Candidate's Name:					
School:		Centre No.		Personal No.	
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Sign:					

553/2 BIOLOGY PRACTICAL Paper 2 July/August 2022 2 hours



HOIMA DIOCESE EXAMINATIONS BOARD

UCE Mock Examination, 2022

BIOLOGY (PRACTICAL)

Paper 2

2 hours

INSTRUCTIONS TO CANDIDATES:

This paper consists of three questions.

Answer all questions.

Drawings should be made in spaces provided.

Use sharp pencils for your drawings.

Coloured pencils or crayons should not be used.

No additional sheets of writing paper are to be inserted in this booklet.

For Examiners' Use Only			
QUESTION	MARKS	EXAMINER'S SIGNATURE AND NUMBER	
talos fol ⁶ ma	tightly Measure	open it. Tie one end el'il e vislang une	
1.		Wash opter sartace of the visking rate	
2.	liideis off acidenti 	A THE POLICE OF THE PROPERTY O	
3.		down ner werld. After 20 minutes ramely	
A TAN		observations in the table 2.	
TOTAL		The state of the s	

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Turn Over

1. (a) You provided with solutions A and B. You will determine the nature of the nutrients they contain.

(11 marks)

Table 1

Test	Observation	Deduction
(i) T0 1 cm ³ of solution A in a clean test tube; add 3 drops of iodine solution		SS32 BIGLOGY PRACTICAL PRACTICAL
(ii) To 1 cm ³ of solution A in a clean test tube add 1 cm ³ of sodium hydroxide; followed by 2 drops of Copper (II) sulphate.		2 hours 2 hour
(iii) To 1 cm ³ of solution B in a clean test tube; add 3 drops of iodine solution.	1 4 9 (AX 30 AB) B	LUNE TRUCTIONS T
(iv) To 1 cm³ of solution B in a clean test tube; add 1 cm³ Benedict's solution and boil.	Askinenc zanocaz na skila zentrantaman Asausa da talantaz ano es menjeka paper personali filmer)	Use sharp renells for

open it. Tie one end of the visking tube tightly. Measure 3 cm³ of solution A and 3 cm³ of solution B and pour into the visking tube tie tightly the other end. Wash outer surface of the visking tube. Immerse the visking tube into a boiling tube containing 15 cm³ of distilled water and wait for 20 minutes. (Meanwhile do other work). After 20 minutes remove the visking tube from the boiling tube and carry out the tests below using the contents of the boiling tube and write the observations in the table 2.

Table 2

Test	Observation	Deduction
(i) To 1 cm ³ of the		and the second second second second
solution in a tube,		
add 1 cm ³ of		
sodium hydroxide;		and the State
followed by 2		
drops of Copper		
(II) sulphate		
(ii) To 1 cm ³ of the		
solution in a test		and the believe on the state of
tube; add 1 cm ³		de forme profitient
Benedict's		
solution and boil	mission of the party life.	
	A STATE OF THE STA	

(c)	Expl	ain your observations in (b) (i) and (b) (ii) above.	(03 marks)
	(i)	The the table to low state world alder and all the	14(9)
		A Provide speciments 1. W. and W. V. Salendar	
	(ii)		
		sogs vid beassassing of threstown the Misses and Division to	

1. (a) You provided with solutions A and B. You will determine the nature of the nutrients they contain. (11 marks)

Table 1

Table 1		Deduction
Test	Observation	Deduction
(i) T0 1 cm ³ of solution A in a clean test tube; add 3 drops of iodine solution		SSS2 BIOLOGY PRACTICAL Paper 2
(ii) To 1 cm ³ of solution A in a clean test tube add 1 cm ³ of sodium hydroxide; followed by 2 drops of Copper (II) sulphate.		2 homs
(iii) To 1 cm ³ of solution B in a clean test tube; add 3 drops of iodine solution.		
(iv) To 1 cm³ of solution B in a clean test tube; add 1 cm³ Benedict's solution and boil.	As an extract to the control of the	Use sharp penells for a good of the contract o

(b) Briefly dip the visking tube in water to soften it. Rub between two fingers to open it. Tie one end of the visking tube tightly. Measure 3 cm³ of solution A and 3 cm³ of solution B and pour into the visking tube tie tightly the other end. Wash outer surface of the visking tube. Immerse the visking tube into a boiling tube containing 15 cm³ of distilled water and wait for 20 minutes. (Meanwhile do other work). After 20 minutes remove the visking tube from the boiling tube and carry out the tests below using the contents of the boiling tube and write the observations in the table 2.

Table 2

Test	Observation	Deduction
(i) To 1 cm³ of the solution in a tube, add 1 cm³ of sodium hydroxide; followed by 2 drops of Copper (II) sulphate	ewe toles of the process lines	(ii) State
(ii) To 1 cm³ of the solution in a test tube; add 1 cm³ Benedict's solution and boil		

(c)	Explain your observations in (b) (i) and (b) (ii) above.	(03 marks)
	(i)	
	an more and bearing the readounce that make other and all-	
	and subspension / S/ New Will aromicson patrough	
	(ii)	
	State one reproductive shared ording has exceed by specimen	(ai)

	(d)	(i) State the biological pro	ocess investigated in this experir	ment. $(0^1/2 mark)$
			edu s m nodulo.	
		ii) State two roles of the p	rocess in (d) (i) above in animals	s. (02 marks)
			garage 2 to square	
			W and X which are plant parts.	
(a) Giving	reasons, what plant structure	are specimens T , U , V , W , and	1 X ? (01 mark)
	Plant str	ructure		(01 main)
	Reason			
		5vode (u) (d) V.E.(i) (d)	H 28 OUR VERZOO DIG V MERIO CEI	
4	······································			
(b)	(i) In fo	the table below, state one llowing specimens T, W,	e observable modification on and V. suggest the fund	each of the
	m	odification observed.		(03 marks)
	Specimen	Modification	Function of modif	ication
	T			
	W			
	V			
L				
	(ii) Sta	te one reproductive charact	eristic possessed by specimen	X.
				$(0^1/2 mark)$

Cut specimen U longitudinally into equal parts. In the table below, state three (c) observable structural features of specimens T, U, V, W and X. $(7^{1}/_{2} \text{ marks})$ **Specimen Observable features** T U V W X Using observable structural features; construct a dichotomous key to (i) identify specimen T, U, V, W and X. (04 marks)

	magnification.		(05 mar
Yo	ou are provided with specimen R.		
(a)	Giving two reasons in each case; state the kingdo specimen.	om phylum and	class of (06 mar
	(i) Kingdom		
	Reasons		

	(11)	Phylum 1 1 1 1 1 1 1 1 1 1	
		Reasons	
	(iii)	Class	
	•••••	Reasons	
	Ø		
(b)	Give	e two adaptations of the wings and limb to their functions. (0	4 marks)
	(i)	Adaptations of the wings.	
	••••		
	(ii)	Adaptations of hind limbs	
(c)	Use to t	e a razor blade to cut off one hind limb and one fore limb from the body of the specimen. Stretch the limbs and using a thread gth.	the attachment
	(i)	the space helow	(02 marks)
		Length of fore limb	
		Length of hind limb cm	
			Turn over

	(ii)	Work out the ratio of the length of fore limb: length of hind limb. (01 mark)
	.,		
			1
	(iii)	What is the importance of this ratio in the life of the specimen? (02 marks	
		260essA	
(d)	Cut o	off the remaining hind limb at the point of attachment to the body. Draw an , state your magnification. (05 mark)	s)