

NAME: _____ SCH. NO: _____
INDEX No: _____ CLASS: _____

231/3
BIOLOGY
PAPER 3
PRACTICAL
1¼ HOURS

ALLIANCE HIGH SCHOOL
TRIAL EXAMINATION 2013

Instructions to Candidates

- You are required to spend the first 15 min of the 1¼ hours allowed for this paper reading the whole paper carefully commencing your work.
- Answer all questions in the spaces provided in the question paper. Additional pages must not be inserted.
- Candidates may be penalized for recording irrelevant information and for incorrect spelling especially of technical terms.

FOR EXAMINERS USE ONLY.

QUESTION	MAXIMUM SCORE	CANDIDATE SCORE
1	18	
2	12	
3	10	
TOTAL	40	

Q1 You are provided with liquid L₁ and liquid L₂.

Use Benedict's solution and Iodine solution provided to test for the food substances in liquids L₁ and L₂. Record your observations in Table 1 below.

NB Preserve about 5ml of liquid L₁ and 45ml liquid of L₂ for part (b) of the question. (10mks)

Table 1

Liquid	Food	Procedure	Observation	Conclusion
L ₁				
L ₂				

b) Put 6ml of liquid L1 into a visking tubing and tie tightly on both end.

ENSURE THERE IS NO LEAKAGE.

Immerse the tubing in a beaker containing L₂ and allow it to stand for 30 min.

Remove the visking tube from the beaker and wash the outside thoroughly to remove traces of liquid L₂. Using the same reagents as above, test for food substance in liquid L1 in the visking tubing. Record your observations in the Table II below. (4mks)

Table II

Food	Procedure	Observation	Conclusion

ii) Account for the observations on table II above

(4mks)

Q2. You are provided with specimen Q.

a) Identify the specimen

_____ (1mk)

a) Name structure M and N and state their functions. (2mks)

Name	Function
M	
N	

b) What type of germination is exhibited above? (1 mk)

c) State the phenomenon exhibited by seedling if grown in darkness (1mk)

Q3. You are provided with specimen K

a) Give the biological name of the specimen (1mk)

b) Using a scalpel, make a transverse section of specimen K into two equal parts.

i) State the placentation of the specimen (1mk)

ii) Classify the plant from which the specimen was obtained into the following Taxonomic units

Division _____ (1 mk)

Reason _____

_____ (1 mk)

Sub-Division _____ (1 mk)

c) You are given that 2 drops of 0.1 % solution of Ascorbic Acid are required to decolorize 2cm³ of 1% DCPIP. Squeeze the juice of specimen K into a 100ml beaker.

(i) Using a measuring cylinder put 2cm³ of DCPIP solution into a test-tube. Add the juice drop by drop. Record the number of drops of the juice used to decolorize DCPIP in the table below.

(2mks)

JUICE /LIQUID	No. of drops to decolorize DCPIP
0.1% ascorbic acid	
juice of specimen K	

Calculate the percentage of ascorbic acid in the juice of specimen K (2mks)

99 What disease is caused by the deficiency of Ascorbic acid in man

_____ (1mk)