SILICON VALLEY HIGH SCHOOL END OF TERM ONE 2025

S.6 BIOLOGY

2Hours 10Minutes
Instructions : Attempt all questions
Question 1
You are provided with specimen K.
a) With the help of a hand lens, examine the head of the specimen. Using any
four observable features on the head, explain how each of them enables
the animal to survive in it's habitat .(04marks)

b) View the interior part of the head using a hand lens . Draw and label. (11marks)

c)	under	f the head of the specimen then cut one eye with as little tissue it as possible. Place the eye on the slide with the cut side facing wards/ View under the low power of a microscope.		
	i)	Describe the arrangement of the units?(05marks)		
	ii)	Draw four adjacent eye units .Do not label.(06marks)		
	iii)	What is the significance of the arrangement of the units? (02marks)		

d) With the dorsal side upper most ,dissect the specimen to remove the digestive system .Display the structures remaining on the ventral cuticle .Draw and label. (12marks)

Question 2 You are provided with specimen B Downloaded from

- a) Using a mortar and pestle, crush the whole specimen B, add 10cm³ of water to it and stir; then decant the liquid part into a test tube.
 - i) Carryout tests for proteins ,starch and reducing sugar on the solution, using the reagent provided .Record your tests , observations and conclusions in table I (10marks)

TABLE 1

	TABLE I	
Eest	Specimen	Conclusion
Protein test Output Output		
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Starch test		
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Protein test Protein test Starch test Starch test Reducing sugar Reducing sugar		



ii) To 5cm³ of solution B, add 2cm³ of solution Y provided. Incubate in a water bath at 35-40c⁰ for 15 minutes. Repeat the tests in the table 1 above using the incubated mixture. Record your observations and conclusions

in the table below. (06marks)

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Test		Observation	Conclusion
Proteins			
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Starch			
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Reducing	g Sugars		
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iii)	From the results i	n (c) (ii) suggest the nature of	of solution Y (02marks)
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iv)	State one propert	cy of solution Y by the results	s in (c) (ii). (02marks)

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