



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi - Abuja
FACULTY OF MANAGEMENT SCIENCES
DEPARTMENT OF BUSINESS ADMINISTRATION
2024 1 EXAMINATION

Course Code: MBA816

Course Title: QUANTITATIVE METHOD FOR MANAGEMENT

Credit Unit 3 Credits

Instruction: 1. Indicate your Matriculation Number Clearly

2. Attempt Question 1 and any other three (3) questions

3. Question 1 is compulsory and carries 25 marks while the other 3 questions carry 15 marks each.

4. Present your points in coherent and orderly manner.

Time Allowed: 2 Hours 30Mins

1a. The volume of a given mass of gas varies directly as the absolute temperature and inversely as the pressure. At absolute temperature of 3600 and at pressure of 736mm the volume is 450cm³; find a general Formula and find the volume at absolute temperature 3120 and pressure 960mm. **15 marks**

1b. Statistics is a powerful tool for analyzing numerical data; its application is widely seen in all fields of human endeavours. Elaborate on this statement. **10 marks**

2a. Solve the following expressions. **10 marks**

i. $5\frac{1}{2} \times 2\frac{2}{7} \times 7\frac{1}{33}$

ii. $5^2 \times 5^4$

iii. $(3^2)^3$

iv. $(\frac{2}{5})^5$

2b. Briefly describe the steps in solving a variation problem. **5 marks**

3a. Write explanatory notes on any two (2) of the following. **10 marks**

i. Natural number

ii. Integer

iii. Number line

3b. If 5 excavators dig the foundation of a twin skyscraper in 14 days, how long would 7 excavators take to dig the foundation of a similar project? **5 marks**