ST. MICHAEL'S SCHOOL

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(An English Medium Co-Educational School - Affiliated to C.B.S.E, Bharat)

SUMMER VACATIONS ASSIGNMENT

Summer Vacations Assignment (2019 - 2020)   CLASS - X

Dear Parents,

Holidays are time when you can connect with your child in many ways. As you are your child's first and most important teacher, you can encourage your child's love for learning by participating in educational activities at home. Working together on the activities will help your child build confidence, learn to reason and develop skills necessary for his/her education. Holidays are the best time to nurture a child's talent and to learn something fruitful.

1. Take your child for a morning walk, talk about things you see around.
2. Play indoor games with your child like ludo, carom, scrabble etc. Feed grains to the birds.
3. Let your child help around the house doing small jobs like dusting, cleaning the table, filling water bottles, watering the plants, etc.
4. Spend as much time as possible with your child during holidays.
5. Please make sure that your child completes his/her holiday assignment.
6. Make your child do yoga everyday at home during summer vacations.
7. Kindly make your child write H.A. and date at the top of all the pages of copies and books given for holiday assignment.
8. Motivate your child to get up early and go to bed early and to say morning and bed time prayers.
9. Kindly encourage your child to speak in English.
10. Please ensure that your child doesn't do extra work / rough work in C.W. copies.
11. Encourage your child to speak magic words like Thank you, Please, Excuse me, Sorry etc.
12. The children are supposed to submit Holiday Homework on 12th June 2019.

Assignments for all the subjects have been given to your ward. You should encourage your child to do the assignments on a daily basis and avoid procrastinating things so that the assignments don't get piled up for the last minute. **For Holiday Assignment, child will get grades in the report card.**

Finally it is requested to kindly monitor and review the progress of your child regarding their summer assignments on a daily basis & keep him/her motivated so that the assigned task is completed well in time in a regular and smooth manner.

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1. Summer vacation will begin from **17th May, 2019 (Friday).**
2. School will re-open after summer vacation on **12th June, 2019 (Wednesday).**
3. School office will remain open till **24th May, 2019 (Friday).**
   [Time :   Monday to Saturday: 09:00 a.m. to 12:30 p.m.]
4. School office will remain closed from **25th May, 2019 (Saturday) to 5th June, 2019 (Wednesday)**
5. School office will resume its work after summer vacation from **6th June, 2019 (Thursday)** and timing will be from **09:00 a.m. to 12:30 p.m.**

☺ **Happy Holidays …… Have a cool summer ahead and take good care of yourself and your family.** ☺

English

1. Why was Lencho very happy when it started to rain that afternoon? How did his joy change to sorrow?
2. How has the poet Robert Frost used 'fire' in a symbolic way to indicate that it can cause the end of the world one day?
3. How Mandela's satisfaction with the 'Freedom' he enjoyed in childhood and youth changed as he grew older and realized that everywhere his people are in 'chains'?
4. How can you prove that Mrs. Pumphrey spoilt her pet to such an extreme that finally he fell ill and had to be hospitalized?
5. How can we understand that Anil understood that 'Hari' was a thief and he still decided to keep him as his servant.
6. How would the postmaster have felt on reading Lencho's second letter to God?
7. Write a diary entry for the postmaster describing his thoughts concerned with Lencho at the time he read his letter to God asking for help to the time Lencho got angry with the postal workers and called them 'crooks'. (Word limit 120-150 words)

Mathematics

1. If α, β be the zeros of quadratic polynomial $x^2 - 6x + 2$, than find the value of
   a) $\alpha^{-1} + \beta^{-1}$ b) $\alpha - \beta$ c) $\alpha^3\beta^4 + \alpha^4\beta^3$ d) $\alpha^3 + \beta^3$

2. If α and β are the zeros of the quadratic polynomial $x^2 - 2x + 2$, find a quadratic polynomial whose zeros are $2\alpha + 3\beta$ and $3\alpha + 2\beta$

3. If 1 and –2 are two zeros of the polynomial $(x^3 - 4x^2 - 7x + 10)$, find its third zero?

4. If α, β are zeros of the polynomial $x^2 - 6x + a$ find the value of 'a', if $3\alpha + 2\beta = 20$

5. If the zeros of the polynomial $x^2 + px + q$ are double in value to the zeros of $2x^2 - 5x - 3$, find the value of p and q?

