

**PG Even Semester (CBCS) Exam., April—2017**

**BUSINESS ADMINISTRATION**

**( 2nd Semester )**

Course No. : MBACC-206

**( Operations Management )**

*Full Marks : 70*

*Pass Marks : 28*

*Time : 3 hours*

*The figures in the margin indicate full marks  
for the questions*

Answer **all** questions

1. Read the case and answer the following questions :

Roots Corporation Limited is a fully owned subsidiary of the Indian Hotels Company Limited (IHCL), which is a part of the Tata Group. With more than 90 properties, IHCL is India's largest hotel chain. Roots Corporation Limited operates a group of hotels under the brand name Ginger Hotels. The first hotel was launched in Whitefield, Bangalore, in June 2004. At a glance, a Ginger Hotel will appear to be very similar to any other hotel. A Ginger Hotel offers all the facilities that a normal hotel would offer.

These include check in facilities, rooms with a TV, fridge and a tea/coffeemaker; room services such as laundry, restaurants; digital safes, Wi-Fi connections, meeting rooms, a business centre, gymnasium, car rental service, doctor on call and currency exchange. However, the similarity ends at this level. A Ginger Hotel distinguishes itself in several ways in the manner these services are offered. Unlike other hotels offer a limited a' la Carte menu in the restaurant at a nominal price. In case, a guest does not like what is being offered, it is possible to call up nearby restaurants, place an order and collect the food from the Give n' Take counter in the hotel. The rooms are compact and well-maintained, and are available at a price that is much lower than the price charged by other hotels for a similar service. "Please help yourselves" is a line that can be seen on most of the brochures and booklets in a Ginger Hotel and it aptly reflects its most distinguishing feature. It is not uncommon for guests to use the self-service check in kiosk, identify their rooms and carry their luggages to the room. As soon as a guest enters a Ginger Hotel, he/she will come across several operations with a self-service facility. Some elements of self-service are—self-service check in, Give n' Take

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Counter, Smart Get Set, Smart Knick Knacks and Smart Mart. The company summarizes “the Ginger experience” as one providing intelligent, well-thought-out facilities and services at great value and with no frills attached.

- (a) How will you describe the overall strategy of Ginger Hotels in the hotel industry? Is the operations strategy consistent with the overall strategy?
- (b) Can you identify the strategic and operational benefits that Ginger Hotel is likely to derive from the operations strategy and operations system design that it has chosen?  $7+7=14$
2. How does aggregate production plan help operations manager? Differentiate between chase strategy and level strategy of aggregate production planning.  $8+6=14$

**OR**

3. (a) Mention the Johnson’s rule of scheduling  $n$  jobs with two machines.

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- (b) Five jobs are to be scheduled in two machines in a manufacturing shop. All the five jobs undergo processing in both machines (flow shop)—

Job No.	Processing time (in hrs)	
	Machine 1	Machine 2
1	4	7
2	6	3
3	2	3
4	7	7
5	8	6

Identify the best sequence using Johnson’s rule.  $8+6=14$

4. Read the following case and answer the following questions :

The Indian Government has drawn up plans to generate 785777 MW of power in the next five years. The thrust on power generation is essential to accelerate the economic development of the country. India’s power equipment needs as of now estimated at ₹ 3 trillion. There is a huge demand for power equipment such as generators, turbines, fans, blowers and boilers. Bharat Heavy Electricals Limited (BHEL), the main manufacturer and supplier of power equipment in India, is grappling with orders

worth ₹ 900 billion. It is not able to accept fresh orders because of insufficient capacity. This has come as a boon for several Chinese firms that are making deep inroads into BHEL's market. Some of the main suppliers from China include Shanghai Electric, Harbin Power and Dongfang Electric. These companies have succeeded in obtaining orders as their quoted price is said to be cheaper by 10% to 15% and they promise faster delivery schedules. This has prompted many Indian companies like Reliance Energy, Vedanta, JSW Energy as well as several State Government utilities in Haryana, Chattisgarh and West Bengal to place orders with Chinese firms. The prices quoted by the Chinese companies are said to be low on account of the low cost of manufacturing and economy of scale in their operations. BHEL raised concerns over the quality of the equipment supplied by the Chinese companies recently. One of the turbines supplied by Dongfang for the West Bengal Power Development Corporation's 300 MW Sagardighi project failed recently. In another instance at BALCO, the coal mill (which pulverizes the coal for easy burning) is said to be running without an evacuation chute. Although this does not create any problem during normal functioning, this could lead to a disaster in case a fire breaks

out. Also at BALCO, the fans that blow the powdered coal into the boilers were inadequately powered. The quality concerns assume greater significance as equipment for about 20000 MW production has already been ordered from Chinese companies. Almost 40% of the order has been placed with Dongfang Electric Company. Based on apprehension about quality, the Central Electricity Authority (CEA), India's apex power sector planning body, has formed an Internal group to conduct a technical audit of such equipment. According to a former engineer at BHEL, if Chinese firms custom-design for Indian coal and manufacturing companies, they would be costlier than BHEL products. Industry experts are now seriously debating the quality issues of Chinese equipment and have welcomed the audit by Government authorities.

- (a) How should the quality of Chinese power equipment be verified?
- (b) Is setting up a committee for technical audit a good solution to the quality problem?
- (c) How do you resolve the 'quality-cost' issue?  
5+5+4=14

( 7 )

5. What are the costs associated with inventory? Mention the managerial applications of ABC analysis. 7+7=14

**OR**

6. Find the optimal order quantity for the following price break inventory problem : 14

Annual demand = 3600 units

Inventory carrying cost = 20%

Ordering cost is ₹ 20 per order

<i>Quantity</i>	<i>Price</i> (₹)
0-499	10
500-999	9
over 999	8

7. Why do operations managers give maximum importance to maintenance issues of equipments and machines? Discuss the different types of maintenance techniques known to you. 7+7=14

**OR**

8. Write short notes on the following : 7×2=14

(a) Work study

(b) Reliability engineering

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