

Chapter 10 – IT Applications

e-Governance

It is the application of ICT for delivering government services to the citizens in a convenient, efficient and transparent manner.

Types of interaction in e-Governance:

1. **G2G (Government to Government)** - It is the electronic sharing of data and/or information among Government agencies, Departments or Organizations.
2. **G2C (Government to Citizens)** - It creates an interface between the government and citizens. It increases the availability, accessibility and quality of public services.
3. **G2B (Government to Business)** - Here, e-Governance tools are used to aid the business community to interact with the government. The objective is to cut red tapism, save time, reduce operational costs and create a more transparent business environment.
4. **G2E (Government to Employees)** - Government, being the biggest employer has to interact with its employees on a regular basis.

e-Governance Infrastructure: It consists of State Data Centres, SWAN for connectivity and CSC (Common Service Centres) as service delivery points.

State Data Centres combine services, applications and infrastructure and provide efficient electronic delivery of G2G, G2C and G2B services. This platform is supported by a core connectivity infrastructure such as State Wide Area Network (SWAN) and Common Service Centre (CSC) connectivity that is extended up to the village level. CSCs offer web-enabled e-governance services in rural areas. It helps in utility payments such as electricity, telephone and water bills, in submitting applications and issuing certificates. Akshaya centres are example for CSC in Kerala.

Benefits of e-Governance

- Leads to automation of services.
- Strengthens the democracy.
- More transparency in the functioning.
- Saves unnecessary visits to offices.

Challenges to e-Governance

- Creates digital divide.
- Open to cyber-attacks.
- High cost for the proper implementation and the maintenance of e-Governance services.
- Leads to lack of privacy for civilians.

Examples: www.dhsekerala.gov.in, www.itmission.kerala.gov.in, www.edistrict.kerala.gov.in

e-Business

It is the sharing of business information, maintaining business relationships and conducting business transactions by means of the telecommunication networks.

e-Commerce and e-Business: e-Commerce covers business transaction that involve exchange of money, whereas e-Business includes all aspects of running a business such as marketing, obtaining raw materials or goods, customer education, looking for suppliers etc.

electronic payment system (EPS): A system of financial exchange between buyers and sellers in an online environment. The financial exchange is facilitated by a digital financial instrument such as credit/debit card, electronic cheque, or digital cash.

e-Banking or electronic banking: It is defined as the automated delivery of banking services directly to customers through electronic channel.

Advantages of e-Business

- Overcomes geographical limitations.
- e-Business cuts the cost.
- Eliminates travel time and cost.
- Remains open all the time.

Challenges to e-Business

- Poor knowledge and awareness.
- Inability of online transactions.
- 'Touch and Feel' factors.



Examples: www.irctc.co.in, www.amazon.com, www.licindia.com

e-Learning

It is the use of electronic media and ICT (Information and Communication Technologies) in education.

e-Learning Tools: e-Book Reader, e-chat, Online chat, Videos and Channels (Victers channel)

Advantages of e-Learning

- Offers education to large number of students from distant location.
- Cost for learning is much less.
- Provides facility to do online courses from variety of institutions.
- Time and place is not a constraint for e-Learning.

Challenges to e-Learning

- Lack of face to face contact between students and teachers.
- Limited interaction may discourage the learner.
- Learners with low motivation may fall behind.
- Hands-on-lab work is difficult to simulate.

Examples: www.ignouonline.ac.in, www.nptel.iitm.ac.in

ICT Applications in Health Care

Medical Equipment: Most of the modern medical equipment works with the support of computers. Scanners like CT and MRI, imaging devices, depend on computers to process their data into a readable format.

Patient Records: All patients' records are stored in digital format, known as Electronic Medical Record (EMR).

Web-based support/diagnosis is possible with ICT.

Communication: Teleconferencing has been used to share expertise. Surgeons in one country can help their counterparts in other countries even at the operation table.

ICT Enabled Services

Business Process Outsourcing (BPO), Knowledge Process Outsourcing (KPO), **Call Centre** (A a telephone service facility set up to handle a large number of both incoming and outgoing calls for an organization.), Teleconferencing, Video conferencing etc. are the services enabled by ICT.

Questions from Previous Years' Question Papers

1. "Implementing e-Governance has many advantages". List any four advantages. (2) (Dec 2020, Jul 2019, Jul 2018)
2. Explain how ICT helps in business field. (3) (Dec 2020)
3. Define the term Tele conferencing. (2) (March 2020)
4. Write any three advantages of e-business (3) (March 2020)
5. Summarise the major benefits of e-Learning. (2) (Jul 2019)
6. e-Business has many possibilities in the business world, but it faces some challenges. Write about any two challenges in e-Business. (2) (March 2018)
7. e – learning allows us to overcome many limitations of conventional teaching – learning process.
(a) Name any three e-learning tools for enhancing e – learning process
(b) Write about three advantages of e-learning. (3) (March 2018)
8. Almost all services and business are available online now.
(a) Name the system that facilitate money translation between buyers and sellers in such cases. (1)
(b) Explain the infrastructure of e- Governance. (3) (Jul 2017)
9. Compare the advantages and disadvantages of implementing e-Business. (3) (March 2017)
10. In ICT enabled services BPO stands for _____. (1) (March 2017)
11. Which one of the following is not an e-business website.
(a) www.amazone.com (b) www.dhsekaral.gov.in
(c) www.keralartc.com (d) www.irtc.com (1) (Jul 2016)
12. Define e-Governance. Write any four advantages of e-Governance. (3) (Jul 2016)

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13. Application of ICT for delivering government services to citizens in a convenient and transparent manner is _____ . (1) (March 2016)
14. Explain any three e-learning tools. (3) (March 2016)
15. What is a call centre? What kind of job does a call centre provide? (3) (Jul 2015)
16. The system used for financial exchange between buyers and sellers in an online business is _____ .
- (a) electronic business online (b) electronic payment system
(c) business process outsourcing (d) online payment system (1) (Jul 2015)
17. (a) Expand the term ICT. (1)
(b) Briefly explain the advantages of implementing e-Governance. (3) (March 2015)