6. If α, β are the zeros of the polynomial p $(x) = x^2 - P(x \neq 1) - c$ such that $(\alpha+1)(\beta+1) = 0$, find c?

7. If the polynomial $6x^4 + 8x^3 - 5x^2 + ax - b$ is exactly divisible by the polynomial $2x^2 - 5$, than find the values of a and b.

8. If the zeros of $ax^2 - bx + c$ be in the ratio 4 : 5, show that $20b^2 = 18ac$.

9. If the squared difference of the zeros of the quadratic polynomial $f(\pi) = x^2 + px + 45$ is equal to 144, find the value of p.

10. Use Euclid's division algorithm to find the HCF of: a) 196 and 38220

11. Use Euclids division lemma to show that the clue of any positive integer is of the form 9 m, 9m + 1ax 9 n +B

12. Express 7429 as a product of its prime factors.

13. Check whether 6^n can end with the digit 0 for any natural number.

14. Prove that $\sqrt{3}$ is irrational.

15. Prove that $\sqrt{5} - \sqrt{7}$ irrational.

16. Prove that $3 + 2\sqrt{5}$ is irrational.

17. Use Euclid's algorithm to find HCF of 1651 and 2082. Express the HCF in the form 1651 m + 2032n.

18. If n is an odd integer than show that $n^3 - 1$ is divisible by 8.

19. For any positive integer n, prove that $n^2 - n$ is divisible by 6.

20. Prove that if x and y both are positive and $x^2 - y^2$ is even but not divisible by 4.

21. Show that one and only one out of $n(n + 1)$ and $(n + 2)$ is divisible by 3, where n is any positive integer.

22. Show that one and only one out of $n, n + 2, n + 4$ is divisible by 3, where n is any positive integers.

23. Find the largest number that will divide 398,436 and 542 leaving remainder 7, 11 and 15 respectively.

24. Three sets of English, Maths and Science books containing 336, 240, and 96 books respectively have to be stacked in such a way that all the book are stored subject wise and the height of each stack is the same. How many stacks will be there?

25. The decimal expansion of the rational no. $\dfrac{4^3}{2^4 \cdot 5^3}$ will terminate after how many places of decimals?

Science (Physics)

1. Calculate the work done in moving a charge of 4C from a point at 220V to another point at 230V.

2. **a)** The 2V cells are connected in series and used as a battery in a circuit. What is the p.d. at the terminals of the battery?
   b) How many joules of electrical energy does 1C gain on passing through **i)** one cell   **ii)** all the three cells.

3. An electric heater is connected to the 230V mains supply. A current of 8 A flows through the heater.
   a) How much charge flows around the circuit each second?
   b) How much energy is transferred to the heater each second?

4. An electric iron draws current of 3.4 A from the 220V supply line. What current will this electric iron draw when connected to 110V supply line?

5. The graph between V and I for a conductor is a straight line passing through the origin.
   a) Which law is illustrated by such a graph?
   b) What should remain constant in the statement of this law?
   c) State the law.

6. A current of 200 mA flows through a 4 kΩ resistor. What is the p.d. across the resistor?

7. A 6Ω resistance wire is doubled up by folding. Calculate the new resistance of the wire.

8. Two resistors, with resistance 5Ω and 10Ω are to be connected to a battery of emf 6V so as to obtain:
   a) Minimum current flowing   b) Maximum current flowing
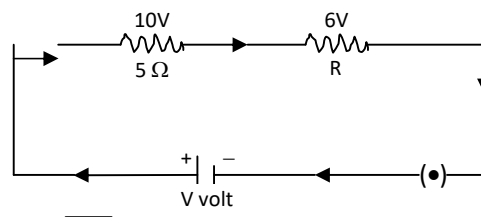   How will you connect the resistance in each case?
   Calculate the strength of the total current in the circuit in the two cases.

9. With the help of circuit diagrams deduce the equivalent resistance of the two resistances connected in series and in parallel.
   Two resistances are connected in series as shown in the diagram.
   a) What is the current through the 5Ω resistance?
   b) What is the current through R?
   c) What is the value of R?
   d) What is the value of V?

