Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA (International Business) – SEMESTER 1 – EXAMINATION – SUMMER 2019

Subject Code:1519307 Date:16/05/2019

Subject Name: Information Technology & Global Business

Time:02:30 PM To 05:30 PM Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1		Definitions (a) Project Initiation (b) Supply Chain Visibility (c) Web Mining (d) Degree of Digitization (a) Four main global strategies (b) Forward Auctions (c) Upselling	14
Q.2	(a)	Information systems plays important role in transforming business globally. Explain	07
	(b)	Data and information are useless if not used properly. How it can be utilized to gain the knowledge and help the organization in decision making.	07
		OR	
	(b)	Discuss Contemporary Approaches to Information System	07
Q.3	(a)	Discuss business intelligent infrastructure in brief.	07
	(b)	E-commerce mechanism is advisable to understand before use. Discuss Major E-Commerce Mechanisms	07
		OR	
Q.3	(a)	Explain ethical issues in e-commerce	07
	(b)	Explain Customer touching applications in context of CRM	07
Q.4	(a)	Discuss various flows and segments of supply chain management.	07
	(b)	Discuss Triple Constraints of Project Management	07
		OR	
Q.4	(a)	Explain hierarchy and network model in detail with suitable example.	07
	(b)	Explain ER model in brief with its advantages and give suitable example	07

Q.5 United Parcel Service's global operations are driven by its information systems technology. What UPS can do is largely a function of its information technology investments. Beginning as a local delivery service in 1907, UPS expanded on the West coast initially, reached New York in the 1930s, and went international in the 1970s. Today, UPS delivers over 18 million packages daily to 220 countries and territories, requiring the talents of 70,000 drivers who are wirelessly connected to UPS databases located in seventeen major data centers throughout the world. UPS maintains a fleet of 95,000 delivery vehicles, and 230 aircraft worldwide. A multiyear, multi-billion-dollar investment in technology drove the growth of UPS over the last twenty-five years, beginning in 1990. This investment enabled the development of the DIAD, the Delivery Information Acquisition Device, and now in its fifth generation. The DIAD has been a key element in UPS's business technology platform because it connects the drivers to UPS central systems for tracking and delivering packages. UPS was the first firm to use mobile wireless technology for day-to-day operations, and it achieved this distinction twenty years before the iPhone and other smartphones. In 2015, it expects to have deployed over 100,000 new DIAD V units. The new DIAD V performs all the functions of the previous models, but adds additional functionality, better hardware and software, resulting in an ergonomically superior fit for drivers, as well as advances in productivity. For customers, the DIAD platform ensures their packages are tracked in real time from pickup to delivery. DIAD V the DIAD V takes full advantage of newer consumer technologies with this version's touchscreen, camera, speedy processor, and 1 GB of memory, at half the size of its predecessor. DIAD V was developed with Honeywell International Inc. and it is the first in the industry to leverage Gobi radio technology that allows instant switching of cellular carriers if one carrier's signal is lost, ensuring the device stays connected to the UPS network throughout the day. The new DIAD V also has a color camera that could be used to enhance proof-of delivery information. It also has a color display and microprocessor with expanded memory to support driver training and future applications including navigation. For example, the DIAD V could be used to enable maps to help a driver avoid a traffic jam.Here's a look at the new features of the latest mobile device:

Roaming: The DIAD V monitors wireless performance and can switch automatically to the strongest carrier signal. The cell connection is vital to the system because it enables continuous reporting to the data center on the progress of packages through the system, and provides customers with instant online access to their package location. The new roaming software also means that UPS can choose to use the least expensive cell service for any given service area assuming signal strength is the same for each carrier.

Touchscreen: The new DIAD has a touchscreen that will likely boost driver productivity. UPS puts the devices through a gauntlet of tests like drops from six feet, heat, cold, and torrential rain that would kill most smartphones.

New Hardware: The DIAD V weighs in at about half the size and weight of the DIAD IV (about 1.5 lbs). It has 1 GB of flash memory, with a micro-SD slot that lets it expand to 32 GB (compared to the older DIAD 4 with 128 megabytes of storage). Its 1 GHz processsor means it can run much more powerful apps than the previous version, apps that integrate via the wireless connection with server-side systems. That computer power will let UPS offer more personalized services, building on the My Choice service it launched last year, which lets customers create personalized delivery options, such as leaving packages with a particular neighbor if they're not home.

Camera: A small camera of 3 megapixels has been added to the DIAD V although it has not yet been enabled. In the future UPS plans to use the camera to document proof of delivery and the extent of damage to packages. The images are uploaded over the company Wi-Fi networks when the trucks are parked for the night.
Navigation: The new device lets UPS upload the route information a driver needs to go from site to site throughout the day. Like the DIAD IV, the new devices have GPS, so UPS knows where the driver is at any time and provides real-time navigation, telling drivers the best way to get to their next destination.

UPS Worldport
The information provided by the mobile DIAD devices is fed into local and regional data centers, and from there to UPS Worldport, the largest automated package handling facility in the world. It is also one of the largest data centers in the United States. Located in Lexington, Kentucky, Worldport occupies 5 million square feet (about 90 football fields), and can sort 400,000 packages an hour. UPS started building Worldport in 2000, and has continuously expanded the facility to handle hundreds of thousands of packages generated everyday by customers ordering online. UPS is by far the largest package delivery service for e-commerce packages. Without UPS, it is doubtful that e-commerce could have grown so rapidly. Outside of FedEx, UPS has no competitors of equal scale and IT sophistication. But this situation could change in the future as Amazon considers developing its own package delivery fleet of trucks, planes, and drones. Uber is considering creating a same-day delivery service using its on-demand services business model, and relying on private contractors who own their own vehicles to deliver packages. And the United States Post Office has extended its traditional package delivery service into a highly automated system with over 150,000 collection boxes, 200,000 vehicles, and 70,000 drivers. USPS already delivers one-third of all the packages delivered in the United States.

UPS faces a number of challenges keeping up with mobile technology. The pace of technological change is arguably faster now than in the past. It took UPS seven years after deployment of DIAD IV to deploy the DIAD V. If UPS waits this long again, it's possible another competitor will be faster to market with a superior technology platform.

(a) How does the DIAD help drivers deliver packages? What improvements were made in the DIAD V? 07

(b) Why does UPS serve as an example of a "Digital firm" as described? 07

OR

Q.5 (a) How many times are packages handled by humans once they reach Worldport? Why is this important? 07

(b) How does UPS's investment in IT help it achieve the strategic business objectives described? 07