Roll No.: 4118

M.Sc. (Informatics) – IV Semester - 2019
IT-44 IT Management

Time: 3 Hrs. Max. Marks: 75
Total Pages: 02

(Write your Roll No. on the top immediately on receipt of the paper)

Note: Answer five questions in all. Question no. 6 is compulsory.

Que 1a		Design an IT infrastructure (logical block diagram) of the newly deployed campus network of South Campus. What all services you can run on this network? Discuss all those services.	8
	b	Discuss the impact of Information Technology on strategy and operations of an organisation. What is IT management task? Explain each one of them.	6
Que 2a		Select a product that a computer retailer might sell, such as printers, scanners, hard drives. Why and What sort of details about this product could an online company provide to their clients?	10
	b	What advantage do you see in web ordering to a company?	4
Que 3a		What might be the typical competitive strategy for a company trying to launch a book selling business?	7
	b	What is strategic management maturity model?	7
Que 4a		How Information Technology can help support systems of an organisation? Discuss Operation and Management support systems. Why major courier companies prefer to adopt such support systems?	10
	b	What could be IT 'Failure Mode'. Explain.	4
Que 5		What are the models of management? Define system approach model. Why military and government agencies are most appropriate examples for system model?	14
Q 6		Comment on the following case study and answer the questions.	19

National Knowledge Network (NKN) project is aimed at establishing a strong and robust Indian network which will be capable of providing secure and reliable connectivity. Globally, frontier research and innovation are shifting towards multidisciplinary and collaborative paradigm and require substantial communication and computational power. In India, NKN with its multi-gigabit capability aims to connect all universities, research institutions, libraries, laboratories, healthcare and agricultural institutions across the country to address such paradigm shift. The leading mission oriented agencies in the fields of nuclear, space and defence research are also part of NKN. By facilitating the flow of information and knowledge, the network addresses the critical issue of access and creates a new paradigm of collaboration to enrich the research efforts in the country. The network design is based on a proactive approach that takes into account the future requirements and new possibilities that this infrastructure may unfold, both in terms of usage and perceived benefits. This will bring about a knowledge revolution that will be instrumental in transforming society and promoting inclusive growth.

In order to improve access to knowledge, a need has been long felt in the country to establish a National Knowledge Network (NKN) inter-connecting all knowledge and research institutions in the country through a high bandwidth network. Globally, research & development activities and innovations are increasingly becoming multidisciplinary and collaborative, and require substantial communication/ computational power. For India to emerge as a significant R&D hub, it has to become a part of this wave of collaboration and co-creation. The idea of setting up of a National Knowledge Network was deliberated at the office of Principal Scientific

Advisor to the Government of India and the National Knowledge Commission engagements were held with key stakeholders including experts, potential users, telecom service providers and educational and research institutions. These discussions have yielded a consensus on the optimal approach to be adopted for setting up such a network, to provide a unified high speed network backbone for all the sectors.

- Establishing a high-speed backbone connectivity which will enable knowledge and information sharing amongst NKN connected institutes
- Enabling collaborative research, development and innovation amongst NKN connected institutes
- Facilitating advanced distance education in specialized fields like engineering, science, medicine etc.
- Facilitating an ultra-high speed e-governance backbone
- Facilitating connection between different sectoral networks in the field of research

NKN is designed to provide high availability, Quality of Service, security and reliability. The purpose of NKN goes to the very core of the country's quest for building quality institutions with requisite research facilities and to create a pool of highly trained professionals. The participating institutions at the edge would seamlessly connect to NKN at gigabit speed. NKN shall be a critical information infrastructure for India to evolve as a knowledge society. NKN is a significant step which will enable scientists, researchers and students from across the country to work together for advancing human development in critical and emerging areas.

In March 2010, the Cabinet Committee on Infrastructure (CCI) approved the establishment of the National Knowledge Network (NKN) at an outlay of Rs 5990 Crore, to be implemented by NIC over a period of 10 years. Establishing NKN is a significant step towards ushering in a knowledge revolution in the country with connectivity to 1500+ institutions. NKN is intended to connect all the knowledge and research institutions in the country using high bandwidth / low latency network. NKN has been established keeping the following features in mind:

- Establishing a high-speed backbone connectivity which will enable knowledge and information sharing
- Enabling collaborative research, development and Innovation
- Facilitating advanced distance education in specialized fields such as engineering, science, medicine etc.
- Facilitating an ultra-high speed backbone for e-Governance
- Facilitating integration of different sectoral networks in the field of research, education, health, commerce and governance.
- Link to Global Networks to collaborate with the research communities across the globe.

Answer the following (keeping in mind that you are one of the potential user of NKN)

i. What were the needs and organisational requirements?
ii. What were the business strategies and critical factors?
iii. What were the overall goals expected of 'IT'?
iv. What was the preferred management style?
v. What is the awareness of, and dependence on, IT?
vi. What is success as regards IT?