G.H.S.

BIOLOGY - E.O.T. Paper 2

S.3 Nov. 2011

Time: 15 HOURS

Answer ALL questions. Instructions:

Drawings should be made in the spaces provided Use sharp pencils for your drawings.

You are provided with specimen F; observe the specimen and answer the questions that 1.

(a)(i) What part of a plant is specimen F?

(2Mks)

leaf at Reject leaves

Give three reasons for your answer in (a)(i) above. (ii)

> - lamina it - petiole | leaf stalk. Reject stalk - leaf base . It Rej one lead parts named.

(b) Using observable features state three functions specimen F performs on the plant it was obtained.

Function 1:

manufactures food / Photo synthesism

green indicating presence of chlorophy)

Function 2:

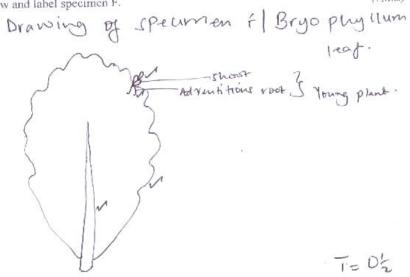
Feature:

Stores water / Food | nutrients. Rej: Acts as storage organ.

Its fresholthick | succurent. Function 3:

Vegetative propagation/Assexual Reproduction Feature: bonds / Young plants.

(c) Draw and label specimen F.



You are provided with solution A and B which each contain a food nutrient.

2.

(a) Carry out the following tests to identify the food nutrients contained in A and B.

Defluction turns yellow it absent at absent to Accept.

Turbicits colution protein present at purple t solution Observation Tests (i) To 1 cm3 of A in a test tube add 2 drops of iodine solution (ii) To 1 cm3 of A in a test tube add 1 cm3 of sodium hydroxide followed by 2 drops of copper sulphate.

		- V					
	(iii) To 1 cm ³ of B in a test tube add 1 cm ³ of Benedict's solution and boil	turns greto Mellow finally oro	ppt and	Reducing present.	sugars		
	(iv) To 1 cm ³ of DCPIP in a test tube add drop by drop of solution B until there is no further change.	Bluer so turns int colouries	In the	Vitamin present !	Ascorpic jbr. Witzmir prijest		
	(b) State the function	on(s) of food nutrien	t in		(3Mks)		
	(i) A						
	(i) A	~		(gue)		
- Construction (any one)							
	manute	- Repair - manufacture of hormone 1-en3 grand					
	- //	0					
(ii) B - Provides -en-ergy							
- Prevents scurry							
	- Prevents scurry - Promotes resistance was a to discase I wound had immunity You are provided with specimens K and L.— HIPY						
(a) State the Phylum and Class of the specimens giving three observable characteristic features for your classification in each case. (5Mks)							
	(i) Phylum: Art	: Anthopid	a, Arthropod				
	Characteristic fea	+					
	1. Segn	rented h	PDCIICI C				
	2. join	rented h	los. I				
	3. Exo	sle leton	·ut				
					3		

(ii)	Class: In St (+5	Reject Ins	ert.
	Characteristic features	9	. 5
	1. 6 legs / 3	pairs of lege	+
	2. 3 main	Loody parts / He	ad throw obdone
	3. Thorax divi	ded into 3 / P	rother, meso,
			Cocheronal 1849.
(b)	Using the features of the head	region state three differences betw	veen K and L. — #1819.
	K	L	
TV.	Tandible.	proboscis	-
Non hairy /lon	g antennae	Hairy/smort ante	nnae.
+ labiur	flabrum preso	Viabium 1/00	, ,
- NON F	State the habitat of specime	ed eyes - Dual eye. any pulp short mo	(LMk)
	Warm, Dark,	narrow cravic	es/coack on lend
(i - Kull 160=	i) How is specimen K adapted	to its habitat mentioned in c(i) al	bove. (3Mks)
-long an	tennae for	Senstivity in do	· rkners.

- Claws	for clinging		ha in and a
- Arolium	- I grandular	pads for wal	ming of supply
howsel	ventally flat	rened to fit in	Cravices.
- Drawin	g and log o	nupunal for	land.
- Malkin	g) legs 其 ter	walking on	4
			12 MRS
			40