AHMES SECONDARY SCHOOL

PRE FORM ONE END OF PROGRAMME HOLIDAY PACKAGE 2021

CHEMISTRY

1(a) Define the following terms as used in chemistry

(i)Matter (ii) A chemical engineer (iii) Biochemistry (iv) Laboratory

(b)Distinguish solid state, liquid state and gaseous state substances in tabular form (use 4 points)

2(a) Mention four significances of studying chemistry with vivid examples

(b) Mention four apparatus made of wood and state their functions

3(a) Group the following apparatuses according to their uses

Test tube, flat bottomed flask, measuring cylinder, beaker, watch glass, tripod stand, retort stand, Bunsen burner, thistle funnel, test tube holder

(b)Write down the uses of ***trough*** and ***beehive shelf*** in chemistry laboratory

4(a). Match items in List A with correct responses in List B.

LIST A		**LIST B**
Produces a lot of soot and has low temperature	A	Flame
Controls amount of air entering the burner	B	Frame
Has four zones and produces light	C	Candle
A zone in luminous flame in which all gas is burned	D	Gas stove
Its suitable for warning purpose in the laboratory	E	Chimney
A zone of burning gases giving heat and light	F	Collar
	G	Luminous flame
	H	Non-luminous flame
	I	Inner dark zone
	J	Blue zone
	K	Electric burner
	L	Kibatari

5. Write true for the correct statements and false for the incorrect statement. If the statement is false correct it as how is supposed to be

a) The first step to light Bunsen burner is to open the air hole
b) You should never use a charcoal burner in the laboratory
c) The dark inner zone of a Bunsen flame is cool and it contains unburned gas
d) The collar of a Bunsen burner enables chemist to produce luminous or non-luminous flame
e) Spirit burner's flame is suitable for the laboratory use because it does not produce soot.

6. Fill in the blanks

a) A black powder that is produced by burning things like a candle, wood or firewood …….
b) Candles flame is not good for glass ware because …….
c) You can make candles flame hotter and sootless by using a tool called ……..
d) A fuel for sprite burner is called ……
e) Robert Bunsen inverted the Bunsen burner because he wanted to produce a flame that is …….. And ……..

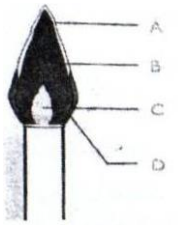
7. (a) Define the terms ***flame, heat, luminous flame and burning back***

(b)State four differences between luminous flame and non- luminous flame

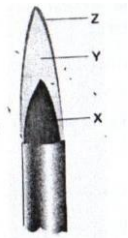
8. Mention three zones of a non-luminous flame

9. Mention any three sources of heat in the laboratory

10. Identify the parts labeled A-D



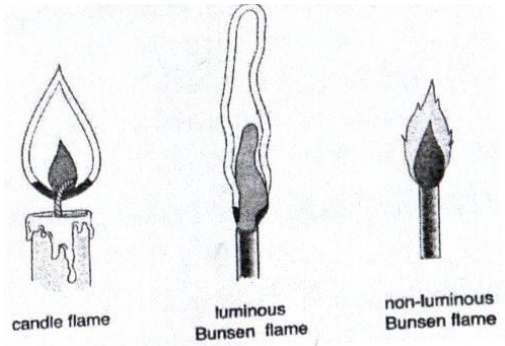
11. Look at the Bunsen burner flame.



i. Is this luminous or non-luminous flame ?
ii. How do you adjust the Bunsen burner to produce this type of flame?
iii. Which letter XY or Z shows:
    a) The region of unburnt gases
    b) Hottest part of flame
    c) The region where all the gas is brunt with air mainly supplied form outside the chimney?

12. Copy the diagrams in the figure below

a) Complete the labeling of the diagrams



b) Which tow flames seems to be similar?

c) By excluding a Bunsen burner, mention other three sources of heat that can be suitable in the laboratory

d) Why is a Bunsen burner the best heat source in the laboratory? Give three points.

13 Draw a well labelled diagram of a Bunsen burner and state the function of each part labelled