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|---|---|---|
| <b>Name:</b>  |   |  |
| <b>Enrolment No:</b>                                      |   |   |
| <b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b>         |   |   |
| <b>End Semester Examination, December 2019</b>            |   |   |
| <b>Course: LSCM 8002 Business Process Re- Engineering</b> |   | <b>Semester: III</b>  |
| <b>Programme: MBA LSCM</b>                                |   |   |
| <b>Time: 03 hrs.</b>                                      |   | <b>Max. Marks: 100</b>  |
| <b>Instructions: As per sections</b>                      |   |   |
| <b>SECTION A</b>  |   |   |
| <b>S. No.</b>   | <b>Attempt all questions (2x10 =20 marks)</b>   | <b>CO</b>   |
| <b>Q 1</b>  | <b>Discuss briefly the following</b>  |   |
| a)  | Significance of CMMI Model.   | <b>CO 1</b>   |
| b)  | Significance of Demand Planner in supply chain.   | <b>CO 1</b>   |
| c)  | Kurt Lewin's process of change.   | <b>CO 4</b>   |
| d)  | Significance of Work Study in BPR.  | <b>CO 2</b>   |
| e)  | IT is the backbone of BPR. Comment.   | <b>CO 3</b>   |
| f)  | Differentiate Vision from Mission.  | <b>CO 2</b>   |
| g)  | Importance of social design in BPR methodology  | <b>CO 4</b>   |
| h)  | NVA.  | <b>CO 2</b>   |
| i)  | Restructuring Vs Reengineering  | <b>CO 2</b>   |
| j)  | Significance of RCA   | <b>CO 1</b>   |
| <b>SECTION B</b>  |   |   |
|   | <b>Attempt any four questions (4x5 =20 marks)</b>   |   |
|   | Q3. Discuss any two similarities and two differences between TQM and BPR.   | <b>CO 2</b>   |
|   | Q4. Discuss the following paragraph:<br>“Considering that BPM is based on the use of workflows to manage, update and track data and information, the best way companies have to achieve improved performance is to take the IoT to the next level with BPM. The IoT can have a disruptive impact on the business processes, its adoption can represent an important innovation source for companies only if correctly planned and managed. Still one of the biggest challenges in implementing IoT is to define the right level of integration between human and automated capabilities.” | <b>CO 3</b>   |

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| Q5. How Therbligs are used in work study in the industry? Give suitable examples.   | CO 2 |
| Q6. Discuss various applications of ERP. Discuss the changes witnessed in operations and supply chain processes with implementation of ERP. | CO 3 |
| Q7. Traditional retailers need to re-engineer their business processes to compete with e-tailers. Comment                                   | CO 4 |

**SECTION-C**

**Note: Attempt any three questions. Each question carries 10 marks.**

|  |      |
|--|------|
| Q8. Discuss “Customer Driven Re-engineering” in the success of Pillsbury?  | CO 3 |
| Q9. You are one of the Placement Coordinators in final year in MBA-LSCM and you are supposed to support the LSCM department for the placement process and academic department for the preparation session, how would you make the process more effective for better outcomes. You are required to attempt the following:<br>1. Draw a process flow chart for arranging a campus interview.<br>2. Draw a process control sheet for the placement process. What would be KPIs for the placement process? | CO 2 |
| Q10. What are the steps involved in BPR Implementation?  | CO 1 |

| Q11. A manufacturing company has conducted a time study for 10 cycles of a job. The job has five elements, and the total elemental times (minutes) for each element and performance rating factors are as follows:   | CO 2 |                    |                    |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |
|--|------|--------------------|--------------------|----|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">ELEMENT</th> <th style="text-align: center;"><math>\sum t( Minutes)</math></th> <th style="text-align: center;">RF</th> </tr> </thead> <tbody> <tr> <td>1</td> <td style="text-align: center;">3.61</td> <td style="text-align: center;">1.05</td> </tr> <tr> <td>2</td> <td style="text-align: center;">4.84</td> <td style="text-align: center;">0.90</td> </tr> <tr> <td>3</td> <td style="text-align: center;">2.93</td> <td style="text-align: center;">1.00</td> </tr> <tr> <td>4</td> <td style="text-align: center;">4.91</td> <td style="text-align: center;">1.10</td> </tr> <tr> <td>5</td> <td style="text-align: center;">1.78</td> <td style="text-align: center;">0.95</td> </tr> </tbody> </table> |      | ELEMENT            | $\sum t( Minutes)$ | RF | 1 | 3.61 | 1.05 | 2 | 4.84 | 0.90 | 3 | 2.93 | 1.00 | 4 | 4.91 | 1.10 | 5 | 1.78 | 0.95 |
| ELEMENT  |      | $\sum t( Minutes)$ | RF                 |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |
| 1  |      | 3.61               | 1.05               |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |
| 2  |      | 4.84               | 0.90               |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |
| 3  |      | 2.93               | 1.00               |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |
| 4  |      | 4.91               | 1.10               |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |
| 5  | 1.78 | 0.95               |                    |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |
| i. Compute the standard time using an allowance factor of 18%.   |      |                    |                    |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |
| ii. If the sample standard deviation is 0.23, determine the sample size, <i>n</i> , for a time study so there is 98% confidence that the average time computed from the time study is within 4% of the actual average cycle time.  |      |                    |                    |    |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |

