U.S.T.H.B /C.E.I.L 2022/2023

Computer Science Faculty Master 2

**\* English Exam Keys**\*

***I Reading comprehension***

**Read the text and choose the correct option. (6pts)**

As increasing dependence on information systems develops, the need for such systems to be reliable and secure also becomes more essential. As growing numbers of ordinary citizens use computer networks for banking, shopping, etc., network security is potentially a massive problem. Over the last few years the need for computer and information system security has become increasingly evident, as web sites are being defaced with greater frequency, more and more denial-of-service attacks are being reported, credit card information is being stolen, there is increased sophistication of hacking tools that are openly available to the public on the Internet, and there is increasing damage being caused by viruses and worms to critical information system resources.

At the organizational level, institutional mechanisms have to be designed in order to review policies, practices, measures, and procedures to review e-security regularly and assess whether these are appropriate to their environment. It would be helpful if organizations share information about threats and vulnerabilities, and implement procedures for rapid and effective cooperation to prevent, detect and respond to security incidents. As new threat and vulnerabilities are continuously discovered there is a strong need for cooperation among organizations and, if necessary, we could also consider cross-border information sharing. We need to understand threats and dangers that could be vulnerable to and the steps that need to be taken to mitigate these vulnerabilities. We need to understand success control systems and methodology, telecommunication and network security, and security management practice. We should be well versed in the area of application and systems development security, cryptography, operations security and physical security.

The banking sector is poised for more challenges in the near future. Customers of banks can now look forward to a large array of new offerings by banks. From an era of mere competition, banks are now cooperation among themselves so that the synergistic benefits are share among all the players. This would result in the formation of shared payment networks (a few shared ATM networks have already been commissioned by banks), offering payment services beyond the existing time zones. The Reserve Bank is also facilitating new projects such as the Multi Application Smart Card project which, when implemented, would facilitate transfer of funds using electronic means and in a safe and secure manner across the length and breadth of the country, with reduced dependence on paper currency. The opportunities of e-banking or e-power in general need to be harnessed so that banking is available to all customers in such a manner that they would feel most convenient, and if required, without having to visit a branch of a bank. All these will have to be accompanied with a high level of comfort, which again boils down to the issue of e-security.

One of the biggest advantages accruing to banks in the future would be the benefits that arise from the introduction of Real Time Gross Settlement (RTGS). Funds management by treasuries of banks would be helped greatly by RTGS. With almost 70 banks having joined the RTGS system, more large value funds transfers are taking place through this system. The implementation of Core Banking solutions by banks is closely related to RTGS too. Core Banking will make anywhere banking a reality for customers of each bank, while RTGS bridges the need for inter-bank funds movement. Thus, the days of depositing a cheque for collection and a long wait for its realization would soon be a thing of the past for those customers who would opt for electronic movement of funds, using the RTGS system, where the settlement would be on an almost instantaneous basis. Core Banking is already in vogue in many private sector and foreign banks; while its implementation is at different stages amongst the public sector banks.

IT would also facilitate better and more scientific decision making within banks. Information systems now provide decision makers in banks with a great deal of information which, along with historical data and trend analysis, help in the building up of efficient Management Information Systems, This, in turn, would help in better Asset Liability Management (ALM) which, in today’s world of hairline margins, is a key requirement for the success of banks in their operational activities. Another benefit which e-banking could provide for, relates to Customer Relationship Management (CRM). CRM helps in stratification of customers and evaluating customer need on a holistic basis which could be paving the way for competitive edge for banks and complete customer care for customers of banks.

**Q1. The content of the passage mainly emphasizes**

(a) the threat of competition among banks providing tele-banking services

**(b) the scientific advancements that have facilitated quicker and scientific banking procedures**

(c) threats to on-line banking and remedies to guard against them

(d) e-banking and its impact on global economy

(e) None of these

(a) can be eliminated as the passage never discussed about competition between banks. (c) also can be eliminated as it is too broad in nature(Though the passage suggested to discuss about the threats, it never discussed about remedies against threats to online banking).(d) is also eliminated as it speaks of global economy which is not discussed in the passage. The passage whole in all discusses about banking and its advancements. Hence, (b) is correct.  
  
**Q2. What, according to the passage, is the prerequisite to lessen the threats of hacking?**

(a) Effective measures to combat vulnerability

(b) Environment-friendly gadgets to remedy damages

(c) Detection and timely prevention of the threat

**(d) Effective mechanism to evaluate the e-security**

(e) None of these

The 2nd paragraph 1st line clearly states that institutional mechanism has to be developed in-order to review E-Security. (d) captures this idea at the best.

**Q3. In what way does IT catalyse better decision-making?**

(A) By providing updated data and trend analysis.

(B) By providing increasing opportunities of personal contacts.

(C) By ensuring better asset-liability management.

**(a) A only** (b) B only (c) C only (d) A and B only (e) All the three

Refer to the 1st line of last paragraph. It clearly states that IT is capable of providing historical data and trend analysis which in turn helps in building up efficient Management Information Systems. 2&3 are out of context. Hence, (a) only 1 is correct.  
  
