

Sub: **Technology and Operational Strategy**

Code: **20MBA302**

Date: **21-02-2021**

Duration: 90 mins

Max Marks: 50

Sem: III


Branch: MBA

OBE

Marks CO RBT

Part A -Answer Any Two Full Questions (20*02=40 Marks)			
1(a)	<p>Define TQM.</p> <p>A core definition of total quality management (TQM) describes a management approach to long-term success through customer satisfaction. Total Quality Management (TQM) is a business management strategy aimed at embedding awareness of quality in all organizational processes.</p>	[03]	CO5 L1
(b)	<p>Discuss the functions of ISO.</p> <p>Industry</p> <ul style="list-style-type: none"> • Become more competitive by offering products and services that are accepted globally · • Enter new markets easily · • Raise profits by offering products with increased quality, compatibility and safety · • Reduce costs by not reinventing the wheel and using available resources better · • Benefit from the knowledge and best practice of leading experts around the world <p>Regulators</p> <ul style="list-style-type: none"> • Harmonize regulations across countries to boost global trade · • Increase credibility and trust throughout the supply chain · • Make it easier for countries to outsource and specialize <p>Society</p> <ul style="list-style-type: none"> • Wider choice of safe and reliable products and services at competitive prices · • Best practice and concerted action at the organizational level to practically address global challenges like climate change and sustainability. 	[07]	CO5 L2
(c)	<p>Explain the features of TQM.</p> <ul style="list-style-type: none"> • Commitment to customer needs. • Close link with the supply chain • Personal responsibility by employees • Company wide policy for all staff • Emphasis on teamwork • Clear measures of “Quality” • Information gathering to support these measures • Well-used 2-way communication systems. 	[10]	CO5 L2
2(a)	<p>Define accreditation.</p> <p>Accreditation is the formal recognition by an independent party (generally known as an “ accreditation body ”) that a certification body operates according to International Standards – a form of certification of the certifying body</p>	[03]	CO5 L1
(b)	<p>Discuss about building blocks of TQM.</p> <ol style="list-style-type: none"> 1. Customer focused 2. Total employee involvement 3. Process centered 4. Integrated system 5. Strategic, Systematic approach 6. Continual improvement 7. Fact-based decision making 8. Communications 	[07]	CO5 L2

(c)	<p>Explain importance of ISO 14000 by mentioning an example.</p> <p>An environmental management system helps organizations identify, manage, monitor and control their environmental issues in a “ holistic ” manner.</p> <p>ISO 14001 is suitable for organizations of all types and sizes, be they private, not-for-profit or governmental.</p> <ul style="list-style-type: none"> • It requires that an organization considers all environmental issues relevant to its operations, such as <ul style="list-style-type: none"> – air pollution, – water and sewage issues, – waste management, – soil contamination, – climate change mitigation and adaptation, – resource use and efficiency. <p>Example - Premier Foods</p> <ul style="list-style-type: none"> • “Since 2001, we have used ISO 14001 to make big improvements such as increasing our organization’s recycling rate. • We have now been at “zero landfill” since March 2013 and are recycling and reusing 100 % of our site wastes. • We have continued to improve our relationship with neighbours because we have the processes in place to respond quickly to any concerns. • Among other benefits, our processes and the appointment of Green Matters Champions ensure that staff are environmentally engaged and aware of the site’s potential impact on the environment.” 	[10]	CO5	L2
3(a)	<p>Define benchmarking.</p> <p>Benchmarking is an approach of setting goals and measuring productivity based on best industry practices.</p> <p>Benchmarking helps in improving performance by learning from best practices and the processes by which they are achieved.</p>	[03]	CO5	L1
(b)	<p>Explain FMEA.</p> <p>"Failure modes" means the ways, or modes, in which something might fail. Failures are any errors or defects, especially ones that affect the customer, and can be potential or actual.</p> <p>"Effects analysis" refers to studying the consequences of those failures. Failures are prioritized according to how serious their consequences are, how frequently they occur, and how easily they can be detected.</p> <p>The purpose of the FMEA is to take actions to eliminate or reduce failures, starting with the highest-priority ones.</p>	[07]	CO5	L2
(c)	<p>Apply Six Sigma DMAIC method to service organization of your choice to improve the prevailing business system.</p>	[10]	CO5	L3

DMAIC				
<p>DMAIC is a five-step method for improving existing process problems with unknown causes.</p> 				
Part B - Compulsory (01*10=10marks)				
4	<p>As management consultant, apply QFD - Quality Function Deployment for mobile manufacturing company and assist them to satisfy their customers.</p> <p>Also called: matrix product planning, <u>decision matrices</u>, customer-driven engineering</p> <p>QFD is a focused methodology for carefully listening to the voice of the customer and then effectively responding to those needs and expectations</p> <ul style="list-style-type: none"> In QFD, quality is a measure of customer satisfaction with a product or a service. QFD is a structured method that uses the seven management and planning tools to identify and prioritize customers' expectations quickly and effectively. Beginning with the initial matrix, commonly termed the House of Quality <p>QFD Voice of the customer Product characteristics Competitive value Relationship matrix Importance of rating, Technical difficulty, Target value</p>	[10]	CO2	L3

Course Outcomes		A	O	C	P	O	S
CO1	Acquire the knowledge about the concepts of production and operation management						
CO2	Demonstrate the basic concepts of process mapping						
CO3	Evaluate the importance of Lean Manufacturing						
CO4	Develop strategies of Total quality management						1a, 1c, 2b, 3a, 3b, 4
CO5	Understand the roles of ISO standards and production system				1b, 2a, 2c, 3c		
Cognitive level	KEYWORDS						
L1	list, define, tell, describe, recite, recall, identify, show, label, tabulate, quote, name, who, when, where, etc.						
L2	describe, explain, paraphrase, restate, associate, contrast, summarize, differentiate interpret, discuss						
L3	calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, experiment, show, examine, modify						
L4	classify, outline, break down, categorize, analyze, diagram, illustrate, infer, select						
L5	grade, test, measure, defend, recommend, convince, select, judge, support, conclude, argue, justify, compare, summarize, evaluate						

L6	design, formulate, build, invent, create, compose, generate, derive, modify, develop, integrate
<i>PO1–Theoretical Knowledge;</i>	<i>PO2–Effective Communication Skills;</i>
<i>PO4 –Sustained Research Orientation; PO5 –Self-Sustaining Entrepreneurship</i>	<i>PO3–Leadership Qualities;</i>

CCI

HOD