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E-GOVERNANCE

B.P.A.G.-173

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QUESTION PAPER

June – 2024

(Solved)

ELECTRONIC GOVERNANCE

B.P.A.G.-173

Time: 3 Hours]

[Maximum Marks: 100

Note: *Answer any **five** of the following questions each by selecting at least two questions from each Section. Each question carries equal marks.*

SECTION-A

Q. 1. Discuss the types of applications of Information and Communication Technology.

Ans. Ref.: See Chapter-1, Page No. 2, 'Applications of ICT'.

Q. 2. "Information and Communication Technology (ICT) helps administration to perform its duties towards citizens by efficient and effective delivery of public services." Examine.

Ans. Ref.: See Chapter-4, Page No. 39, 'Role of ICT in Administration'.

Q. 3. Write a note on e-Panchayat Project in Andhra Pradesh.

Ans. Ref.: See Chapter-7, Page No. 70, 'E-Panchayat Project: Andhra Pradesh'.

Q. 4. Write short notes on the following:

(a) **Models of e-Governance.**

Ans. Ref.: See Chapter-2, Page No. 11, 'Models of E-Governance'.

(b) **Village Knowledge Centre.**

Ans. Ref.: See Chapter-6, Page No. 58, 'Village Knowledge Centers'.

SECTION-B

Q. 5. Write a note on e-Governance Projects in urban areas.

Ans. Ref.: See Chapter-11, Page No. 101, 'E-Governance Projects in Urban Areas'.

Q. 6. Discuss the benefits of e-Commerce.

Ans. Ref.: See Chapter-9, Page No. 91, 'E-Commerce: Benefits', Page No. 93, Q. No. 1.

Q. 7. Analyse the gaps in the implementation of Right to Information Act, 2005 and suggest suitable measure for its effective implementation.

Ans. Ref.: See Chapter-11, Page No. 112, 'Right to Information Act 2005: An Appraisal', Page No. 113, 'Suggestions'.

Q. 8. Write short notes on the following:

(a) **E-learning : Concept and significance.**

Ans. Ref.: See Chapter-8, Page No. 81, 'E-learning: Concept and Significance'.

(b) **Citizen Service Delivery Points.**

Ans. Ref.: See Chapter-4, Page No. 40, 'Service Delivery'.

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QUESTION PAPER

December – 2023

(Solved)

ELECTRONIC GOVERNANCE
B.P.A.G.-173

Time: 3 Hours] **[*Maximum Marks: 100***

Note: *Answer any **five** of the following questions each by selecting at least two questions from each Section. Each question carries equal marks.*

SECTION-I

Q. 1. Discuss the different models of e-governance.

Ans. Ref.: See Chapter-2, Page No. 11, 'Models of E-governance'.

Q. 2. Write a note on legal and policy framework for information communication technology and e-governance.

Ans. Ref.: See Chapter-3, Page No. 21, 'Legal and Policy Framework for ICT and E-governance'.

Q. 3. 'Information communication technology applications are significant in rural development and agriculture.' Comment.

Ans. Ref.: See Chapter-6, Page No. 57, 'ICT Applications in Rural Development'.

Q. 4. Write short notes on each of the following:

(a) **Geographic Information System (GIS).**

Ans. Ref.: See Chapter-1, Page No. 3, 'Geographic Information System in Remote Sensing'.

(b) **Types of Information Systems.**

Ans. Ref.: See Chapter-1, Page No. 2, 'Inormation Systems'.

Section-II

Q. 5. Describe the e-governance projects in urban areas.

Ans. Ref.: See Chapter-10, Page No. 103, Q. No. 3.

Q. 6. Examine the concept and significance of e-learning, especially in the area of online delivery of education and training.

Ans. Ref.: See Chapter-8, Page No. 81, 'E-learning: Online Delivery of Education and Training'.

