

Name:
School:
Candidate's Signature.....

Adm. No:
Date:

231 / 3
BIOLOGY - PRACTICAL
FORM FOUR
PAPER 3
MARCH/APRIL 2013
TIME: 1³/₄ HOURS

BARINGO NORTH JOINT EXAMINATIONS - 2013
Kenya Certificate of Secondary Education (K.C.S.E.)
BIOLOGY PAPER 3 FORM FOUR.

INSTRUCTIONS TO CANDIDATES

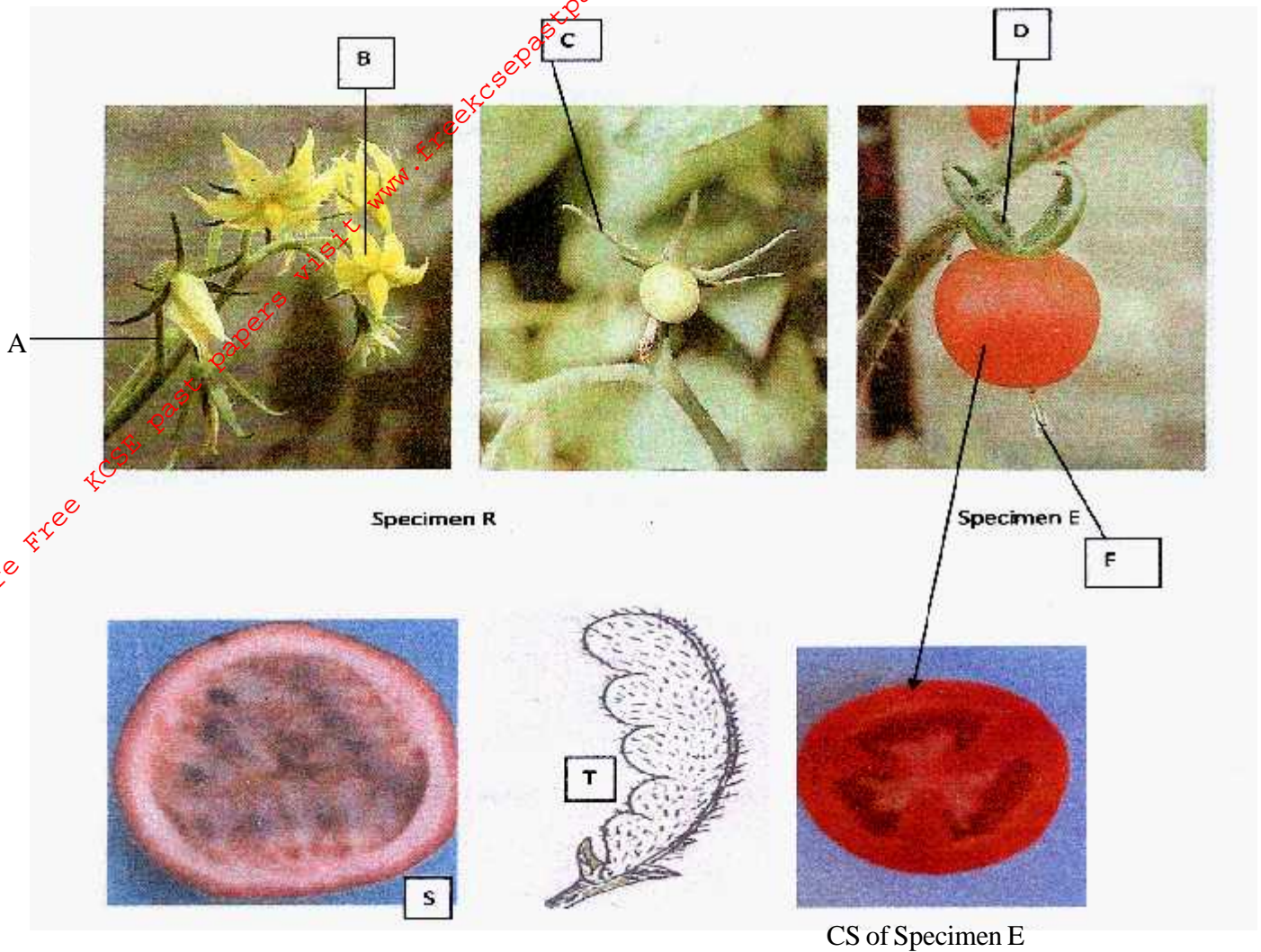
- B: Write your name, ADM number and sign in the spaces provided above.
- C: You are required to spend the first 15 minutes of the 1³/₄ hours of time allocated reading whole paper carefully before commencing your work.
- D: All answers **must** be written in the spaces provided in the question paper.
Additional pages **MUST** not be inserted.

