

EVOLUTION

KCSE QUICK REVISION

*Compilation of Possible Questions in Biology Likely to be
Examined in KCSE.*

*A Special Analysis of Prediction Questions that may be Tested in KCSE from this
Topic in Form 4.*

BIOLOGY

SERIES 1

For Marking Schemes

Mr Isaboke **0746 222 000 / 0742 999 000**

MWALIMU CONSULTANCY

EVOLUTION

1. a) Distinguish between homologous and analogous structures in evolution.
b) Name **one** vestigial structure in mammals.
2. a) Give **two** examples of adaptive radiation in animals.
b) State **two** disadvantages of using fossils as evidence of evolution
3. Distinguish between camouflage and mimicry.
4. State the role of light in photosynthesis
5. (a) Name the region of the **gut** where digestion of cellulose takes place.
(b) State role of **cardiac sphincter** in the stomach.
6. (a) Give **two** limitations of fossil records as evidence of evolution
(b) State any **two** similarities in structure between **Homo erectus** and **Homo Sapiens**
7. (a) (i) What is meant by vestigial structures?
(ii) Give an example of a vestigial structure in human
8. Distinguish between the struggle for existence and survival for the fittest as used in the theory of natural selection
9. Give **two** factors that determine water reabsorption in the distal convoluted tubule
10. Distinguish divergent and convergent evolution
11. (a) What are the advantages of natural selection
(b) All insects are believed to have arisen from a common ancestor. However, modern Insects differ widely in a variety of ways such as in the adaptation of their mouthparts for different modes of feeding. What kind of evolution is this?
12. Explain why Lamacks theory of evolution is not accepted by Biologists today.
13. a) i) What is meant by vestigial structures
ii) Give an example of vestigial structure in human
b) Explain why certain drugs become ineffective in curing a disease after many years of use
14. (a) What is organic evolution?
(b) Briefly explain the term “***survival for the fittest***” as used in Darwin’s theory of natural selection
15. Explain why insecticides become ineffective against insects if used for several years insuccession
16. State **three** limitations of fossils records as an evidence of organic evolution

17. State **three** pieces of evidence that support the theory of organic evolution
18. What is meant by natural selection?
19. (a) Explain why Lamarck's theory of evolution is not accepted today
(b) State **two** limitations of fossils records as evidence of organic evolution
20. In a breeding experiment, plants with red flowers were crossed. They produced 123 plants with red flowers and 41 with white flowers:
(a) Identify the recessive trait
(b) Give a reason for your answer
(c) If white flowered plants were selfed, what would be the genotype of their offspring?
Show your working using appropriate symbols **(R, r)**
(d) What is a test cross?
21. a) What is organic evolution?
b) Describe the various evidences which support the theory of organic evolution.
22. (a) What is meant by the term natural selection
(b) Describe how natural selection brings about the adaptations of a species to its environment
(c) Distinguish between convergent and divergent evolution
(d) Discuss **four** evidences to show that evolution has taken place
23. Explain the various evidence for organic evolution
24. (a) What is organic evolution
(b) Explain why resistance to antibiotics is considered as an example of evolution
(c) List and explain various evidences of organic evolution
25. Pure breed red flowered plants were cross pollinated with pure breed white plants. The resulting F_1 offspring's had pink flowers.
(a) Using letter **R** to represent the gene for red colour and letter **W** to represent gene for white colour of flowers. Work out the genotype of the F_1 generation
(b) If seeds from the F_1 generation plants were planted and allowed to self pollinate. Work out the phenotypic ratio of the F_2 generation

For Marking Schemes/Answers

Contact Mr Isaboke

0746-222-000

OR

0742-999-000

FOR THE FOLLOWING;

- ✓ **ONLINE TUITION**
- ✓ **REVISION NOTES**
- ✓ **SCHEMES OF WORK**
- ✓ **SETBOOKS VIDEOS**
- ✓ **TERMLY EXAMS**
- ✓ **QUICK REVISION KITS**
- ✓ **KCSE TOPICALS**
- ✓ **KCSE PREMOCKS**
- ✓ **TOP SCHOOLS PREMOCKS**
- ✓ **JOINT PREMOCKS**
- ✓ **KCSE MOCKS**
- ✓ **TOP SCHOOLS MOCKS**
- ✓ **JOINT MOCKS**
- ✓ **KCSE POSTMOCKS**
- ✓ **TOP SCHOOLS PREDICTIONS**
- ✓ **KCSE PREDICTIONS**
- ✓ **KCSE REVEALED SETS**

CALL/TEXT/WHATSAPP
0746 222 000 / 0742 999 000

mwalimuconsultancy@gmail.com

THIS IS A COPYRIGHT PROPERTY OF
MWALIMU CONSULTANCY LTD.

POWERED

BY

MR ISABOKE

SUCCESS