NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESS WAY, JABI – ABUJA
FACULTY OF MANAGEMENT SCIENCES
DEPARTMENT OF FINANCIAL STUDI
2021_1 EXAMINATION

COURSE CODE: BFN728   **CREDIT UNIT: 2**
COURSE TITLE: QUANTITATIVE TECHNIQUE FOR FINANCIAL DECISIONS
TIME ALLOWED: TWO HOURS
INSTRUCTIONS:
1. Attempt Question One (1) and any other two (2) questions
2. Question 1 carries 30 marks, while the other questions carry 20 marks each.
3. Present all points in coherent and orderly manner

1a. The following table presents the values of the average daily wages (N) and Relative Price Index for eight months. You are required to compute the monthly real wage indices.

Month	1	2	3	4	5	6	7	8
Daily Wage	17.60	18.10	18.90	19.60	20.25	20.30	20.60	21.40
Retail Price Index	106.1	107.9	112.0	113.1	116.0	117.4	119.5	119.7

10 marks

b. Discuss the following Non-Probabilistic Sampling;
i. Judgement sampling or purposive sampling   **2.5 marks**
ii. Quota sampling technique   **2.5 marks**
iii. Chunk /convenience sampling   **2.5 marks**
iv. Volunteer sampling technique   **2.5 marks**

c. Describe data collection processes.   **10 marks**

2a. Construct the network for the following activity list: **5 marks**

Activity	Precedence Activity
A, B	C
D	A
E	B
F	C
G	D, E

b. What do you understand by Net Present Value (NPV) and Internal Rate of Return (IRR)? How are they used? **15 marks**

3a. By recording the daily demand for a perishable commodity over a period of time, a retailer was able to construct the following probability distribution for the daily demand levels:

Probability Distribution for the Daily Demand

Si	P(sj)
1	0.5
2	0.3
3	0.2
4 or more	0.0

The opportunity loss table for this demand-inventory situation is as follows:

The Opportunity Loss Table

		State of Nature, Demand		
Action	Inventory	$s_1(1)$	$s_2(2)$	$s_3(3)$
a_1	(1)	0	3	6
a_2	(2)	2	0	3
a_3	(3)	4	2	0

You are required to find the inventory level that minimises the expected opportunity loss. **10 marks**

3b. Enumerate different types of forecasting and basic forecasting techniques. **10 marks**

4a. A commodity has a steady rate of demand of 3,000 units per year. Placing an order costs N300 and it costs N50 to hold a unit for a year:

(i) Evaluation the Economic Order Quantity (EOQ) **4 marks**

(ii) What is the number of orders placed per year **3 marks**

(iii) Find the length of the inventory circle? **3 marks**

b. Enumerate various steps involved in conducting a sample survey. **10 marks**