

QUESTION 1

- 1.1 well answered
- 1.2 Learners have problem with terminology – educators should give more exercises and list of concepts in each chapter that learners must know.
- 1.2.3 learners could not understand the pigment (**haemoglobin**) – and instead give the form in which oxygen is transported (**oxyhaemoglobin**)
- 1.3 Well answered except for 1.3.2 and 1.3.6
- 1.4.1 Learners could not identify the specific mechanism illustrated in the diagram reason could be that this has not been done in many schools.
- 1.4.2 – marks awarded to all candidates – mistake on Afrikaans paper
- 1.4.3 – learner has a problem in understanding the question and could not provide reasons why parts could not function as normal human respiratory system.
- Educators need to relate the model when teaching to real life situation
- 1.5 candidates have shown no understanding of the requirements and products of photosynthesis – especially the source of water – 93 % got the answer wrong

Main tissue responsible for photosynthesis in the leaf unknown – this is supposed to have been done as early as grade 10 – candidates mentioned chloroplasts of chlorophyll instead of a tissue.

QUESTION 2

- 2.1 poorly answered by most learners – could be due to the new type of questioning – **especially 2.1.5 – 2.1.10**
- 2.2 Most learners could not get to the expected answers – **identifying the structure and adaptation**
- 2.3 a clear indication that experiments (practicals) are not done – this could be due to a number of different reasons in many schools – this has led to many learners unable to identify the aim of the investigation and the colour change
- 2.3.4 Too often candidates confuse functions of proteins with those of fats

QUESTION 3

- NB **all enzymes** are proteins but **some** hormones are proteins
- 3.1.2 the question could have been very specific e.g. state THREE functions of proteins.
- 3.2 When conducting food tests, educators should try to relate it to given scenarios/ data, to enable learners to link their knowledge to the given data. Many candidates have problem extracting information from the given data

- 3.2.5 poorly answered by many candidates – calculation a problem to many candidates, learners should be encouraged to bring their **calculators** as many could not calculate even when they had all the correct numbers to work with

QUESTION 4

- 4.1 Poorly answered – learners not exposed to practical work.
- Candidates either knew all three or none
- 4.2 function of potassium/sodium hydroxide unknown – lack of exposure to practicals
- 4.2.3 answer was poorly constructed and learners had difficulty in answering the question
- 4.3 poorly understood by many candidates in all centres and some could not express their thoughts in words. The mark allocation in this question further confused most candidates as they could not express their answers as expected in the memo

QUESTION 5

- 5.1.1 Some learner gave “anaphase” and “telophase” as answers
- educators should emphasise differences between growth curves and phases.
- Still confusion with regard to “lag” and “log” (arithmetic) phases
- 5.1.2 learners could not stick to organisms asked in the question paper and more often referred to “people” instead of “baboons”
- 5.1.3 learners could not distinguish between direct and indirect method of estimating the population size
- Characteristics of each phase of the curve unknown to many learners – its either that the chapter is done early in the year and never revised again.
- 5.2 extremely poorly answered – most could not calculate correctly even though they have used correct numbers- educators should encourage learners to bring calculators **as indicated in the instruction page**
- 5.3 lack of reading skills to many of our candidates was evident in this question
- Educators should provide learners with examples in class to acquire skills
- 5.3.1 poorly answered as many candidates missed – “**contact with contaminated**” in their answer
- 5.3.3 Most learners answered the first part of the question correctly but did not supply the reasons.