PRAYAG PUBLIC SCHOOL
Summer Vacation holiday homework (2024-25)
Class 10th
Maths

1) Find a quadratic polynomial whose sum and product of zeroes are $\sqrt{2}$ and 3 respectively.

2) Find the zeroes of the polynomial $mx^2 + (m + n)x + n$.

3) If m and n are zeroes of the polynomial $3x^2 + 11x - 4$, find the value of $(m/n)+(n/m)$

4) Find the sum and product of zeroes of $p(x) = 2(x^2 - 3) + x$.

5) Find a quadratic polynomial, the sum of whose zeroes is 4 and one zero is 5.

6) If α and β are the zeroes of $2x^2 + 5(x - 2)$, then find the product of α and β.

7) Find a quadratic polynomial, the sum and product of whose zeroes are 5 and 3 respectively.

8) Solve the following system of linear equations graphically: $2x - 3y - 17 = 0$; $4x + y - 13 = 0$. Shade the region bounded by the above lines and x-axis.

9) Solve the following system of linear equations graphically: $2x + 3y = 4$; $3x - y = -5$. Shade the region bounded by the above lines and y-axis

10) The difference between two numbers is 14 and the difference between their squares is 448, then find the numbers.

11) Sum of two numbers is 50 and their difference is 10, then find the numbers.

12) The sum of the digits of a two digit number is 9. If 27 is added to it, the digits of the numbers get reversed. Find the number.

13) The sum of a two-digit number and the number formed by interchanging its digit is 110. If 10 is subtracted from the original number, the new number is 4 more than 5 times the sum of the digits of the original number. Find the original number.

14) If twice the son's age in years is added to the mother's age, the sum is 70 years. But if twice the mother's age is added to the son's age, the sum is 95 years. Find the age of the mother and her son.

15) Find the value of k for which the quadratic equation $(k - 12)x^2 + 2(k - 12)x + 2 = 0$ has two real equal roots..

16) Find the value of k for which the quadratic equation $k^2x^2 - 2(k - 1)x + 4 = 0$ has two real equal roots..

17) If the roots of the equation $(a - b)x^2 + (b - c)x + (c - a) = 0$ are equal, prove that $b + c = 2a$.

18) The sum of the squares of the two positive integers is 208. If the square of the larger number is 18 times the smaller number, find the numbers.

19) Two numbers differ by 3 and their product is 504. Find the numbers.

20) Seven years ago Varun's age was five times the square of Swati's age. Three years hence Swati's age will be two fifth of Varun's age. Find their present ages.

21) The product of Rohit's age five years ago with his age 9 years later is 15 in years. Find his present age.

22) The product of Archana's age five years ago with her age 8 years later is 30 in years. Find her present age.

23) The speed of a boat in still water is 8 km/hr. It can go 15 km upstream and 22 km downstream in 5 hours. Find the speed of the stream.

24) In a flight for 6000 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 400 km/hr and consequently time of flight increased by 30 minutes. Find the original duration of flight.

IT Holiday Homework

Q.1 Which two documents are essential for mail merge?

Q.2 What is mail merge? Write down the steps to create mailing labels to paste on wedding cards.

Q.3 Write an application to your Principal for field visit to any IT Industry.

Q.4 Perform the operations stated below.

(a) Write steps to count total words in a document?

(b) Is it possible to select the vertical block? If yes, then write the steps.

(c) What are the steps to select a non-consecutive text in writer?

(d) What is Special character in writer and how will you insert in a document?

Q.5 If the value of A-5, B-6,C-7,D-8 then find the result of you entered in open office calc window.

=A1*B1-D2
=D1-C2/A2
=B3^C3-A3
=A1*C1/C3
=D2*C4*E1
=A3/B3+A2*D1
=A1+(B2*C2)-B3+C2/B2

Q.6 Give any two uses of ICT at home. What are the emerging skills in ICT?

Q.7 Write the purpose of the I/O devices.

Input/output device.	Purpose
Mic/microphone -	
Scanner -	
Camera-	
Barcode Reader-	
Printer-	
Speaker-	

English

Art Integrated Project:-

What is the scope of tourism industry in Arunachal Pradesh and Meghalaya? Write all the details in one project file with well illustrated images.

English Language:-

Q. 1. Read and answer first of five 'Discursive Passage' (Pg. No. 13 to 24) and first five case based factual passages (pg. no. -39 to 48) from Vol.-1 of reference book.

