

**December 2019**  
**Bachelor of Business Administration (BBA) Examination**

**(Full Time) (New) Third Semester**  
**BB-305 : OPERATIONS MANAGEMENT**

Time 3 Hours]

[Max. Marks 80

**Note :** Attempt any three questions from Section A. Each question carries 16 marks. Attempt any two questions from Section B, each question carries 16 marks.

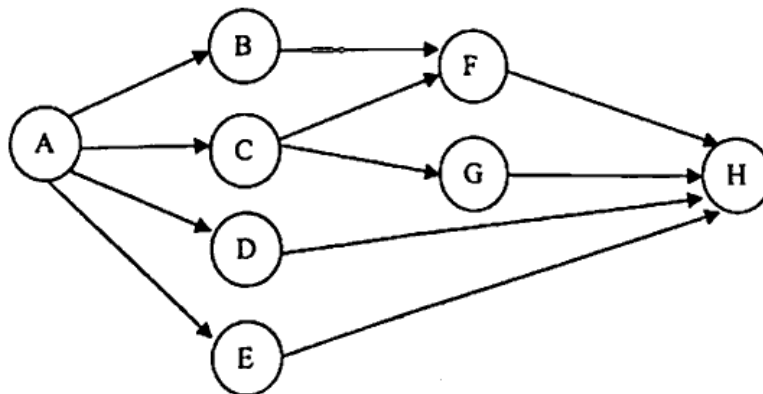
**Section A**

1. Define quality and quality control. How is quality control different from total quality control ? Explain with example.
2. What is the transformation process ? Explain the transformation process in a bank.
3. What are the key determinants of process characteristics in operations Give specific examples to show how they influence process characteristics.
4. Write the characteristics of modern manufacturing and service processes. How this has changed the role of production / operation Manager ?
5. Explain ABC analysis, VED analysis, FSN analysis and XYZ analysis in perspective of materials management.

**Section B**

6. A company manufacturer needs to design assembly stations in the factory where the cabinet housing the hard disk, mother board and other accessories is to be made. The factory currently works for one shift of 8 hours. The tasks, their duration and their precedence relationships are given below :

Task	:	A	B	C	D	E	F	G	H
Duration/seconds	:	70	80	40	20	40	30	50	50



- (a) If the cycle time is 80 seconds, what will the daily production of cabinets be ?
- (b) If the desired production rate is 320 cabinets per day, what is the maximum permissible cycle time ?
- (c) What is the maximum and minimum number, of work stations required to maintain the daily production rate ?
- (d) Design an assembly set up with 5 work stations. What are the key inferences of this exercise?

P. T. O.

7. A group company has plants in 6 different locations, whose co-ordinates in kilometers are : (100, 200), (200, 200), (200, 500), (300, 500), (400, 300) and (500, 100). The company wants to locate a centralized raw material warehouse from which the quantity of materials transported to the plants 1, 2, 3, 4, 5 and 6, in tones are 1,000, 1,200, 800, 2,000, 1,800 and 900 respectively. Find the optimal location for the warehouse.

8. From the following data draw  $\bar{x}$  and R chart and interpret them :

Sample Number	Observations				
1	10	12	13	8	9
2	7	10	8	11	9
3	11	11	9	12	10
4	10	9	8	13	11
5	8	11	11	7	7
6	11	8	8	11	10
7	10	12	13	13	9
8	10	12	12	10	12
9	12	13	11	12	10
10	10	13	7	9	12

9. The product structure of item 612, with LT in weeks is given. The MPS of item 612 shows the gross requirements as 200 and 400 units in weeks 5 and 8 respectively. Component 485 has a projected on-hand inventory of 200 units in report week 0. Prepare MRP report. (Take assumptions if required)