**SECTION-D**

**Q12. Read the following case and answer the questions given below (3x10=30 marks)**

### **The NOVA Electronics Company**

The **NOVA** company had implemented a TQM program for over a decade and had already established widespread quality management systems throughout the company which were well embedded in the organization culture. However, the company's management was aware that its performance measurement systems remained functionally based. Moreover, despite many attempts to improve inter-functional communication, there was little day-to-day communication between staff of different functions at ground level; and it was believed that customer service suffered due to poor handovers between functions, with customers typically interfacing with at least seven different functions.

In pursuit of a differentiation strategy and with the aim of increasing the company's responsiveness to the customer, the organization re-structured along process lines in the mid-2000s. The functional directors of sales, marketing, and after-sales service were eliminated from the structure. Six regionally based Customer Business Units were introduced with full operational responsibility, each with its own General Manager and each with its own teams of functional expertise. A process structure was overlaid onto this structure, based on four Strategic Business Divisions, each division covering a different product and market segment. The new structure was perceived by the management of the company to bring a number of benefits. The CBUs were more focused on the market requirement of their industry sectors, resulting in improved key account management. Communication between the functions was perceived to improve and the CBUs became more business oriented. Because the CBUs were so much smaller, there was more communication and closer collaboration between the functions within each CBU. Functional organization structures were flattened, and the span of management control increased significantly. For example, a manager would be responsible for around 100 service engineers, or 10 self-managed work groups. The work groups were highly empowered, the engineers being responsible for job scheduling, workload management, individual appraisals and even salary reviews. All these changes, brought about in the wake of the new process structure, are in line with Hammer and Stanton's best practice recommendations, as well as Majchrzak and Wang's guidelines on cultivating collective responsibility.

There were, however, some perceived costs to the new structure, particularly with regard to the performance of the service function. Service response times were perceived to have dropped for a number of reasons. First, CBU managers came from the sales rather than a service background and their focus was therefore on sales growth rather than service excellence, despite the fact that the latter brought in around 60% of annual revenues. Secondly, reward schemes were based on sales volume and service engineers' bonuses, which had previously been based both on productivity and customer satisfaction, were now based entirely on internal measures of performance (response times, weighted jobs per day and cost of materials). The customer survey used to routinely monitor customer satisfaction with

service engineers was discontinued. Some managers also took the view that the span of control was too great and that self-managed work groups were beginning to manage workloads and schedules to suit themselves rather than with a view to cost efficiency.

In the late 2000s the organization underwent another major re-engineering which reverted to a functionally based structure. With aggressive cost competition from competitors who were driving costs down through product standardization and modular design, cost control became a major strategic focus. Sales and marketing, and service directors were re-introduced and there was a directive to reduce manning levels across the organization. It was considered that managing the service function centrally would bring benefits in terms of cost efficiency and tighter utilization of resources. So, engineers' discretion was reduced, scheduling was centralized, and team managers were introduced, each in charge of 20 engineers, to manage the teams and conduct appraisals and salary reviews. The operations network was also re-engineered with increased outsourcing in both the service and sales functions.

1. Are the new structures adopted in the wake of BPR implementation genuinely process based, or are they overlaid onto the traditional functions in a matrix structure?
2. Do the new structures actually result in the erosion of functional barriers, and have new organizational barriers emerged?
3. "The lack of focus on functional excellence may be seen to be a negative bi-product of the process structure". Comment on this statement in the light of effect on service level due to reengineering process.

**CO 2**  
**CO 3**  
**CO 4**