NAME…….....

END OF EDIFY ELEARNING PROJECT EXAM

SUBJECT: CHEMISTRY

CLASS: SENIOR FIVE

Instructions

1. Open the attached exam question paper.
2. Print or copy down the questions.
3. Answer the questions on plain/ ruled papers.
4. After answering, come back here on Google Classroom under the class work section where you downloaded the paper.
5. Click on the 'Add Work' button and use the scanner option to scan your work as a single PDF document with all pages included. Ensure that you adjust the crop in order to capture the full paper being scanned.
6. Turn in your work for marking as demonstrated in this video https://youtu.be/lU3Ln28lucA
7. The deadline for submission is today at 9:00PM

QUESTIONS

a) Give two reasons why scandium and zinc are not considered to be typical transition metals.

(02 marks)

b) Explain the following properties of transition elements.

i) Formation of complexes (02 marks)

ii) Variable oxidation states.

(02 marks)

a) Determine the oxidation state of chromium and manganese in the following compounds or complexes.

(01 mark@)

i) $[Cr_2O_7]^{2-}$

ii) $[MnO_4]^{2-}$

iii) $[Cr(H_2O)_6]^{3+}$

iv) $CrCl_6$

v) $MnSO_4$

a) Explain briefly why transition metals are able to form colored compounds.

(02 marks)

b) Explain why scandium ions and zinc ions are not considered typical transition metal ions.

(02 marks)

c) Fe^{3+} is more paramagnetic than Fe^{2+}. Explain (03 marks)

d) Write two ways in which zinc resembles group(II) calcium. (02 marks)

5. a)Name the following complexes or coordination compounds

i). $[Cr\ (H_2O)_6]^{3+}$

ii). $[CrCl_6]$

iii) $K_2[Fe(CN)_6]$

iv) $[Zn(NH_3)_4]^{2-}$

vi) $[Co(H_2O)_3(NH_3)_3]Cl_3$

b) Write the following complexes

i) Chloropentaaquachromium(III)ion.

ii) Pentaammineaquanickel(ll)ion

iii) Hexacyanoferrate(lll)ion

iv)Triammineaquadibromocopper

(v) Hexaquairon(ll)sulphate

END