**NAME………………………………………………………….. ADM. NO……………………**

**ITETANI GIRLS’ HIGH SCHOOL**

**P.O. BOX 2220 – 90100**

**MACHAKOS**

**TERM ONE, 2018**

**FORM TWO**

**CHEMISTRY**

*Answer all the questions in the spaces provided*

2. Explain why cars in Mombasa rust faster than cars in Kisumu. (2 Marks)
3. What is the chemical name of rust? (1 Mark)
4. State any two uses of oxygen gas. (2 Marks)
5. When four elements P, Q, R and S were analyzed, the results below were obtained:

* P removes combined oxygen from an oxide of S.
* Q reacts explosively with water
* P forms bubbles on its surface when left for 20 minutes in water
* R does not react with both water and air

1. Arrange the four elements in the correct order from the most reactive to the least reactive. (3 Marks)
2. Would Q remove combined oxygen from an oxide of S? Give a reason for your answer. (2 Marks)

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1. When element P was burnt in oxygen, it forms a solid which is yellow when hot and turns white when cooled.

* Using element P as an example, differentiate between temporary and permanent chemical changes (2 Marks)

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* What is the identity of element P (1 Mark)

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* Write the chemical formula of the compound formed when element P combines with oxygen (2 Marks)

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1. The grid below represents a part of the periodic table. Letters do not represent real symbols of elements:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X |  | | | | | | | Z |
|  |  | Transitional  metal | V |  |  |  |  |  |
| Y |  |  |  |  | W |  |  | U |
|  |  |  | | | | | | |

1. Name the elements labeled: (5 Marks)

V-

W-

X-

Y-

Z-

1. Give two reasons as to why element Z is placed in group VIII although it has two electrons in the outermost energy level (2 Marks)

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1. Draw the electron configuration of element U and Y (4 Marks)

U

Y

1. Element J is in period 3 and group VII.
2. On the grid above, mark the position of element J (1 Mark)
3. Element J has two isotopes. One has 18 neutrons while the other has 20 neutrons. Determine the RAM of J (3 Marks)