Q. 7. 'Inforamtion communication technology plays a key role in delivering citizen services.' Comment.

Ans. The role of Information and Communication Technology (ICT) in delivering citizen services is crucial in today's digital age. ICT enables governments to provide efficient, transparent, and accessible services to citizens. Here are some key roles of ICT in delivering citizen services:

Benefits:

1. Improved accessibility: Citizens can access services from anywhere, anytime.

2. Enhanced transparency: ICT provides real-time information on service delivery.

3. Increased efficiency: Automation reduces processing time and errors.

4. Cost-effectiveness: Reduced paperwork and physical infrastructure.

5. Personalization: Tailored services through data analytics.

ICT-enabled Citizen Services:

1. E-Governance portals.

2. Online application and tracking systems.

3. Digital payment gateways.

4. Mobile apps for service delivery.

5. Social media for citizen engagement.

6. Cloud-based services for data storage and management.

7. Artificial Intelligence (AI) powered chatbots for citizen support.

8. Blockchain-based secure data management.

Examples:

1. Online passport renewal.

2. Digital health records.

3. E-voting systems.

4. Smart city initiatives (e.g., intelligent transportation).

5. Online tax filing and payment.

6. Digital literacy programs.

E-GOVERNANCE

Information and Communication Technology: An Introduction

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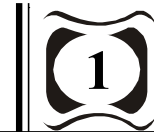
INTRODUCTION

Information is a collection of data having logical meaning. In an organisation information is a group of expertise and database that is used for discharging their responsibilities.

Communication is the act of exchanging information one person or group to another. In other words, communication is the process of exchanging facts via common symbols.

Information and Communication(s) Technology (ICT) covers computers use and computer software to store, protects, process, transmit and retrieve information. It includes product which store, retrieve, exchange or receive information electronically in a digital form.

CHAPTER AT A GLANCE

EMERGENCE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN INDIA

Government of India set-up the Department of Electronics in 1970 and National Informatics Centre (NIC) in 1977. It was an important step towards e-governance in India. Use of computers was limited to very few organizations in the early 1980s and by the late 1980s, a large number of government offices having computer used only for word processing. But development of better software led computers use for managing databases and processing information. Advances in communication technology further led the use of ICT for many applications such as tracking movement of papers and files, monitoring of development programs, employees' pay rolls, generation of reports etc.

Launch of NICNET, national satellite based computer network in 1987 accelerated the process of e-governance. Launch of District Information System of the National Informatics Centre (DISNIC) program let the computerization of all district offices in the country. NICNET was extended to all district headquarters by 1990.

A National Task Force on Information Technology and Software Development was set-up in May 1998. It launched an Operation Knowledge aiming universalizing computer literacy and spreading the use of computer and IT in education in the country. Union Ministry of Information Technology was established in 1999. 12-point minimum agenda for e-governance was setup by Government of India for implementation in all the Union Government Ministries by 2000. The agenda included;

1. Each ministry must provide PCs with software to the Section officer level.
2. Staff must be provided with adequate training.
3. Each ministry should use Office Procedure Automation software developed by NIC.
4. Pay roll accounting and other housekeeping software should be use.
5. Office work such as notices for internal meeting, submission of application for leave, going on tour should be done electronically.
6. Ministries should use the web-enabled Grievance Redressal Software developed by the department of Administrative Reforms and Public Grievances.
7. Each ministry/department should create their website.
8. All Acts, Rules, Circulars must be converted into electronic form alongwith other published material of interest to the public should be made available on the internet, and be accessible from the Information and

Facilitation Counter (one stop shop under National e-Governance Plan-NeGP).

9. The websites of ministries/departments/organizations should specifically contain a section which ensures availability of various forms to be used by citizens/customers electronically printed or completed on the computer itself for submission.

10. Content of the website should be developed in Hindi version also.

11. Each ministry/department would make efforts to develop packages so as to begin electronic delivery of services to the public.

12. Each ministry/department should have an overall IT vision for a five year period.

APPLICATIONS OF ICT

Harry Bourwman *et.al.* (2005) suggested four types of applications of ICTs as:

1. Information Services
2. Communication Services
3. Transaction and Registration Services
4. Integrated Applications

1. Information Services: Information is conveyed or represented by particular arrangement or sequence of things or facts. It is related to data which represents values attributed to parameters. It is also related to knowledge signifying understanding of real things. Databases are at the heart of information services. Example – telephone and personal computer.

