



Science Education Department,
Faculty of Education,
National Open University of Nigeria.
2025_2 EXAMINATIONS

SED 811- FOUNDATIONS OF SCIENCE EDUCATION (3C)

INSTRUCTION- Answer Question 1 and ANY other Three (3)

TIME: 2 HOURS

1A. What is Science?

1B. State two attributes of Science.

1C. State two basic assumptions of Science

1D. Distinguish between Realism and Empiricism

2A. When is scientific fact considered valid?

2B. State the two classes of concepts and give an example of each.

2C. Define the following concepts

- i. Hypothesis
- ii. Scientific laws
- iii. Scientific theory
- iv. Declarative knowledge (DK)
- v. Procedural Knowledge (PK)

3A. What is the main concern of the philosophy of science?

3B. Name and discuss 4 philosophical thesis that talks of the modification of ideas rather than their outright rejection

4A. Explain what we meant by Ethics of science.

4B. State two ethical issues that students raise in the classroom.

4C. Who is a scientist?

4D. Name two processes a scientist used in doing his work

5A. What is creativity?

5B. List 4 characteristics traits of creative persons

5C. At what age does creativity manifest in children?

5D. Creativity helps teachers as well as students themselves. In what ways does the above assertions is or are true.