Science (Chemistry)

1. Respiration is considered as an exothermic reaction. Explain.
2. Define rancidity. Mention four methods to prevent rancidity.
3. What is decomposition reaction? Give one example of each:
   a) thermal decomposition   b) electrolytic decomposition   c) photolytic decomposition
4. Write a balanced chemical equation for action of heat on:
   a) lead nitrate   b) ferrous sulphate
5. Lead (II) nitrate and potassium iodide solutions are mixed. Write a balanced chemical equation. Identify the type of reaction. Name the compound that precipated and it's colour.
6. Define:
   a) oxidation   b) reduction (in terms of O_2 and electrons)
7. What is displacement reaction? Explain with example.
8. Why magnesium ribbon should be cleaned before burning?

9. Compound 'X' is used for white washing. Identify 'X' and write the equation when it reacts with water.

Science (Biology)

1. Mention how organisms like Bread Mould and Mushroom obtain their food.
2. Mention the significance of peristaltic movement that occurs all along the gut during digestion.
3. Pancreas acts as both endocrine and exocrine gland. Justify by giving reasons.
4. What are the different ways in which glucose is oxidized to provide energy in various organisms?
5. Name two accessory glands associated with digestive system in humans. State their functions.
6. Leaves of a healthy plant were coated with vaseline. Will this plant remain healthy for long? Give reasons for your answer.
7. What type of arrangement exists in the bodies of large animals to meet their oxygen requirement adequately?
8. List three events that occur during the process of photosynthesis. Explain the role of stomata briefly in this process.
9. Explain how does Paramoecium obtain its nutrition.
10. Draw diagram of human alimentary canal and label the following:
    a) Part in which starch digestion starts.
    b) Part in which bile is stored.
    c) Part in which nutrients are absorbed.
    d) Part in which water is absorbed.

Social Studies (History)

1. Who was Frederic sorrieu? Why was he famous?
2. What was the major change that occurred in France (Europe) due to the French revolution?
3. Describe any three steps taken by French revolutionaries to create the sense of collective belonging.
4. List any three features of civil code of 1804, usually known as the Napoleonic code.
5. Why was the Napoleonic rule over other regions unpopular with some sections of Europe?
6. Why do you think that it was not easy for the commercial class to do business activities in 19th century Europe?
7. Explain any three provisions of the Treaty of Vienna of 1815.
8. Describe the impact of Napoleonic reforms on the rest of Europe.
9. What does the term "Liberalism" mean? What did it mean to different classes and people?
10. What was the status of France as a state before 1789? Which two political and constitutional changes took place in the making of France?

Social Studies (Political Science)

1. What does the system of 'checks and balances' ensure in power sharing?
2. Mention any two characteristics of power sharing.
3. Which type of power does the community government of Belgium enjoy?
4. Why is power sharing important in a democracy? Give three reasons.
5. How far do you agree with the statement that power sharing is keeping with the 'spirit' of democracy.
6. How can power be shared among different governments at different levels? Explain
7. Differentiate between horizontal and vertical division of powers.
8. 'Both Belgium and Sri Lanka are democracies but they followed different system of power sharing". Justify the statement.
9. "Sharing of power makes a country more powerful and united." Do you agree with the statement? Give reasons.
10. Explain how Belgium was able to solve its ethnic problems?

Social Studies (Geography)

1. Define resources.
2. Define National resources.

3. Differentiate between renewable and non-renewable resources.
4. "Indiscriminate use of resources had led to numerous problems." Justify this statement.
5. What is Agenda 21? List any two principles of it.
6. What are the three stages of resources planning in India?
7. "Land is a natural resource of utmost importance." Justify this statement by giving any three logic.
8. Define the following terms:
   a) current fallow land   b) other than current fallow   c) cultivable waste land
9. Describe any five distinct characteristic of arid soils.
10. Enumerate any five features of regur soil.

Social Studies (Economics)

1. Differentiate between growth and development.
2. What are the different ways to measure development?
3. Why do we use averages?
4. Why the use of averages alone have been discarded to measure development?
5. Why and how is BMI calculated?
6. Kerela is leading ahead in terms of all developmental indicators. Explain the reasons for the same.
7. What are the different sectors in Indian economy. Explain.
8. Write a short note on HDI.
9. What are the various reasons of rising importance of tertiary sector?
10. How can we compare different sectors? How is it calculated?

