

ST. XAVIER'S SR. SEC. SCHOOL, JAYNAGAR

SUMMER VACATION WORK 2019

Class –IX (Nine)

English

Write your answers in ruled sheets

- a) Words and expressions -1 (workbook) complete Unit -1 & 2
- b) Read any English newspaper every day. Pick any three editorials. Stick these three clippings on ruled sheets. Summarise each of them in 150 words. Add your own viewpoints.

Mathematics

1. Write facts (minimum five) / history related to irrational numbers or and prepare a chart based on this information on an A4 size sheet.
2. Solve five problems based on each of the following concepts.
 - i) Converting a number given in p/q form into decimal. (only non terminating repeating decimals)
 - ii) Converting a non terminating repeating decimal into p/q form
 - iii) Representing a decimal number (non terminating repeating) on the number line. (till 3 places of decimal)
 - iv) Representing irrational numbers (only square root) on the number line.
 - v) Rationalization of denominator
 - vi) Simplification of expressions using laws of exponents (either base or exponent or both should be non integers)

Science

1. Solve the following numerical.
 - (a) An object is moving up an inclined plane. Its velocity changes from 15m/s to 10m/s in two seconds. What is its acceleration? (ans. -2.5m/s^2)
 - (b) A body covered a distance of x metre along a semi-circular path. Calculate the magnitude of displacement of the body, and the ratio of distance to displacement?
 - (c) A particle moving with an initial velocity of 5m/s is subjected to a uniform acceleration of -2.5m/s^2 . Find the displacement in the next 4 sec. (ans. 0)
 - (d) A car covers 30km at a uniform speed of 30km/hr. what should be its speed for the next 90km if the average speed for the entire journey is 60km/h? (ans. 90km/hr)
 - (e) A boy runs for 10 min. at a uniform speed of 9km/h. At what speed should he run for the next 20 min. so that the average speed comes 12km/hr? (ans.13.5km/h)
2. Give reasons for the following:
 - (a) Why does ice Float over water?
 - (b) Why does a gas fill completely the vessel in which it is kept?
 - (c) Latent heat of evaporation of two liquids A and B is 100 J/kg and 150 J/kg respectively. Which one can produce more cooling effect and why?
 - (d) A liquid generally flows easily.
3. Mercury is the only metal that remains in liquid form under ordinary temperature range and pressure conditions. Mercury as an element and as a native metal, is extremely rare to find on the earth therefore it is being sourced by extracting from several minerals. Its density is 13.534g/ml. What will be the volume of one Kg. Mercury?

4. Liquefied petroleum gas is the mixture of propane and butane. It is odourless in its natural state. The smell that we notice when there is a leak is because of Ethyl mercaptan which is added to the LPG. LPG is liquefied through pressurisation and stored in bottles, cylinders and tanks. It comes from natural gas processing and oil refining. It is used as heating, cooking and auto fuel. The empty cylinder (domestic) has weight of 15.3 kg and full cylinder has weight of 29.5 kg. If the volume of the cylinder is 24.5 lit. Find the density of LPG.
5. If a person drinks a very large amount of water in a short time without consuming any salt, this can result in confusion, seizures, coma, or even death, due to abnormal functioning of nerve cells in the brain. Explain how these problems could result from drinking too much water too rapidly.
6. What do you think is the reason that a person who is stranded at sea should not drink ocean water? How could drinking salty water harm a person's cells?

Social Science

Write a note on the following:

Election Procedure

1. Prior to Elections

1.1. Election Commission

- □ Head of the election commission
- Moral code of conduct
- Distribution of tickets/ nomination of candidate

1.2. Campaigning Methods

- Your views on ways of campaigning - healthy/unhealthy
- Jingles used by parties during campaigning of 2019 election.

2. During Elections

2.1. Voting percentage

2.2. Booth Capturing – ways to stop it.

3. After Elections

3.1. Result analyses can be in the form of pie chart\ bar graph (No of seats different parties won)

3.2. Reasons

3.3. Comparative analysis --2014 and 2019 results

Hindi

- 1) हाल में हीं जीते जी ' परमवीर चक्र ' प्राप्त करनेवाले वायु सेना के वीर सैनिक अभिनंदन के जीवन से आपको क्या प्रेरणा मिलती है ? इसे अपने शब्दों में व्यक्त कीजिए ।
- 2) इस अवकाश में आपके द्वारा किया गया कोई ऐसा कार्य जिससे दूसरों को खुशी मिली हो , ऐसे किसी अनुभव को अपने शब्दों में लिखिए ।

Note: Also complete the tasks given in the diary