pictures to your story book wherever suitable.
3. Write a blog on any text/author that you have read in the syllabus and briefly describe what you like/dislike about the text. You can be as creative as you want.
4. Write an article for your school magazine on any one of the following topics:
 - a. XENOPHOBIA IS EXTREME FORM OF NATIONALISM
 - b. REDUCING CARBON FOOTPRINTS
 - c. IMPACT OF TECHNOLOGY ON LIFESTYLE CHANGES

हहदी

1. प्रेमचंद्र का कोई उपन्यास पढ़ें और उसके सभी पात्रों का चरित्र चित्रण A4 साइज शीट पर लिखें
2. दरू दशन पर ददखाए जाने वािे ववज्ञापनों का बढता प्रभाव ववषय पर अध्यापक और बच्चों के बीच हएु वाताशाप को संवाद शैिी में लिखखए
3. जीवन में और अथवा असफिता हमें बहुत कु छ लसखा जाती है इस ववषय पर अपने ववचार लिखखए
4. पाठ 1 के सभी प्रश्न उत्तर याद करें
5. अनुशासन जीवन को सफिता की ऊं चाइयों पर िे जाता है अपने ववचार तक सदहत लिखें
6. समास और उस के भेद की पररभाषा लिखे और उस के चार चार उदाहरण लिखे

MATHEMATICS

Make a Chart, Project & Model on the topics as per the Roll No. assigned.

I.MODELS

- (Roll No. 1 to 15)-To prepare model of Number System.
- (Roll No. 16 to 30)-To make spiral of $\sqrt{7}$ by using thread.
- (Roll No. 31 to 45)-Relate polynomial to daily life

II.PROJECT FILE

Topic should be properly explained, hand written with diagrams, Graph and pictures, facts & latest related research.

- (Roll No. 1 to 25)-Origin and development of Number System.
- (Roll No. 26 onward)-Concept of Rational and Irrational numbers.

III.CHARTS

- (Roll No. 1 to 15)-Algebraic Identities
- (Roll No. 16 to 30)-Formulae related to Surface area and volume.
- (Roll No. 31 to 45)Kinds of Quadrilaterals with properties

ASSIGNMENT

SECTION A (Weightage: 1 mark)

1. If $8^{x+1}=64$, what is the value of 3^{2x+1} ? (i) 1 (ii) 3 (iii) 9 (iv) 27
2. Which of the following is irrational ?
(i) 0.14 (ii) 0.1416 (iii) 0.1416 (iv) 0.1014001400014....
3. Which of the following is rational?
(i) $\sqrt{3}$ (ii) $\sqrt{4}$ (iii) $\frac{4}{0}$ (iv) $\frac{0}{4}$

4. $\sqrt{2}$ is a polynomial of degree?
(i) 1 (ii) 2 (iii) 0 (iv) 3
5. Every rational number is a
(i) natural number (ii) real number (iii) integer (iv) whole number
6. Express 0.3 in p / q form.
7. Find the value of
 $(3^0 + 2^0) / 5^0$
8. Find the decimal expansion of:
a) $8/3$ b) $2/11$ c) $-16/45$ d) $22/7$
9. Find the degree of the following polynomial:
(i) 15 (ii) x (iii) $x + x^2$ (iv) y
10. Simplify $13^{1/5} / 13^{1/3}$

SECTION B (Weightage : 2 mark)

11. Represent $\sqrt{6}$, $\sqrt{7}$ & $\sqrt{8}$ on the number line.
12. Is the expression $3\sqrt{t} + t\sqrt{2}$ polynomial in one variable or not? Give reasons.
13. Check whether -2 and 2 are zeros of the polynomial $x + 2$
14. Find the remainder when $x^3 - ax^2 + 6x - a$ is divided by $x - a$.
15. Use factor theorem to determine that $x - 3$ is factor of $x^3 - 4x^2 + x + 6$
16. Insert 10 rational numbers between $-3/11$ and $8/11$
17. Express each in p/q form:
(2 marks each) a) 15.725 b) 8.0025 c) -25.6875 d) 0.585 e) 23.43
18. Find the value of k if $x - 3$ is a factor of $k^2x^3 - kx^2 + 3kx - k$
19. Find the dimensions of a cuboid if its volume is $3x^2 - 12x$
20. Evaluate (i) $(30)^3 + (20)^3 - (50)^3$ (ii) $(-12)^3 + (7)^3 + (5)^3$

