

## IT APPLICATION

Time allowed - 3 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 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) “Bhalo Babosa Uddeshsho” has realized the strategic value of information technology; and consequently the role of IT in this organization is evolving. The organization now understands that developing an IT strategy is a very important and significant issue, and has employed you as the consultant for this task. Discuss in detail the typical structure of an IT strategy. 6
- (b) Continuing with the scenario in Question (a), you have finished developing the IT strategy. At this juncture, the alignment of business strategy and IT strategy is a critical issue for the organization. Once alignment has been carried out, you want to measure the success of strategy alignment. Describe in detail the steps involved in the Best Known Method (BKM) used for measuring the aforementioned success. 9
2. (a) A software company recently developed a social networking website and coincidentally Facebook went down just one week after the final launch of the new site. So there occurs a sudden overload of users using this site and due to lack of capacity of handling the amount of requests, their server went down.  
What are the steps of planning for recovery from this disastrous condition of the company? What are the advantages that the company could have if they had a proper disaster recovery planning? 10
- (b) Recently a renowned company faced massive debacle incurring a loss of Taka 200 crores within a very short period after the resignation of the company’s system admin. The company faced server security crisis afterwards which led to severe loss. Many employees lost their jobs without being notified before hand, and therefore they went furious provoking protests and riots in the factory premises. In the process many resources were destroyed. The board of directors are indirectly giving hints that the former IT Chief Engineer might have some connection with the disastrous situation since he had access to all the customer information and network management of the company.  
Discuss about some more specific risks’ associated with the disaster that occurred for the above mentioned company. 5
3. (a) The “Nagorik Seba Bank” truly understands that information must be kept secured in order to make it useful for all. They have got you as their IT Administrator. In addition to keeping their information secured, they want to learn from you as well. In this connection, define information security and describe in detail the three areas information security is concerned with. 6
- (b) In light of the same scenario in Question (a), explain how encryption and firewalls help us as tools for information security. 5
- (c) The same bank in Question (a) wants to have a truly structured information system in the organization. And again, they are seeking your expert services. Enumerate the six major categories of information system according to their applications. 9
4. “The Kawranbazar Vegetable Sellers’ Association” has undertaken the development of a large information system project. Your contribution, as a project leader, will be both in the areas of management and IT.  
(a) What are the five major variables you will need to identify? Provide short descriptions of these variables as well. 2

- (b) Enumerate the components of the project you will need to identify in order to plan and schedule the project effectively. 3
- (c) What major activities need to be performed during the project planning stage? 2
- (d) What is the importance of planning for a system development project? 3
5. “Jonogon Sonchoy Ebong Rin Sanstha” realized that performing audits without using information technology is hardly an option. Indeed, external and internal auditors are increasingly using computer assisted auditing techniques (CAATs) to perform a variety of audit procedures. The management of this organization seeks your assistance in understanding CAAT.
- (a) Enumerate the uses of CAAT. 2
- (b) During planning, you cannot simply decide to switch to CAAT one fine morning. You should consider an appropriate combination of manual techniques and CAATs. In determining whether to use CAATs, what are the factors that need to be considered? 2
- (c) What steps need to be undertaken by the information system auditors in preparing for the application of the selected CAAT? 5
- (d) How can an auditor measure the effectiveness and efficiency of auditing procedures improved by using CAAT? 6
6. In any information system, security measures are essential to safeguard and minimize security risks. Suppose you are an entrepreneur who started a software company. You want to ensure essential security measures for the company to make it secure.
- What do you understand by security information policy? Briefly explain the five sections of an IS security policy. 10
7. (a) What are the policies that an organization defines in order to control the unwanted spam messages. Briefly explain the concept “device identification and authentication” from the perspective of security concern. 5
- (b) What policies you will maintain for auditable events in your company? Briefly write about the controls for purpose of audit records. 5
- (c) In business, general control constitutes of access, physical security, data recovery. The degree of control employed is a matter of good business judgement. Mention the categories of controls over personal system and briefly describe about the general ones. 5