NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2021_1 EXAMINATION

COURSE TITLE: MANAGERIAL ECONOMICS
COURSE CODE: ECO 824
UNITS: 3
TIME ALLOWED: 3HOURS
INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER THREE QUESTIONS

1.   Suppose that the unit price of a commodity is defined by: $P = 100 – 2Q$ and the total cost of producing this commodity is defined by the cost function: $TC = 100 + 0.5Q2$. You are required to apply the first-order condition for profit maximization and determine the profit-maximizing level of output as well as the maximum profit.   **(17 marks)**
(b) Consumer's income is a major determinant of market demand. Discuss the four broad categories of consumer goods and services and how income affects their demand **(8 marks)**

2.   Use the table below to estimate the regression equation and forecast the quantity of sugar demanded in 2008 if the population increases to 100 million   **(15 marks)**

Year	Population (millions)	Quantity of sugar demanded (000's)
2000	10	40
2001	12	50
2002	15	60
2003	20	70
2004	25	80
2005	30	90
2006	40	100

3.   Explain Baumol's sales revenue maximization as a business objective   **(15 marks)**

4.   Explain in detail extensively the survey forecasting techniques   **(15 marks)**

5.   With the use of appropriate diagram, show how price is determined in the long run under monopoly   **(15 marks)**