

SCOBA

END OF APRIL TEST 2020
S.2 BIOLOGY

TIME: 1 ½ HOURS

INSTRUCTIONS:

*This paper consists of two sections. Section A and section B
Answers for section A must be put in answer grid provided below.
Answers for section B must be put in the provided space.*

1.		11.	
2.		12.	
3.		13.	
4.		14.	
5.		15.	
6.		16.	
7.		17.	
8.		18.	
9.		18.	
10.		20.	

1. What would happen to an enzyme if the temperature of the medium was increased to above 50⁰c?
A. Killed B. Activated C. Denatured D. Inactivated
2. A rabbit is able to utilise cellulose because it;
A. Has symbiotic bacteria in the stomach
B. Has symbiotic bacteria in the caecum
C. Has a very long alimentary canal
D. Secretes the enzyme cellulase
3. Which one of the following factors is not important as far as nutrition in common mould is concerned?
A. It produces large quantities of spores
B. It can respire aneorobically
C. It has highly branched mycellium
D. it secretes enzymes.
4. A certain plant had the following characteristics;

- Leaves reduced to spines
- Stomata sunken in pits
- Leaves covered with thick cuticle

Which one of the following would be the likely habitat for the plant?

- | | |
|--------------------|-------------------------|
| A. Open grass land | C. Wet land |
| B. Arid land | D. Tropical rain forest |
5. Yellowing of leaves in growing maize plants indicates a deficiency of;
- | | |
|------------|--------------|
| A. Calcium | C. Nitrogen |
| B. Sulphur | D. Magnesium |
6. What are the products of digestion of Lactose sugar?
- | | |
|--------------------------|---------------------------|
| A. Glucose only | C. Fructose and galactose |
| B. Glucose and galactose | D. Fructose and glucose |
7. Which one of the following is a characteristic of insects only?
- | | |
|-----------------|-------------------------|
| A. Exoskeleton | C. Two pairs of wings |
| B. Jointed legs | D. Three body divisions |
8. Which one of the following is a modified root?
- | | |
|-----------------------|-----------------------|
| A. Sweet potato tuber | C. Irish potato tuber |
| B. Rhizome | D. Corm |
9. A maize grain is both a seed and a fruit because it;
- | |
|--------------------------------------|
| A. Shows hypogeal germination |
| B. Has a fused pericarp and testa |
| C. Shows two attachments or scars |
| D. Has both endosperm and cotyledon. |
10. Figure 1 below is an experiment set up to investigate the action of enzyme pepsin on egg albumen.

From which one of the following was section taken?

- A. Monocotyledonous stem
- B. Monocotyledonous root
- C. Dicotyledonous root
- D. Dicotyledonous stem

19. What do the rhizobium bacteria gain in their association with leguminous plants?

- A. Air
- B. Heat
- C. Shelter
- D. Nitrates

20. Which of the following is the best advantage of crop rotation?

- A. It helps to reduce soil erosion
- B. The growth of weeds is brought under control
- C. It prevents exhaustion of particular mineral salts from the soil
- D. It helps to improve soil conditions.

SECTION B

21. The table below shows the effect of temperature on the activity of amylase on starch. Six test tubes, each containing a mixture of starch and amylase, were placed in water baths maintained at 0°C, 20°C, 40°C and 50°C and allowed to stand. Study the table and answer the questions that follow.

Test tube	Temperature (0C)	Time taken for starch digestion (Minutes)
1	0	Starch still present after 60 minutes.
2	10	22
3	20	11
4	30	5
5	40	3.5
6	50	Starch still present after 60 minutes

a) How does temperature affect the action of amylase? (3 mks)

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b) Give one reason in each case for the results obtained in the tubes kept at

i) 0°C (1 mk)

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ii) 50°C (1 mk)

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