

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Technology Management	Semester: III
Program: BBA (Logistics Management)	Time: 03 Hours
Course code: LSCM 2001	Max. Marks: 100

Instructions: Answer all sections as directed there.

SECTION A

		Marks	CO
Q 1	Answer <u>all</u> questions. Overwriting is not permissible.	20	
(i)	_____ is also known as cognitive technology.	1	1
(ii)	Syndication spans over _____ and _____ stages of TLC.	2	1
(iii)	Innovation spans over _____ and _____ stages of TLC.	2	1
(iv)	A long range technology plan spans over (5-10)/ (10-20) / (above 20) years.	1	1
(v)	According to _____ Law: microchips will double in power and halve in price every 18 months.	1	1
(vi)	DST stands for _____.	1	1
(vii)	CSIR stands for _____.	1	1
(viii)	In PLC graph the vertical axis represents sales (volume or revenue). Similarly, in TLC graph, the vertical axis represents _____.	1	1
(ix)	Technological resources of a company are always substitutable. [True/ False]	1	1
(x)	The focus of technology management has shifted from 'economies of scope' to 'economies of scale'. [True/ False]	1	1
(xi)	TLC is getting shorter day by day like the PLC. [True/ False]	1	1
(xi)	In which phase of TLC, the first application of technology takes place.	2	1
(xii)	Technology is derived from two Greek words 'techne' and 'loges'. What do these two Mean?	2	1
(xiii)	_____ is the ability to combine ideas in new ways to solve problems and exploit opportunities.	1	1
(xiv)	_____ is the successful application of new ideas in practice in the form of new or improved products, services or processes.	1	1
(xv)	Technology is a productivity multiplier. [True/ False]	1	1
(xvi)	Technology is a product of R&D. [True/ False]	1	1

SECTION B

Q 2	Answer any <u>four</u> questions.	20	
(i)	What is the role of government in technology management of a country like India?	5	1

(ii)	Describe how the technology is integrated with the overall strategic objectives of a Company.	5	1, 2
(iii)	Write a short note on 'Environment Friendly Technology'.	5	1, 5
(iv)	Write a short note on 'Internet of Things, IoT'.	5	1, 2
(v)	Write a short note on 'Technology Risk'.	5	1, 2
(vi)	Describe the significance of technology with respect to the value chain.	5	1, 4

SECTION-C

Q 3	Answer any <u>three</u> questions.	30	
(i)	What is appropriate technology? Explain, how appropriateness of a technology is judged and developed for a technology.	10	2
(ii)	What are the positive and negative points appearing before India in the process of developing its R&D capabilities?	10	2
(iii)	Describe the journey of a technology throughout its life cycle.	10	1, 4
(iv)	Can India rank well among the nations in the world by using technology management?	10	4
(v)	Explain how crucial is the role of a technology manager?	10	4

SECTION-D

Q 4	Read the CASE and answer the related questions.	30	
	<p style="text-align: center;">NASA TECHNOLOGY TRANSFER PROGRAMS</p> <p>NASA has reshaped its technology transfer program by making commercial technology transfer an integral part of the agency mission. The objective of this mission is to involve proactively private sector participation in every NASA program from the outset. This way, technology developed in the course of each aeronautics and space program is likely to have an immediate commercial linkage and a good potential for transfer.</p> <p>A recent article (Comstock and Lockney, 2007) described how NASA has nurtured partnerships with the private sector to facilitate the transfer of NASA developed technologies to benefit society. The following is a description of the NASA Innovative Partnership Program as described on the agency's website.</p> <p>The Innovative Partnership Program (IPP) provides needed technology and capabilities for NASA's Mission Directorates, Programs and Projects through investments and partnerships with Industry, Academia, Government Agencies and national Laboratories. As one of NASA's Mission Support Offices, IPP supports all Mission Directorates and has Program Offices at each of the NASA Centers. In addition to leveraged technology investments, dual-use technology-related partnerships, and technology solutions for NASA, IPP enables cost avoidance, and accelerates technology maturation. IPP also seeks to be a facilitator and catalyst for</p>		

	<p>innovation in technology transfer—or spinoffs—to provide solutions to the private sector or other government agencies with NASA-developed technology resulting in public benefit. IPP achieves these mission objectives through a network of offices at each of NASA’s 10 field centers.</p> <p>IPP consists of the following program elements: Technology Infusion which includes the Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) Programs and the IPP Seed Fund; Innovation Incubator which includes Centennial Challenges and new efforts such as facilitating the purchase of services from the emerging commercial space sector; and Partnership Development which includes Intellectual Property management and Technology Transfer, and new innovative partnerships. Together these program elements increase NASA’s connection to emerging technologies in external communities, enable targeted positioning of NASA’s technology portfolio in selected areas, and secure NASA’s intellectual property to provide fair access and to support NASA’s strategic goals. Technology transfer through dual-use partnerships and licensing also creates many important socio-economic benefits within the broader community.</p> <p><small>[Source: Jain, Triandis and Weick (2010), <i>Managing Research, Development, and Innovation – Managing the Unmanageable</i>, John Wiley & Sons Inc., pp. 228-229.]</small></p>		
(i)	What is ‘figure of merit’?	5	3, 4
(ii)	Describe the ‘technology climate’ of the company in the case.	5	1
(iii)	How the ‘figure of merit’ in this case is achieved through technology management?	20	4