Q. 2. Do first 10 gap filling paragraphs (Pg. No. 103 to 105).

Q. 3. Letter Writing (Do all the questions in language copy along with questions) :-

(i) The authorities have been claiming that the roads in your town have been relaid and repaired. But no such work done is seen. Write a letter to the editor of a local newspaper expressing your concern at the present situation and giving suggestions to resolve the problem, in 100-120 words. You are Prabhu/Parvati of Vivek Vihar, Delhi.

(ii) You feel that the Right to Education is going to help India rise above the narrow boundaries of prejudices of caste, colour, creed and corruption. Write a letter to the editor of The Times of India, reflecting your views on the subject. Sign yourself as Nandita/Naveen of Paschim Vihar, Delhi (word limit 100-120).

(iii) Auto rickshaws and vans overcrowded with precariously seated children, is not an uncommon sight in cities today. Write a letter to the editor of a newspaper highlighting this dangerous practice and urging authorities to take steps to curb this. Write the letter in 100-120 words as Sushant/Sunanda of Rani Bagh, Delhi.

(iv) Technology today is an effective and convenient means of learning.

TECHNOLOGY IN EDUCATION

PROS	CONS
- Improves engagement and retention.	- Distracting
- Promotes interactive collaborative learning	- Reduces problem solving skills
- Prepares students for the future	- Reduces direct peer interaction
- Reduces costs	- Expensive to maintain
- Promotes technological skills	- Information may not be authentic
- Provides current information	- Communication

You are Meera/Vaibhav and would like to share your views on the pros and cons of technology in education.

Write a letter to the Editor of a newspaper expressing your views in about 100-120 words.

Hindi

1 'सूरदास के पद' का भावार्थ लिखिए और याद कीजिए।

2 'सूरदास के पद' पाठ से संबंधित सभी प्रश्नों को याद कीजिए और लिखिए।

3 'राम-लक्ष्मण-परशुराम संवाद' पाठ का भावार्थ लिखिए और याद कीजिए।

4 'राम-लक्ष्मण-परशुराम संवाद' पाठ से संबंधित सभी प्रश्नों को लिखिए और याद कीजिए।

5 'नेताजी का चश्मा' पाठ से संबंधित सभी प्रश्नों को याद कीजिए लिखिए।

6 'बालगोबिन भगत' पाठ से संबंधित सभी प्रश्नों को याद कीजिए और लिखिए।

7 'ग्लोबल वार्मिंग'- एक वैश्विक समस्या विषय पर लगभग 150 शब्दों में एक अनुच्छेद लिखिए।

8 आपके क्षेत्र में लगने वाले किसी एक मेले का वर्णन लगभग 300 शब्दों में कीजिए।

9 आपको अपनी कोई पुरानी कार बेचनी है, उसके लिए एक आकर्षक विज्ञापन तैयार कीजिए।

10 अलंकार एवं उसके भेद को चार्ट पेपर पर बनाइए।

Social Science
Q1. Explain the ideas Suggested by Johann Gottfried in promoting true spirit of nation.
Q2. What are movement groups? Mmention two types of movement groups
Q3. Explain the term " Interest Groups" with two examples.
Q4."The Hobsburg Empire that rules over Austria-Hungary was a patchwork of many different regions and peaples" support the statement with suitable examples.
Q5. How would you evaluate Napoleon as an administrator who created amore rational and efficient system? Elucidate with suitable examples.
Q6. Analyze the decisions taken by the conservatives at the Congress of Vienna in the year 1815.
Q7. Differentiate b/w democratie and non-democratic government.
Q8. Highlight the role of Otto vam Bismarck in Making of Germany.
Q9. Highlight the various measures and practices that french revolutionaries introduced to create 9 sence of collective identity amongst the french people.
Q10. Why did the weavers in Silesia revolt against Contractors in 1845? Identify the appropriate reason.
Identify the major aspect that her feed formation of im the a nation-state im Britain.
11. Define majoritarianism
12. Define Ethnicity.
13. Explain the measures and practices introduced by the franch revolutionaries to create a sense of collective identity amongst the french people.
14. "Power sharing is the essence of a democratic governmend." explaine the statement.
15. make the biography Projects: choose a bay figure in European nationalism, like. Ott van Bismarck and Giuseppe Garibaldi and Create a biography highlighting their contribut ions to the nationalist movements.