

RESEARCH REVISION QUESTIONS

1. Briefly describe five methods of acquiring knowledge. 10marks
2. Define the following terms:
 - a) research 1mk
 - b) research problem 1mk
 - c) Hypothesis 1mk
 - d) variable 1mk
3. State the purpose of educational research. 3mks
4. List six sections of a research proposal. 6mks
5. Give four reasons why every teacher should conduct educational research 8marks
6. Briefly describe six types of research that secondary school teachers are likely to conduct 12marks
- Briefly explain four criteria for a good scientific hypothesis 8marks
7. Briefly explain the six stages in the research process 12Marks
8. Make a sequential list of the topics usually covered in a research proposal. 20marks
9. Define the following terms:
 - a) Variable
 - b) Research Problem
 - c) Hypothesis
10. Describe the main stages of the research process
 - a. Use the following constructs to write research problems, research questions and hypothesis:
Sex, academic achievement, socio-economic status, father's level of education, location of school, teacher's professional qualification, parents' attitudes towards school subjects, teaching methods
 - b. Five problems from the research literature are given below. Study them carefully and construct one or two hypothesis based on them.
 - a) Do teachers' comments cause improvement in student performance?
 - b) How does organizational climate affect administrative performance?
 - c) How does the socio-economic status of secondary school children affect their performance in national examinations?

- d) How do students' attitudes towards mathematics influence their academic achievement?
 - e) What are the contributions of home background, school facilities and attitudes to the academic achievement of primary school pupils?
- c. List the sections of research proposal and describe the topics covered in each section.

11. Define the following concepts

- a) Research design 1 mark
- b) Population 1 mark
- c) Cluster sampling 1 mark
- d) Convenience sampling 1 mark

12. Distinguish between probability and non-probability sample 2marks

13. Briefly describe two experimental designs 8marks

14. Describe three steps you would take in selecting a systematic sample 6marks

- 1. State two research designs 2 marks
- 2. Explain three pre-experimental designs 6 marks
- 3. Briefly describe the pre-test post-test control group design 8 marks
- 4. Outline the main steps of the survey design 4 marks

15. You are required to obtain a representative sample of 60 secondary schools in

16. Kenya. Explain the method of sampling you will use.

17. What is the rationale for using samples?

18. Distinguish between probability and non-probability sampling

19. Show how you would use systematic sampling to choose a sample of 20 Form III students.

20. Explain the difference between stratified sampling and purposive sampling.

21. Give the reasons for sampling 6 marks

22. List two basic ways of sampling 2 marks

23. Briefly describe judgments sampling 6 marks

24. Explain two situations when it is advisable to use Cluster sampling 4 marks

25. Select a research problem and develop an experimental design to test the chosen hypothesis (10 marks)

26. A researcher wishes to study mathematics performance of Form IV students in a district. There are twenty secondary schools in the district. The researcher wishes to

obtain a total group of 100 students using stratified sampling technique. Describe the steps she would take in selecting the sample.

(10 marks)

27. Briefly describe the steps that must be taken to carry out a questionnaire survey. 14 marks
28. Briefly explain four advantages the interview has over the mailed questionnaire. 6 marks
29. Distinguish between participant observation and direct observation. 2 marks
30. Briefly describe three situations that may be served by observation data. 8 marks
31. Briefly explain five disadvantages of direct observation. 10 marks
32. Choose a topic and a goal for questionnaire. Develop a four-item questionnaire with one item of each of the following types:
 - a. Open ended
 - b. Multiple choice
 - c. Likert
 - d. Ranking

(10 marks)

33. Explain why direct observation would be the most appropriate method of investigating the quality of teaching-learning in secondary schools in your country.

(10 marks)