Computer

1. Make a list of different types of impairment that impact computer usage. Write about different accessibility options to overcome such barriers.
2. Explain the following terms:

   a. LAN
   b. WiMAX
   c. P2P Architecture
   d. Blog
   e. Instant Messaging

3. Suggest any 5 secure measures to ensure safety from online threats.
4. Explain the necessity and function of MODEM.
5. Write the steps of Data transfer on internet or write about the working of TCP/IP.
6. List any 3 ISP's in your city. Compare them on the basis of type, speed and charges and state which is the best ISP and why?
7. Name some general rules and etiquettes to be followed while chatting.
8. Write the steps to clear stored data from Browser or to clear Browser history.
9. Write the name of different groups and group items of Ms Word 'Ribbon'.
10. Create a one page article on "Impact of Information Technology on Youth". Insert related picture in the document and the title of the article in the header. Insert your name, class, section in the footer. Print and submit the article.

Hindi

1. अपने गर्मी की छुट्टियों का सदुपयोग किस प्रकर किया ? इसका विशद वर्णन करें।
2. मित्रताः अनमोल धन पर निबंध लिखें।
   संकेत बिंदुः

1. सच्ची मित्रता – अनमोल धन   2. सच्ची मित्र के गुण एवं महत्व
3. सच्ची मित्रता की पहचान   4. सच्ची मित्रता जीवन का वरदान।

अथवा

'मधुर वचन है औषधि' पर निबंध लिखें।

1. मधुर वचन का प्रभाव   2. कठोर तथा मधुर वाणी की तुलना
3. महापुरुषों के उदाहरण   4. लोकप्रियता का आधार   5. निष्कर्ष

3. छात्रावास में रहनेवाले छोटे भाई को खेलों का महत्व बताते हुए पत्र लिखिए।

4. 'माता का अंचल' पाठ में बच्चों की जो दुनिया रची गई है वह आपके बचपन की दुनिया से किस प्रकार भिन्न है ?

5. हम अपने इलाके के शिल्पकार, संगीतकार, चित्रकार एवं दूसरे कलाकारों के काम को कैसे महत्व एवं प्रोत्साहन दे सकते है ?

6. संकलित पदों को ध्यान में रखते हुए सूर के भ्रमरगीत की मुख्य विषेषताएँ बताइए।

7. सूरदास के दो पदों (पुस्तक के अतिरिक्त) को लिखें।

8. 'कुछ मार्मिक प्रसंगों के आधार पर यह दिखाई देता है कि बालगोबिन भक्त प्रचलित सामाजिक मान्यताओं को नहीं मानते थे।' पाठ के आधार पर उन प्रसंगो का उल्लेख कीजिए।

Sanskrit

1. **अपठित गद्यांष पठित्वा प्रष्नानाम् उत्तराणि लिखत।**

प्रकृतिः मनुष्यस्य उपकारिणी। मनुष्यैः सह तस्याः शाष्वतः समबन्धः। सा विविधरुपेण अस्मिन् जगति आत्मानं प्रकटयति। पशवः पक्षिणः वनस्पतयशच तस्याः एवं अङ्गानि। निराशाः असहायाः च जनाः तस्याः एवं आश्रयं प्राप्नुवन्ति। सा स्व मनोहरेण सौन्दर्येण नीरसम् हृदयं अपि सरसं करोति। सूर्यः चन्द्रष् च तस्याः नेत्रे स्तः। शस्य–श्यामला एषा भूमिः विविधाः ओषधयः सकलानि रवनिजानि च प्रकृतेः एव शोभा। सा तु नित्यम् एव एतैः साधनैः सर्वेषाम् उपकारं करोति। परम् अधन्यः अयं जनः कृतज्ञतां विहाय असाधुसेवितं पथं गच्छति विधिधानि कष्टानि च अनुभवति। नरः शाश्वतं सुखं वाञ्छति चेत् प्रकृतेः प्रतिकूलं कदापि न आचरेत् इति।

I. **एकपदेन उत्तरत।**
   क) का सर्वेषाम् उपकारं करोति ?
   ख) सूर्यः चन्द्रः च कस्याः नेत्रे स्तः ?

II. **पूर्णवाक्येन उत्तरत।**   क)
   प्रकृतेः का शोभा ?
   ख) नरः शाष्वतं सुखं वाञ्छति चेत् प्रकृतेः तर्हिः किम् आचरेत् ?