Second type of information is databases that are often being used within business system, enterprise and Management Information System (MIS) applications and information provided by third parties. This category of information includes:

(i) Financial information
(ii) Economic information
(iii) Legal information
(iv) Scientific information
(v) Government information
(vi) General news
(vii) Educational information

2. Communication Services : There are various forms of communication services and applications and mainly are synchronous and asynchronous applications.

Synchronous communication: Ex. chatting and video conference

Asynchronous communication: Ex. electronic mail, in which a message is sent, arrives at the electronic mailbox of the recipient but he reads it at a convenient time.

Next level (more formal) communication is workflow management system.

Electronic Data Interchange (EDI) deals directly with transactions such as order and billing processes.

3. Transaction and Registration Services: There are two types of transactions – internal and external transactions. Internal transactions include monitoring of all kinds of process and the collection of all sorts of information in a central electronic database.

External transactions involve collecting information from consumers and other parties within the organization's environment and processing electronic transactions. It is the service which interacts between the organizations and the market and various parties.

4. Integrated Applications: Integrated applications are the applications that integrate information, communication and registration services. They provide information and in many cases conduct transactions such as on websites or banks. Popular applications are intranet, groupware, Computer Supported Collaborative Work (CSCW), and Group Decision Support System (GDSS).

INFORMATION SYSTEMS

An information system is a set of interrelated components that collect, process, store and distribute information to support decision-making and control in an organization. It may help managers and workers analyze problems, visualize complex software programs besides supporting decision-making, coordination and control.

Components of Information Systems

There are three dimensions of Information Systems (IS) – organization, management and IT.

- **Organization:** An organization co-ordinates work through a structured hierarchy and formal standard operating procedures. An organization functions through its hierarchy and through its business process. Business processes include developing a new product, fulfilling an order and hiring a new employee.

- **Management:** Management deals with the many situations and make decisions and action plans to solve organizational problems.

- **Information Technology:** IT helps the managers to cope with change through its tools such as computer hardware, computer software,

data management technology, networking and telecommunications technology, World Wide Web (WWW) etc. An information system provides the information through three activities that organization need to make decisions, control operations, analyze problems and create new products or services. The three activities are:

1. Input: Input involves feeding the data through keyboard, bar coding, scanning etc. The input data is processed by the computer and later it is encoded.

2. Processing: In this activity, processing is done by calculations, searching, sorting, arranging, presenting, converting, transferring, classifying etc.

3. Output: Output is the result of processed data. Information Technology (IT) infrastructure represents electronic computer with the people required to run and manage them.

Types of Information System

Some of the Information systems are:

- **Transaction Processing System:** A transaction involve all the purchases and sales of products and services alongwith daily business transactions or activities required to operate an organization. Quantities and the types of transactions performed vary, depending on the industry and size of the company. Example sales order entry, hotel reservations, payroll, employee recordkeeping etc. Transaction processing system helps managers to monitor the status of internal operations and the firm's relations with its external environment.

- **Management Information System:** Management Information System uses transaction data from a TPS to help middle management optimize planning and decision-making. It retrieves TPS information, aggregates it and generates report to help those at the management level know important details of a situation. MIS use summaries and comparisons to allow senior managers to optimize the decision-making process to achieve better results.

- **Decision Support System:** Decision Support System (DSS) relates to non-routine decision-making. It stores and gathers the information required for management to take the proper actions at the correct time. They also try to

answer questions such as what actions are required to achieve to goal for next month. DSS use information from TPS, MIS as-well-as from external sources like current stock prices or product prices of competitors. It is of two types- First operating on a desktop personal computer and other non-routine decision-making data driven.

- **Business Intelligence System:** Business Intelligence System (BIS) is a contemporary information system for data and software tool. It is helpful for the managers to make more informed decisions, to address strategic issues and long-term trends. It is found at all level of the organization including systems for senior management.

CONCLUSION

ICT plays an important role in accelerating operation of organization processes. By ICT an organization can improve the quality of services, speed, accuracy, selectiveness. The information available from data enables managers to improve policy-making and decision-making process.

ACTIVITY

Illustrate application of GIS in any project in India.