SECTION C (Weightage : 3 mark)

21. Simplify the following expressions:
(3 marks each)
a) $(\sqrt{3} + \sqrt{7})^2$ b) $(\sqrt{5} - \sqrt{3})^2$ c) $(2\sqrt{5} + 3\sqrt{2})^2$
22. Rationalise the denominator and simplify
a) $(\sqrt{3} - \sqrt{2}) / (\sqrt{3} + \sqrt{2})$ b) $(5 + 2\sqrt{3}) / (7 + 4\sqrt{3})$ c) $(1 + \sqrt{2}) / (3 - 2\sqrt{2})$
23. Write in expanded form:
a) $(2x + 3y)^3$ b) $(3x - 2y)^3$ c) $(7a + 5b)^3$
24. If $2x + 3y = 13$ and $xy = 6$, find the value of $8x^3 + 27y^3$
25. Evaluate: a) $(1002)^3$ b) $(999)^3$ c) $(598)^3$
26. Find the following products:
(3 marks each) a) $(x + 3y)(x^2 - 3xy + 9y^2)$

27. b) $(7a - 5b)(49a^2 + 35ab + 25b^2)$

28. Find the following products:

(3 marks each)(i) $(x+y+2z)(x^2 + y^2+4z^2-xy -2yz -2zx)$

(ii) $(2x-y+3z)(4x^2+y^2+9z^2+2xy+3yz-6xz)$

28. Factorise : a) $4\sqrt{3}x^2 + 5x-2\sqrt{3}$ b) $5\sqrt{5}x^2+30x+8\sqrt{5}$

29. Factorise : a) p^3-512q^3 b) $2\sqrt{2}a^3 +8b^3 -27c^3 + 18abc$

30. Find the remainder when $f(x) = x^3 - 6x^2 + 2x - 4$ is divided by $g(x)=1-3x$

SECTION D (Weightage : 4 mark)

31. If $x = 3 + \sqrt{8}$, find $x^2 + (1/x^2)$

32. Solve $[(\sqrt{5} - 2)/(\sqrt{5} + 2)] - [(\sqrt{5} + 2)/(\sqrt{5} - 2)]$

33. Factorise $a^7 - ab^6$

34. Simplify :

(i) $[1/(1+\sqrt{2})] + [1/(\sqrt{2}+3)] + [1/(\sqrt{3}+\sqrt{4})] + [1/(\sqrt{4}+\sqrt{5})]$

(ii) $4 + \sqrt{5}$

$5 + 4 - \sqrt{54} - \sqrt{5} + 4 + \sqrt{5}$

35. If $(x + 5)$ is a factor of $x^3 + 2x^2 - 13x + 10$, find other factors.

36. Rationalise

(i) $[4 / (2 + \sqrt{3} + \sqrt{7})]$ (ii) $[(3\sqrt{2} - 2\sqrt{3}) / (3\sqrt{2} + 2\sqrt{3})] + [\sqrt{12} / (\sqrt{3} - \sqrt{2})]$

37. If $(x + y + z) = 0$, show that $x^3 + y^3 + z^3 = 3xyz$

38. Factorise (i) $4a^2 - 9b^2 - 2a - 3b$ (ii) $a^2 - b^2 - 2(ab - ac + bc)$

(4 marks each) 39. Without actual division, prove that $2x^4 - 6x^3 + 3x^2 + 3x - 2$ is exactly divisible by $x^2 - 3x + 2$

39. Plot the following points on the graph and write in which quadrant or on

which axis they lie. $(2,3), (3,-4), (7,-2), (3,0), (4,7), (5,-5), (2,0), (0,5), (0,-$

$2), (0,0), (1,4), (3,4), (-5,4)$

SCIENCE

CHEMISTRY: -

(1) Give the reason of the following: -

(a) Salt and sugar are solid but they take up the shape of the container.

