NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI, ABUJA
FACULTY OF MANAGEMENT SCIENCES
2020_1 EXAMINATION

COURSE CODE: **BUS801** **CREDIT UNIT: 2**
COURSE TITLE: **OPERATIONS MANAGEMENT**
TIME ALLOWED: **2Hours**
INSTRUCTIONS: **1. Attempt question Number one (1) and any other two (2).**

2. Question number 1 is compulsory and carries 30 marks, while the other questions carry 20 marks each

3. Present all your points in coherent and orderly manner

1a. A toy manufacturer uses 64,000 rubber wheels per year for its popular dump truck series. The firm makes its own wheels which it can produce at a rate of 1,200 per day. The toy trucks are assembled uniformly over the entire year. Carrying cost for a production run of wheel is ₦55. The firm operates 320 days per year. Determine each of the following:

(i) Optimal run size **5Marks**

(ii) Minimum total annual cost for carrying and setup **5Marks**

(iii) Cycle time for the optimal run size **5Marks**

(iv) Run time **5Marks**

1b. Elaborate the historical evolution of Production and Operations Management. **10Marks**

2a. Write short notes on the following terms **3Marks each = 15Marks**

i. Project Process

ii. Job Process

iii. Batch Process

iv. Line Process

v. Continuous process

2b. Compare and Contrast service and manufacturing operations **5Marks**

3a. Identify and briefly explain five basic steps in the acquisition process of raw materials. **15Marks**

3b. Discuss relationship between operations strategy and corporate strategy **5Marks**

4. Succinctly explain the five basic options available for altering production capacity**. 20Marks**

5. Highlight three components of linear programming model and any five assumptions that are associated with these components. **20Marks**