Subject	Operations Management		
Roll No.		Marks	60 Marks
Total No. of Questions	7	Duration	3 Hours
Total No. of printed pages		Date	27-09-2019

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.

Q1) 20 Marks (Compulsory)

A. Case Study - Cadbury Schweppes Production Method

Cadbury Schweppes is a multinational soft drinks (beverages) and confectionery business that is based in the UK. The business is a public limited company. It is involved in the manufacture, marketing and distribution of its many branded products. Cadbury Schweppes now employs over 40000 people and its products are available in almost 200 countries. The company's products can be divided into: • Beverages (carbonated soft drinks and non carbonated soft drinks (waters and fruit juices) • Confectionery (chocolate products, sugar products, chewing gum) Much of Cadbury Schweppes' manufacturing still takes place in the UK, Australia and North Africa. However, in the 1990s the company moved some of its production to Russia, Poland, Argentina and China, countries with emerging economies. To satisfy most of its shareholders, Cadbury Schweppes' has set out a strategy to help achieve its objective. This strategy consists of:

• Creating strong regional positions through organic growth, acquisitions and disposals
• Developing strong brands through marketing
• Expanding its marketing share through innovation in products and packaging
• Regularly updating its product portfolio
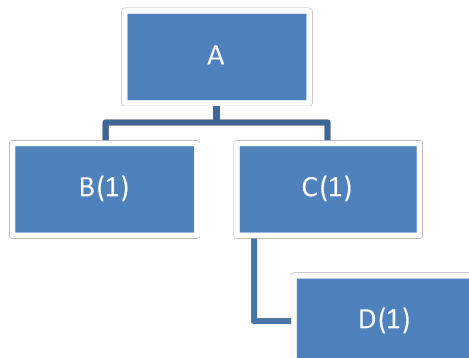
Production

Despite manufacturing its goods in large quantities, Cadbury Schweppes uses batch rather than flow production methods. The company must ensure the products are of high quality. Not only are there strict laws about how foodstuff is made, but also Cadbury Schweppes would not want to damage its reputation by allowing inferior products to be sold. Cadbury Schweppes undertakes extensive research and development (R&D) to develop new products and to find ways of manufacturing existing brands more efficiently. Cadbury Schweppes uses the services of a specialist R&D business based at Reading for its UK confectionery business

Question:

Critically evaluate the reasons why Cadbury Schweppes uses batch production when making chocolate bars. **(10 Marks)**

B. The XYZ Company has just hired you as a production manager of their north India fabrication facility. Your first job is to use MRP methodologies to schedule production for the next nine weeks. The XYZ company has given you following information to work with:

Bill of Materials:

Current inventory records:

PART	LEAD TIME (WEEKS)	LOT SIZE	INVENTORY (ON HAND)
A	1	L4L	125
B	3	100	875
C	2	L4L	55
D	1	50	900

Master Production Schedule:

weeks									
Part	1	2	3	4	5	6	7	8	9
A	100	0	0	500	0	500	100	0	95

Attempt Any FOUR from the Remaining SIX Questions

Q2) *Any two from (a) or (b) or (c) —————— (5x2) = 10 Marks*
a) Explain a transformation process using diagram for any product
b) What are components of demand?
c) Explain seven types of waste. Explain each one with an example.

Q3) *Any two from (a) or (b) or (c) —————— (5x2) = 10 Marks*
a) What are external factors which influence materials planning?
b) Explain Delphi method of qualitative forecasting
c) Using below information draw network diagram & find critical path:

Activity	Predecessor	Duration
A	-	2
B	-	6
C	-	4
D	A	3
E	C	5
F	A	4
G	B,D,E	2

Q4) *Any two from (a) or (b) or (c) —————— (5x2) = 10 Marks*
a) What are the main reasons to hold an inventory?
b) Explain integration of operations department with others
c) Compare characteristics of lean and agile supply chain

Q5) *Any two from (a) or (b) or (c) —————— (5x2) = 10 Marks*
a) Explain difference between manufacturing operations and service operations with an example
b) What information BOM carries? Explain static BOM with an example
c) Explain push, pull, make to order & made to stock with an example.

Q6) *Any two from (a) or (b) or (c) —————— (5x2) = 10 Marks*
a) What are features of Intermittent Production System?
b) Explain GOLF inventory classification technique.
c) Explain product layout structure with its advantages and disadvantages.

Q7) *Any two from (a) or (b) or (c) —————— (5x2) = 10 Marks*
a) Explain mass production flows with an example
b) From the following particulars, calculate the Economic Order Quantity (EOQ):

Annual requirements	1,600 units
Cost of materials per units	Rs. 40
Cost of placing and receiving one order	Rs. 50
Annual carrying cost for inventory value	10%

c) Explain independent & dependent demand with an example.