



NATIONAL OPEN UNIVERISTY OF NIGERIA

91Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja

FACULTY OF EDUCATION

FEBRUARY/MARCH EXAMINATION 2018

COURSE CODE: SED835

COURSE TITLE: LABORATORY DESIGN AND MANAGEMENT

CREDIT UNIT: 3

TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER THREE

- 1.(a) Enumerate and discuss three major behavioural objectives to assess students' performance in the laboratory (10 marks)
- (b) Computers could be applied to record and interpret scientific results. In what FIVE ways could problems be ensured in using computers in the laboratory (5 marks)
- (c) Your school approved N100,000.00 for you as running cost for the department of science education for first term 2017/2018 academic session. As the head of department, present to the College what you include in estimate with the costs attached. (10 marks)
- 2.(a) Injuries are occurrences that always hinder students' operations when in laboratory. Discuss with examples FIVE specific injuries that require immediate attention in the laboratory. (5 marks)
- (b) (i) Mention FIVE other ways of generating oxygen in the laboratory apart from air. (5 marks)
- (ii) Explain FIVE main causes of fire in the laboratory. (5 marks)
- 3.(a) Make a vivid comparison of laboratory space in the fixed and flexible designs. (5 marks)
- (b) Explain any FIVE ways in which science teachers are responsible in the laboratory. (10 marks)
- 4.(a) Laboratory equipment loose precision and accuracy due to contact vibrations. Describe FIVE sources of vibrations of laboratory equipment. (10 marks)
- (b) Prevention is better than cure. List TEN preventive measures to ensure safety in the laboratory as a science teacher. (5 marks)
- 5.(a) In dealing with hazardous chemicals, knowledge of various classes is vital. List and discuss any five classes into which hazardous chemicals are classified. (10 marks)
- (b) Differentiate between author index and subject index as relate to laboratory safety. (5 marks)
- 6.(a) Laboratories are meant to carry out and report research findings. List in sequential order TEN formal set up of a research report in the laboratory. (5 marks)
- (b) Enumerate TEN general guidelines to storage procedures for laboratory materials. (10 marks)