FOR EXAMINERS USE ONLY

Questions	Maximum Score	Candidates Score
1	16	
2	14	
3	10	
Total Score	40	

*This paper consists of 4 printed pages.
Candidates should check the question paper to ascertain that
all the pages are printed as indicated and that no question is missing.*

1. Examine the photographs below and answer the questions that follow



- a) Specimen R was obtained from fruit development of a tomato fruit (5 marks)
- i) Name the parts labelled (5 marks)
- A _____
- B _____
- C _____
- D _____
- E _____
- ii) State the type of fruit represented by E. (1 mark)
- _____
- iii) Give reasons for your answer in (ii) above. (1 mark)
- _____
- b) State the type of placentation shown by the specimen S and T. (2 marks)
- S _____
- T _____
- c) i) State the agent of dispersal of specimen T and E (2 marks)
- T _____
- E _____

ii) Give reason for your answer in (c) i above. (2 marks)

d) List three observation differences between specimen E and T. (3 marks)

2. You are provided with:

i) Olive oil

ii) Solution F

iii) Solution K (concentrated sodium hydrogen solution)

a) Using the reagents provided carry out, food tests to determine the food substance(s) present in solution F. (6 marks)

Test	Procedure	Observation	Conclusion

b) Into a test tube, put 2 cm³ of distilled water and add 8 drops of live oil. Then add 8 drops of solution K. Shake it and allow standing for two minutes.

i) Record your observations (2 marks)

ii) Name the process that has taken place in the test tube. (1 mark)

iii) State the significance of the process named in b(ii) above in digestion. (1 mark)

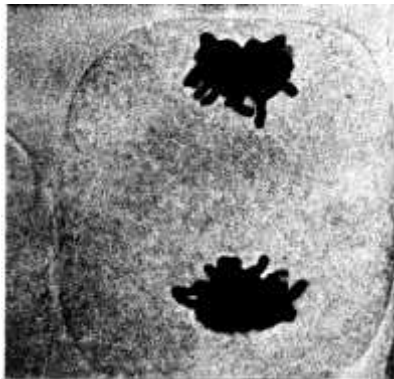
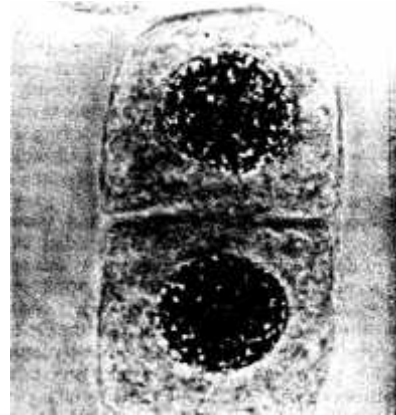
Name the:-

I) Digestive juice in humans that has the same effect on oil as liquid K. (1 mark)

II) Region of the alimentary canal into which the juice named above is secreted. (1 mark)

III) State two salts found in the digestive juice named in iv (I) above (2 marks)

3. The micrograph below shows stages in a type of cell-division that occurs in organisms.



a) State the type of cell-division (1 mark)

b) Identify the stages indicated by letter:- (4 marks)

V _____

X _____

Y _____

Z _____

c) Name the type of cells in which the above process occurs. (1 mark)

d) State two significance of this type of cell division (2 marks)

e) From the micrograph, suggest with reason(s) whether the cell-division shown occurred in plants or animals. (2 marks)