Program: MIM – IV Sem. (*2017-20 Batch*)
Subject: IT Infrastructure Library
(End Term Examination)

Time: 3 Hrs.

Note: Question 1 is compulsory
Attempt any 4 out of remaining 7

Marks: 50

Q. 1 ITIL life cycle and all its stages along with its ITIL history in detail? — 10 Marks

Q. 2 How availability and capacity management affects the IT service design in ITIL. Explain with example. — 10 Marks

Q. 3 Draw seven step improvement process diagrams to explain CSI process. — 10 Marks

Q. 4 Explain touch points in service design how they help organization to design customer journey map, explain with journey map example. — 10 Marks

Q. 5 What are 4P's of IT service strategy? List and explain strategy evaluation factors. — 10 Marks

Q. 6 Explain incident, event and problem management process with suitable example. — 10 Marks

Q. 7 How service design influence business value? Explain how to manage service level management process to justify your answer. — 10 Marks

Q. 8 Read the case study given and answer these questions:
   1. What were the key problem areas which demanded the organization to go with ITIL implementation?
   2. What were the organizations benefits of successful ITIL implementation from business and employee perspective?
   3. Explain organizations new global ITIL based service management process and its benefits.

Case Study - Energy Company uses ITIL to power its new world-class global operations

Background

Employing 100,000 people and with operations in six continents and over 100 countries, this global energy group is one of the 10 largest companies in the world. Following a series of major acquisitions and mergers, in 2004 the company implemented a radical change to its business model. Alongside introducing a strong focus on growth within its customer-facing segments, all business functions would be redesigned to optimize quality and efficiency. For the Global Operations Organisation helping to shape a new company meant establishing excellence through the formation of a world-class operation capable of delivering a consistent and truly global service.

The creation of a planned three-year TOP (transformation operations processes) programme would ultimately involve the consolidation of over 430 data centers into just four mega data centers, as well as the migration from a regional model to a global service line. In addition to helping to leverage business opportunities, a further key gain would be a reduction in unit operating costs. Between 2003 and 2005 the target was to realize a decrease of around 25%—the user population for IT is around 80,000, with annual operating costs running at over $1 million.

The challenge

Standardising and centralizing the global infrastructure and operations would enable the company to respond quickly, and at scale, to worldwide opportunities. A key element of the project strategy was the implementation of standard global service management processes across the whole enterprise.

"It became clear that to obtain world-class standards of service delivery, the enterprise would need to adopt a framework based on ITIL®—widely accepted as the industry leader in delivering operationally excellent processes," explains the Programme Director. "We needed to provide our global service management and delivery operational functions with self-sustaining processes that would support and help deliver world-class operations."

The project team had already identified a number of clear gains this would deliver for IT. Creating a platform for continued service management process re-engineering would fashion an environment where the company could 'plug and play' suppliers to meet the evolving service demands of its businesses. Alongside aligning service to business needs, the new process infrastructure would help to satisfy regulatory requirements for IT governance, such as Sarbanes-Oxley. It would also pave the way to achieving short-term 'wins' through the removal of inefficiency and waste, while simultaneously protecting large-scale planned infrastructure investments. Finally, eradicating process weakness would eliminate the risk of future service interruptions.

The solution

Pink Elephant led a rigorous appraisal programme; reviews for Europe were conducted in the UK and Germany, the America region and Singapore for the Asia Pacific region. The assessment data on all service management processes, with the exception of Change Management, was then benchmarked against industry and peer performance.

"The findings, which were based on the evolving business and technology environment, helped the project team determine on the initial delivery of four key processes to a very high level—Incident, Problem, Change and Release Management— to kick-start our transformation to world-class operations," says the Programme Director. "It also helped us define a future sequence for implementing the

remaining ITIL processes."

The journey to achieving fully functioning Service Management capability was to be conducted in a dynamic environment— which included the consolidation of data centers and roll-out of a new desktop environment—and involved the deployment of processes on a global scale over a two-year period. Processes would be designed and built in one region which would lead the globalization of that process. Joint supplier workshops would help ensure full commitment from all parties to the ITIL-based process approach to IT operations.

"If we were to succeed, we needed to capture the hearts and minds of leaders across the whole organization," continues the Programme Director. "Education and training were going to be essential if we were to prepare our people to embrace change and a new way of working." An integrated learning solution was put in place to educate a large population of people within the Operations Organisation. The ITIL Service Management Foundation qualification was successfully completed by 70% of all operational staff during 2005 and leadership training was designed, in conjunction with Pink Elephant, to prepare the organization for change.

The outcome

In just three years, the company dramatically transformed the way it manages its IT operations. Global service domain teams, specializing in Telecoms, Desktop and Data Centre services have been established, and the successful introduction of four ITIL-based Service Management processes—Change, Release, Incident and Problem Management—has positioned IT firmly on its roadmap to world-class service delivery.

"We've already achieved significant improvements, including the reduction in the number of failure incidents in the trading business and an increase in network uptime from about 97% to more than 99%," says the Programme Director.

Similar benefits are expected as the broader deployment of ITIL progresses in the coming months. One of the most significant gains to date has been the realization of projected 25% savings in operational costs against a backdrop of a 14% increase in the number of desktops and a 30% increase in application spend. "These new world-class operational processes establish a globally consistent approach to service management across the company, enabling systems changes, application releases and incidents and problems to be managed consistently worldwide," confirmed the Vice President of Global Operations. "Using ITIL to create a service management framework has helped us transform our capabilities."

ALL THE BEST