IT GOVERNANCE

Nov-Dec 2023

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)	Which action item has been specified in National ICT Policy, 2009 to bolster culture, heritage and religion under the objective "Social Equity"? Which international organization is among the primary actors for this action item?	3
	b)	How has "computer source code" been explained in Information & Communication Technology Act, 2006?	2
	c)	Describe clearly how cookies impinge on individual privacy. Also, elucidate the roles of super cookies or Flash cookies in this scenario.	5
2.	a)	Describe in short the attributes that should be present in high-quality information products from the perspective of form dimension.	3
	b)	Describe market basket analysis (MBA) as a type of data mining for marketing. Explain some of the typical applications of MBA.	6
	c)	Explain how an enterprise information portal (EIP) relates to MIS, DSS, and EIS.	3
	d)	What is meant by "One event, one version" in blockchain system?	3
	e)	"It is not possible to define the term FinTech on the basis of its use in legislation or legal documents."—Elucidate with the necessary justifications.	5
3.	a)	Suppose you want to start a new IT company along with one of your friends. You are cautious-minded and want to be ready for all hazardous situations the company might face. On the other hand, your friend wants to improve the overall performance of the company. Explain how IT governance can help here. Which frameworks can be used in your IT company based on both of your strategies and why?	4
	b)	How can you transform a startup into an organization?	3
	c)	How can you apply Porter's Competitive Forces Model to an organization? What are the problems you may face with Porter's Competitive Forces Model? How can you solve these problems using the Business Value Chain Model?	6
	d)	What information system strategies can you apply to outperform your competitive organizations?	2
4.	a)	An IT organization has web services used by millions of users. Which cyber attacks should the organization be aware of for their web services, and why? Elaborate.	3
	b)	What problems you may face if you use a pirated software?	3
	c)	How can DDoS attacks be executed on a certain organization that provides web services?	3
	d)	What steps should an organization take to prevent a massive cyber attack like "Stuxnet"?	3
	e)	Describe the technologies and tools that an organization should use for safeguarding its information resources and the challenges that may result from organizations using information technology in its business model.	8
5.	a)	Prototyping is an iterative and interactive process for system development. Draw a diagram clearly showing the steps involved in prototyping.	4
	b)	List typical tangible and intangible benefits of an Information System (IS) with examples.	3
	c)	What are the ten major hardware evaluation factors? For each factor, write down the specific question(s) that must be answered.	4
	d)	Discuss four basic categories of system maintenance.	4
6.	a)	What is meant by "audit universe"? Why is it important in the context of auditing? What role do risk factors play in the context of audit universe? Explain.	3
	b)	What is the purpose of the ITAF (Information Technology Assurance Framework)? What aspects of IS audit and assurance does it address? What are the focuses of ITAF?	3
	c)	In order to attain the IS control objectives of ensuring integrity of sensitive and critical application system environments in the context of auditing, which issues are to be considered?	4
	d)	What is the primary purpose of forensic auditing? Which measures are essential to ensure the admissibility and integrity of evidence in legal proceedings? Explain the role of information security in this context.	5
	e)	Explain the concept of materiality in audit findings. Why is it essential to judge the potential impact of findings? Discuss the relevant issues from the perspective of factors that influence the determination of materiality.	5

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