

IT GOVERNANCE

Nov-Dec 2022

Time allowed- 3:30 hours

Total marks- 100

[N.B. - The figures in the margin indicate full marks. Questions must be answered in English. Examiner will take account of the quality of language and of the manner in which the answers are presented. Different parts, if any, of the same question must be answered in one place in order of sequence.]

	Marks
1. a) During the COVID pandemic, the weakness of the healthcare delivery system in Bangladesh is revealed. Mention the action item to improve the healthcare delivery system mentioned in the ICT Policy 2009.	4
b) Define “Hacking” as per ICT Act 2006. Mention the punishment for such an offence.	3
c) Define privacy? How do the internet pose challenges to privacy? Mention technical solution.	3
2. a) Unlike management information systems, decision support systems rely on model bases, as well as databases, as vital system resources. What is a model base? Elaborate with relevant examples.	3
b) The competitive and dynamic nature of today’s global business environment is driving demands by business managers and analysts for information systems that can provide fast answers to complex business queries. Describe how OLAP can contribute in this regard.	4
c) What are the basic analytical operations involved by OLAP? Describe in detail.	6
d) Describe in brief the working principle of the Bitcoin Blockchain, the first widely known and discussed Blockchain. How are the database entries updated here? How are the transactions validated?	5
e) Define the robo-advice sub-segment in FinTech. How does it work?	2
3. a) What is the purpose of the IT governance frameworks? Mention the application areas of the major IT governance frameworks. Which issues are to be considered when reviewing the frameworks? Does one have to choose only one framework? Explain.	4
b) To build and use information systems successfully in organizations, managers need to know about many features. In the behavioral model of an organization, explain in detail how organizational politics affect the implementation of information systems.	4
c) Describe from the perspective of Internet of Things (IoT), how the Internet is changing competition within industries and creating new products and services.	7
4. a) Discuss briefly how Internet vulnerability has increased from widespread use of e-mail, instant messaging (IM), and peer-to-peer (P2P) file-sharing programs.	3
b) It is popularly believed that the security threats to a business originate outside the organization. However, in fact, company insiders pose serious security problems. Explain this issue in detail.	4
c) Enumerate the characteristics which make spyware undesirable to most computer users.	4
d) Answer following:	
i) Define cyber law. Enumerate the issues it encompasses.	2
ii) Why it is said that, “The intersection of technology and the law is often controversial”?	1
iii) How has the growth of Internet affected the emergence of cyber law?	2
e) Data classification is a major part of managing data as an asset. As per the CISA Review Manual, what are the issues that should be defined as control measures for data classification? Which points should be taken into account for data classification? Why is data classification useful?	4

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| 5. | a) | What is the essence of “System Thinking?” Give an example by considering a sales process. | 3 |
| | b) | Briefly explain five steps of the software development life cycle (SDLC) mentioning the product of each step. | 6 |
| | c) | A major activity during the implementation phase of the SDLC is the acquisition of the hardware and software necessary to implement the new system. How do companies evaluate software? Briefly explain. | 6 |
| 6. | a) | Define three tier architecture of an e-commerce site? Give an example by identifying the role of web server, application server and database server | 4 |
| | b) | How to perform an IS audit of an ATM? | 5 |
| | c) | How to perform an IS audit of ecommerce business process? | 6 |
| | d) | There are three types of control. They are preventive, detective and corrective. Describe function of each type with suitable examples. | 5 |

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