Ans. Rajiv Awas Yojana aims a "Slum Free India". This project aims that every citizen has access to basic civic and social services and shelter. Rajiv Awas Yojana was started in June 2011 with two levels; the preparatory level which was of two years and ended in June 2013. Second level was of implementation level. Central Government has passed the second level for 2013-2022.

In the first step, preparation of slum-free city Plans of Action on entire city and Detailed Project Report on entire slum basis for chosen slums. For the preparation steps and detailed project report, it is necessary to have a socio-economic survey, mapping of slums with technology, socio-economic data, development model etc. These guidelines will assist the states in the process for GIS mapping in city and slum level. Slum survey has to be done and data has to be entered. The main stakeholders are states, Ministry of Housing and Urban Poverty Alleviation and above all slum dwellers.

Geographical Information System in Remote Sensing

Remote sensing allows collections of physical data and together with GIS will help to analyze the data

spatially officering possibilities of generating various options for slum-redevelopment, thereby optimizing the whole planning process. This system offer interpretation of this data with socio-economic data and thus providing an important linkage in the planning process and making it meaningful and effective. Satellite based maps and digital information provide all the required information which is integrated in GIS based urban management system. This helps to analyse information on a single platform and also facilitates updation of the information when needed.

Management Information System (MIS) - Monitoring system for Slum online and Household & Livelihood Survey are web-based tool developed by Ministry to build robust information system for facilities available in slums. User Manual also prepared and made available online through a 'Help option'. Survey of socio-economic for RAY is also conducted in the format given by M/o HUPA. The details should be entered into Slum MIS. Reports can be printed with the help of e-tools given in the system. The Slum MIS serves as a databank for various reports to be used for monitoring and implementation of the programs of the ULB.

In the case, it is not possible to use online system then to provide data entry, an offline data entry module has also been developed within the existing online system. The desired ULB may use the offline services menu and register itself for offline data entry.

GIS enabled MIS data at slum level will be used for tenability analysis and prioritisation of slum at the stage of Slum Free City Planning. Later, at household level it will be used for preparation of DPR and implementation plan and monitoring of progress of implementation.

After finalisation of the slum list, each slum will be marked on the city base map using GPS survey points and satellite image. This information will be saved in a separate thematic layer over the City Base Map. Each slum will be given unique code. Under RAY, Unique Slum Code will be the common reference point for GIS MIS integration at some level. Based on this code, the attribute tables associated with the GIS layers of geo-referenced base map will then be integrated with MIS at slum zone and city level base maps on GIS platform. The entire process of tenability analysis and prioritisation of slums can be done in GIS. Computers can be employed for map making and plotting contour and cross sections. It is therefore recommended to use Total Station for surveying instead of any traditional method of surveying for preparation of DPR.

OTHER IMPORTANT QUESTIONS

Q. 1. Explain the term ICT.

Ans. Information and Communication Technology (ICT) is a broad term comprises of information technology and communication technology. Information is closely related to data, instruction, knowledge, communication, representation and mental stimulus. According to Shannon and Weaver information as the amount of uncertainty that is reduced when a message is received. Communication is the process of information usually via common system of symbols. Information technology includes radio, television, computer and internet, teleconferencing and mobile. All these information technologies are powered many types of communication technologies. These are satellite based communication and terrestrial based communication. Satellite based communication is the communication which take place between sender and receiver through a communication satellite whereas terrestrial based communication is the communication which take place through a network of transmitters spread across a geographical area, a country or a state. This type of communication is used in the transmission of radio and television in India. Communicating information effectively by making use of appropriate technology is called as information and communication technology.

According to the United Nations Development Program, ICTs are basically information handling tools – a varied set of goods, applications and services that are used to produce, store, and process, distribute and exchange information. They include the old ICTs of radio, television and telephone and new ICTs of computers, satellites and wireless technology and the Internet. These different tools are now able to work together and combine to form our networked world, a massive infrastructure of interconnected telephone services, standardized computer hardware, the Internet, radio and television which reaches into every corner of the globe.

Q. 2. Write a note on emergence of information and communication technology in India.

Ans. The first major use of Information Technology (IT) could be said to have started with the introduction of early mainframe computers to respond to the needs of scientific research and the Government's statistical data gathering and processing in which the technology helped to speed up research and forecasting.