(b) Sponge though compressible is a solid.

(c) Smell of lighted incense sticks spreads several meters away.

(2) Convert: -

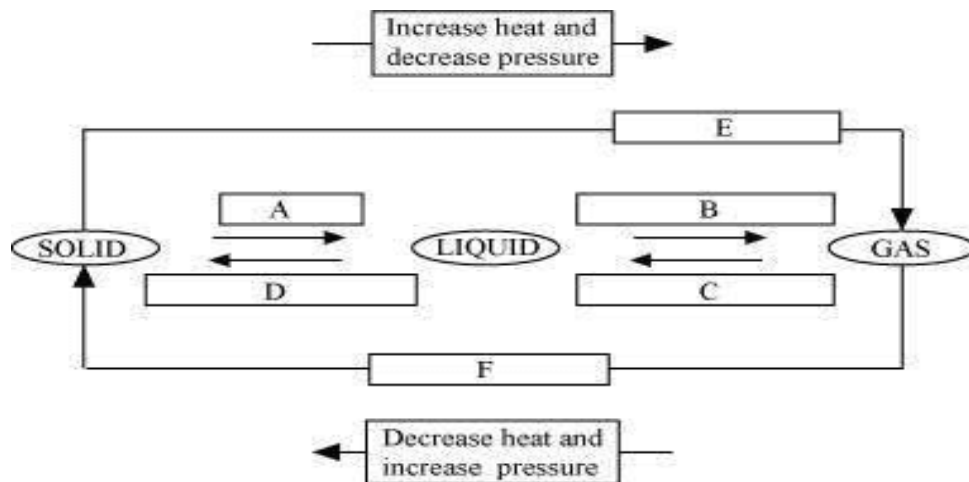
(a) 29°C in Kelvin

(b) 330K into Celsius.

(3) (a) Give the full form of LPG

(b) Define dry ice.

(4) Find out A, B, C, D, E and F and define the following terms.



(5) 5ml of water was taken in a test tube and china dish separately. These samples were then kept under different conditions as below:

Both samples are kept under fan

Both the samples are kept in a cupboard

(a) In which case evaporation is faster and why?

(b) How will the rate of evaporation change if the above activity is carried out in a rainy day? Justify.

PHYSICS

(1) Differentiate between scalar and vector quantity.

(2) Give the graphs of the following:-

- (a) constant velocity (d) object thrown upward
(b) constant acceleration (e) object showing one bounce
(c) constant retardation (f) irregular motion

(3) A car accelerated uniformly from 18km/h to 36km/h in 5 s. Calculate the
(i) acceleration

(ii) the distance covered by the car in that time.

(4) Prepare a scrap copy and do the following work neatly: -

1. Define the following terms with formulas: -

- (a) Displacement (b) velocity (c) acceleration (d) retardation (e) average velocity

2. Derive the following equations graphically:

1. $v = u + at$

2. $s = ut + \frac{1}{2} at^2$

3. $2as = v^2 - u^2$

BIOLOGY

(1) What are the steps taken by the Govt. Of India to make India Self Reliant against Covid-19. (Testing kits, Protection kits, Masks, Vaccination, Ventilators, etc). Prepare a report on it on A4 sized sheet.

(2) Draw a neat and well labelled diagram of Animal Cell and Plant Cell on A4 size sheet.

(3) Do the following work in the scrap copy (similar one used for physics):-

a) Draw, label and enlist the functions of: - Mitochondria, Golgi Apparatus.

b) Write the three causes, three effects and three remedies of plastic pollution.

