

VILLA THERESA HIGH SCHOOL, MUMBAI

Std. 7
24/07/2017

First Unit Test – July 2017
Subject :Mathematics

Time:40 Mins
Marks :20

Set A

Q1. Evaluate the following using formulae :

(i) $(4a - 7bc)^2$ [3]

(ii) $\left(\frac{3}{8}y + 11z\right) \left(\frac{3}{8}y - 11z\right)$ [3]

Q2. Use formula to find $\left(x - \frac{4}{9}\right) \left(x + \frac{5}{9}\right)$ [3]

Q3. Multiply $(9m^2 - 8mn + 2n^2)$ by $(5m - 3n)$ [3]

Q4. Subtract $-5ax^2 + 3y^2 - 2xy$ from the sum of $9ax^2 - 2y^2 + 9xy$
and $-11y^2 - 10xy + 7ax^2$ [4]

Q5. Divide $6x^2 + 7xy - 3y^2$ by $2x + 3y$ [4]

VILLA THERESA HIGH SCHOOL
FIRST UNIT TEST - July 17
STD VII MATHEMATICS

DATE: 24.7.2017

SET 'B'

MARKS: 20
TIME: 40 min

1. Subtract $y^2 - 3y - 4$ from the sum of $4y^2 - 2y + 3$ and $-5y^2 + 9y - 20$. (4)
2. Multiply $(2a + 3)(3a^2 - 5a + 7)$ (3)
3. Divide $x^2 + 5x - 36$ by $x - 4$ (4)
4. Expand $(2x - 3y)^2$ (3)
5. Multiply $(7x - 8y)(7x + 8y)$ (3)
6. Multiply $(x + \frac{2}{5})(x - \frac{6}{5})$ (3)

SCIENCE (SET A)

QI) a) State True or False for the following. Correct only the underlined word for the false statement. (5)

- i) Symbiotic bacteria add Nitrogen to the air.
- ii) Oxygen is collected by the downward displacement of air.
- iii) Soda water contains Sodium.
- iv) Hydrogen peroxide is used for obtaining dry oxygen.
- v) Hydroxides dissolve in water to form oxides.

b) Give two uses of: i) CO₂ ii) N₂ (4)

QII) a) Observe the equations given and answer the questions given below.

(Do not rewrite the equations unless asked for.)

- i) $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$
- ii) $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
- iii) $4\text{Fe} + 3\text{O}_2 + \text{H}_2\text{O} \rightarrow 2\text{Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$
- iv) $\text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O} + \text{Energy}$

- a) Name the processes involved in each equation (2)
- b) Complete the equation (ii) (1)
- c) Name two methods of preventing equation (iii) from occurring (2)
- d) Write which of the equations above absorb or evolve energy. (2)

QIII) Answer the following:

- i) Draw a neat labelled diagram to show the preparation of Oxygen gas using potassium chlorate. (4)

VILLA THERESA HIGH SCHOOL, MUMBAI

STD: - 7

First Unit Test 2017

Time: - 40 min

Date: - 31/07/17

Subject: - Science SE-T- B

Marks: - 20

Answers to be written on the answer sheet

Q1. Name the following. (5)

- 1) Give the chemical formula for rust.
- 2) Name the acid formed on combination of water with phosphorus pentoxide.
- 3) The process occurring in plants that is responsible for removal of CO_2 from the air.
- 4) The oxide which turns blue litmus red.
- 5) The pollutant that harms the nervous system in humans.

Q2. Distinguish between burning and respiration (2)

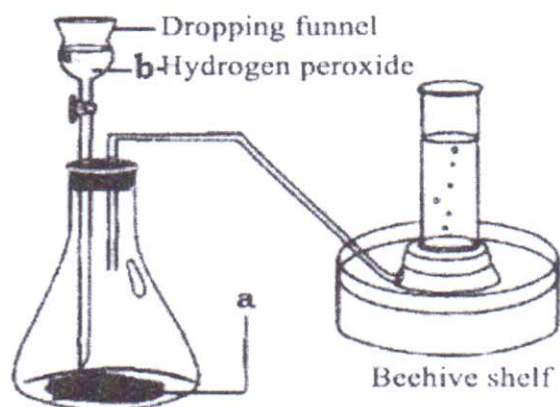
Q3. Give two examples of amphoteric oxides. (1)

Q4. Give two significance of nitrogen in air (2)

Q5. "Air is a mixture" Justify. (2)

Q6. Give two effects of SO_2 . (2)

Q7. Observe the given diagram carefully and answer the following questions. (5)



- 1) Name the chemical present in the conical flask marked as 'a'.
- 2) Which gas is released as the result of the reaction? Give one use of the gas.
- 3) Give equation for the reaction.
- 4) What is the action of the gas on moist litmus?

x-----x-----x

Name: _____ Roll no: _____

Q1. Fill in the blanks: (6)

1. A narrow piece of land the _____ joins _____ and South America.

2. Two examples of igneous rocks _____

3. The lines of longitude are also called _____.

4. The _____ of a place is determined with reference to the position of the _____ in the sky.

5. The science that deals with the study of oceans _____.

6. The boundary between the troposphere and the _____ is called _____.

7. The _____ is almost circular in shape and lies within the _____ around the North Pole.

Q2. Explain the following terms: (4)

1. International Date Line :

2. Hydrological cycle: _____

3. Lapse rate:

4. Standard Time: _____

Q3. Answer the following:

1. Mention any two characteristic features of the Lines of Longitude. (2)

2. Define Waves. (2)

3. State the Significance of Rocks (3 points). (3)

4. Draw the important lines of Latitude. (3)

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Q2. Explain the following terms: (4)

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