(b) Explain how standardization leads to interchangeability. What are the benefits of simplification and specialization?

(CO4) (D.O. Erning E.O.O.

- (c) Write the process of new product development. Explain product life cycle with diagram. (CO4)
- 5. (a) (i) 20 pistons were selected at random for a process. The number of defects observed in each piston were 3, 4, 6, 3, 4, 6, 7, 3, 4, 7, 6, 5, 4, 3, 4, 6, 3, 4, 9 and 9. Construct the c chart.
- (ii) What do you understand by the terms AOQ, AOQL, LTPD, Consumer risk and producers risk? (CO5)
- (b) What are the various methods for quality control? What do you understand by the terms specification limits and control limits? (CO5)
- (c) What are the principles of motion economy? (CO5)

BBA-403 is not vivitable and sales and 640

output is increased to 400 kg by

H Roll No.

. (1)

## **BBA-403**

## B. B. A. (FOURTH SEMESTER) END SEMESTER

EXAMINATION, June/July, 2022

PRODUCTION MANAGEMENT

Time: Three Hours

Maximum Marks: 100

Note: (i) All questions are compulsory.

- (ii) Answer any *two* sub-questions among (a), (b) and (c) in each main question.
- (iii) Total marks in each main question are twenty.
  - (iv) Each sub-question carries 10 marks.
- 1. (a) What are the objectives of production management? What are the different factors affecting production? (CO1)
- (b) What are the factors affecting plant layout? (CO1)

(c) What are the characteristics, advantages and disadvantages of product lavout?

- 2. (a) Discuss the scope and importance of material management. (CO2)
  - (b) What is the objective and importance of production planning and control? (CO2)
  - (c) Explain different types of manufacturing systems. (CO2)
- 3. (a) In a general hospital, the demand for disposable plastic tubing in general surgery department for the last 2 months has been November-250 units, December-300 units. Using 200 units as the forecast and smoothing November coefficient of 0.7, calculate the forecast for (CO3) January.
  - An aircraft uses high tensile bolts at an approx. constant rate 50000 per year. The bolts cost ₹ 20 each and purchase department and estimated the cost at ₹ 200 to place an order. The opportunity cost on

working capital is ₹ 20 per cycle. No shortages are allowed.

- (i) Determine E.O.Q.
- (ii) Company receives the following offer from the suppliers:

Quantity	Cost per unit (in ₹)
Upto 20000	20
20000-30000	19.50
30000-45000	19.25
Above 45000	19

(CO3) Should they make this offer?

- (c) What is the significance of E.O.Q. ? Derive an expression for calculating (CO3) E.O.Q.
- What is productivity? What is its relationship with production? A company produces 160 kg of plastic molded parts of acceptable quality by consuming 200 kg of raw material for a particular period. For the next period, the output is doubled (320 kg) by consuming 420 kg of raw material and for the third period, the output is increased to 400 kg by consuming 400 kg of raw material. Calculate productivity for all the three ora (CO4) periods.