SOCIAL SCIENCE

Make a Project on Democracy V/s Dictatorship. (From Roll No 1 to 20)

OR

Make a Project on project on Disaster Management (Roll No 21 onwards)

1. Read the chapter of History "The French Revolution" and write notes for the same.

2. Read Geography Ch-2 and write the major physiographic divisions of India.
3. Map Work: -
 - i) On India's political map, mark all the states and Union Territories of India.
 - ii) On India's Physical map, mark the following. (From Geography Ch-2 The Physical Divisions of India
 - Mountain and hill ranges- The Karakoram, the Zaskar, the Patkai Bum, the Janita, the Vindhya range, the Aravalli and the Cardamon hills.
 - Peaks- K2, Kanchenjunga, Nanga Parbat and the Anai Mudi
 - Plateaus- Chotanagpur and Malwa plateau
 - The Indian desert, Western Ghats, Lakshadweep islands
4. Revise all the topics covered in the class e.g., Geography ch-1 and economics ch-1 The Story of Village Palampur and civics Ch-1 What is Democracy? Why Democracy?

COMPUTER

Q1) Answer the following questions.

1. Name the type of printer to be used for printing text and graphics with highspeed but at low cost.
2. Explain Types of Networks with Example.
3. Write the uses of Internet in your own words
4. What are the difference between Printer and Plotter in your own words.
5. What are advantages of networking. Explain How the networking is useful in sharing the files , data and resources.
6. Write few Important components of Multimedia.
7. What is data?
8. Give the basic difference between a CRT monitor and a LCD monitor?
9. What is the purpose of clipboard?
10. Differentiate between LAN and WAN

Q2) Tarini Fancy Inc. is planning in the Office Building to connect allcomputers eachspread over within distance of 50 Meters.

- a) Suggest the economical cable type having high speed data transferwhich can be usedto connect these computers.

Q3) Multiple choice questions

1. Suppose you have bought all hardware components required for assemblinga computer. After assembling the Computer System, which will be the very first software to be installed:
 - a) Hardware Drivers
 - b) Operating System
 - c) Anti-Virus Software
 - d) Word ProcessingSoftware

2. Functions of an operating system include?
 - a) File system management
 - b) Memory Management
 - c) Processor Management
 - d) All of the above.

3. Members of 'Nibbles & Bytes', the computer club of a school wants to prepare and print Participation Certificate for all the participants in their annual interschool symposium using a spreadsheet, where the details of the participating students along with the events and schools are entered. Which of the following office techniques is most appropriate to get the desired results:
 - a) Cut and Paste
 - b) Find and Replace
 - c) Copy and Paste
 - d) Mail Merge

4. Which option would you use to display the digit 2 in the formula H20?
 - a) Lowered
 - b) Superscript
 - c) Subscript
 - d) Laid down

5. Spell Check will find errors in which of the following?
 - a) It in a beautiful, sunny day.
 - b) It is a beautiful sunny day
 - c) It is a beautiful, sunny day.
 - d) Is a beautiful sunny

6. GUI is used as an interface between: -
 - a) Hardware and software
 - b) Man and Machine
 - c) Software and user
 - d) None of the above.

7. The terms "operating system" refers to: -
 - a) A set of programs which controls computer working.
 - b) The way a computer operates
 - c) Conversion of high-level language into machine code.
 - d) The way a floppy disk drive operates.

8. Which of the following services is not provided by an Internet Service Provider(ISP):
 - a) An internet connection
 - b) Web Browser
 - c) Modem
 - d) Technical help

Q4) Fill in the Blanks

- a) are used for manipulating text-based documents such as letters or drafts.
- b) _____ is a set of wires that carries signals to and from the CPU.
- c) 'Start' button is located at the _____

Q5) Write True or False

- a) CPU controls all the operations of computer hardware. []
- b) MICR stands for Magnetic Inkjet character Reader. []
- c) Screen of monitor is divided into dots called Pixels. []
- d) Ctrl key is used as the special purpose key. []

Q6) Short answer type questions

- a) What is data?
- b) Give the basic difference between a CRT monitor and a LCD monitor?
- c) What is the purpose of clipboard?
- d) Differentiate between LAN and WAN