III. **भाषिककार्यम्।**
   क) सा 'अस्मिन् जगति' आत्मानं प्रकटयति । अत्र किं विशेष्य पदम् ?
   ख) अनुच्छेदे 'दिवाकरः' इत्यस्य पदस्य कः पर्यायः आगतोडस्ति ?

2. **मित्रं प्रति लिखिते निम्न पत्रे रिक्तस्थानानि मञ्जूषायां पूरयत।**

   द्वारका

   i) _____
   ii) _____ अजय
   ii) _____ नमोनमः

अत्र कुशलम् iv) _____ । अद्य दूरभाषमाध्यमेन ज्ञातं यत् अस्मिन् ग्रीष्मवाकश भवान् v) _____ मधुबनी नगर गमिष्यति। मित्रः तत्र विष्यप्रसिद्धम् 'मधुवनी पेटिंग' इति vi) _____ । अतः यदा अत्र आगमिष्यति तदा vii)_____ कृते रमादेव्याः पेटिंग क्रीत्वा अवशयमेव आनयतु इति मम viii)_____पितृभ्यां सादरं ix) _____ ।

x) _____

मञ्जूषा : प्रणामाञ्जलिः, सप्रेम, राहुलः, निर्मीयते, प्रियमित्र, निवेदनं, सपरिवारम्, मम, तत्रास्तु, नवदिल्लीतः

3. चित्रं दृष्ट्वा मञ्जुषायाश्च सहायतया संस्कृते पञ्चवाक्यानि लिखत्।

पेज संख्या – 109 (चित्र – 1)

मञ्जूषा : विद्यालयः, प्रधानाचार्यः, अध्यापिका, छात्रा, प्रार्थनासभा, सुन्दरं, भवनम्, प्रातः काले, शिक्षिका, प्रार्थना, एकःबाल, कुर्वन्ति, उत्थिता, ध्वनिविस्तारक यन्त्रम्

4. **निम्न वाक्यानां संस्कृतभाषायाम् अनुवाद कुरुत।**

क) वे सब सुबह उठे।

ख) देव सदैव सत्य बोलते हैं।

ग) कल सोहन का भाई मेरे घर आएगा।

घ) घर के चारों ओर फूल हैं।

ड़) मानवता की सेवा ही ईश्वर की पूजा है।

5. **अधोलिखितवाक्येषु रेखांकितपदना सन्धि सन्धिविच्छेदं कुरुत।**

क) श्याम पठनाय <u>विद्यालयम्</u> अगच्छत्।

ख) बालाः <u>वसन्तोत्सवं</u> मानयन्ति।

ग) <u>यथोचितं</u> कार्य कुरु।

घ) एषः <u>गै + अकः</u> कदा गास्यति।

ड़) <u>तत् + श्रुत्वा</u> रमा दुःखिता अभवत्।

6. **वाच्यपरिवर्तन कुरुत।**

कर्मवाच्यम्	कर्तृवाच्यम्

क) बलवाता विरुद्धमपि भोजनं पच्यते।

ख) जनैः व्यायामेन कान्ति लभ्यते।

ग) मोहनेन पाठः पाठ्यते।

घ) लतया गीतं गीयते।

7. **प्रश्ननिर्माण कुरुत।**

क) <u>प्रकृत्याः</u> सन्निधौ वास्तविकं सुखं विद्यते।

ख) उद्याने <u>पक्षिणां</u> कलखं चेतः प्रसादयति।

ग) <u>अरयः</u> व्यायामिनं न अर्दयनित।

घ) <u>गात्राणां</u> सुविभक्तता व्यायमेन संभवति।

8. **प्रकृतिप्रत्यय विभागं कुरुत।**

क) चलितः –

ख) गतः –

ग) पठितः –

घ) नष्टः –

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