**Q4. What is the advantage of RTGS to the customers?**

(a) Anywhere banking

(b) Instant realization of cheque

(c) Easy withdrawal of cash

(d) Hassle-free depositing of cash-loads

**(e) Availability of transaction facilities at any other bank**

The fourth para clearly mentions the benefits of RTGS. It also states that RTGS helps in transacting from other banks. Hence (e) is correct.  
  
**Q5. What, according to the author, should be the ultimate goal(s) of e-banking?**

(A) Customers’ convenience.

(B) Avoidance of heavy footfall of customers in bank branches.

(C) Protection of customers’ interests.

(a) A and B only (b) B and C only **(c) A and C only** (d) All the three (e) None of these

The main point of the last paragraph is that e-banking enables customers to hassle free banking and to ensure that public interests are met. Though, option 2 is correct in general terms,we are supposed to answer as per the context of the passage. The passage never suggests that footfalls can be avoided by e-banking. Hence,option (c) is correct.  
  
**Q6. Why is it obligatory that a system should be perfectly dependable?**

(a) To justify escalating dependence on system

**(b) To ensure security for the system**

(c) To disallow any pilferage whatsoever

(d) To ascertain proper logistic support

(e) None of these

The starting line of the passage states that "As increasing dependence on information system develops, there is a necessity for such a system to be secure", which means that if we are supposed to depend on a system- it should be reliable and secure. Hence, (b) is correct.  
 **Q7. Which of the following is/are recommended by the author to ensure security of banking transactions?**

(A) Continuous re-examination of policies and procedures.

(B) Ensuring appropriateness of the security measures.

(C) Cooperation among various users to identify and prevent threat.

(a) A and B only (b) B and C only **(c) A and C only** (d) A and B only (e) None of these

Refer to 1st and 2nd lines of 2nd paragraph and 2nd line of 3rd paragraph. Those state that E-banking should undergo necessary changes continually and mutual cooperation is required to mitigate risks of security.

**Q8. Which of the following statements definitely False in the context of the passage?**

(A) Transfer of funds to any part of the country through electronic media is under active consideration.

(B) Cooperation among various competing banks is helpful to all of them in sharing legitimate benefits.

(C) Assessment of customer needs and their clustering in homogeneous groups provides competitive edge to banks.

(a) Only A (b) Only B and C (c) Only A and C (d) All the three **(e) None of these**

Refer to 3rd paragraph 4th line. It mentions that using multi application smart card, we can transfer funds to length and breadth of the country. Hence,1 is true. Refer to 2nd paragraph 2nd line, it states that sharing of information between two banks is required in-order to mitigate the risks of threat. Hence, 2 is true. But,we cannot find anything in the passage suggesting that customers are grouped into clusters. Hence, 3 is false. So (e), none of the options is correct.

**Q9. Computer-savvy citizens are also shared to transact on-line due to the following except**

(a) smuggling of vital information regarding credit cards

(b) availability of hacking tools on the internet

(c) damage by viruses to critical information

**(d) sophisticated, well-guarded on-line transaction devices**

(e) denial-of-service attacks that put valid customers to inconvenience

The first paragraph of the passage has a mention of options a,b,c,e. But nowhere, the passage mentioned about on-line transaction devices. Hence, (d) is correct.  
  
**Q10 Find in the text words having an opposite meaning to the following word.**

Invincible ≠ ….. vulnerable…...

**Q11 Find in the text words having a similar meaning to the following words.**

ready =……poised……   alleviate = ……mitigate……

***II Language structure***

**1 Replace the underlined phrases with a compound word. (3pts)**

1. Hackers can download software that is used to crack passwords for free on the Internet.
2. With biometrics, PINs that have 4 digits, usernames, or other letters or symbols are no longer needed.
3. Personal information, shared by an individual on social networking sites, can be inappropriately used by others and may lead to incidents that threaten life.
4. A malicious threat that comes from people within the organization.
5. During an online meeting, the host can use the function that allows to share the screen.
6. Users can download services offering social media functionality to their devices that are made for portability.

**1**…password-cracking/cracker…… **2**…Four-digit….

**3**…life-threatening…… **4**…insider threat………

**5**…screen-sharing/ share…… **6**…mobile/portable devices…….

**2** **Use the following sentences to form parallel increase constructions. (3pts)**

1. As/because the bandwidth is low, the computer is slow in downloading information from the Internet.

The lower the bandwidth, the slower the computer in downloading information from the internet**.**

1. As/because you learn a great deal from educational materials, you need little help from others.

The more you learn from educational materials, the less help you need from others.

**3** As/because the computer receives a lot of data, it can be very accurate in its predictions.

The more data the computer receives, the more accurate it can be in its predictions.

**4** As/ because the data an algorithm sees is much labeled, it becomes good at the task it performs.

The more labeled the data an algorithm sees, the better it becomes at the task it performs.

**5** As/ because I try to learn vocabulary very hard, I get a lot confused and I am unlikely to remember the words.

The harder I try to learn vocabulary, the more confused I get and the more unlikely / the less likely I am to remember the words.

**6** As/because artificial intelligence becomes advanced, it takes over a lot of human jobs.

The more advanced artificial intelligence becomes, the more human jobs it takes over.

1. **Complete the following extract with words from the box. (3pts)**

currently suspicious enhances perform improving reasoning

mainstream consuming boost maximize neutralize reviewed

**How can AI help to improve your cybersecurity?**

AI is going to have a crucial role to play in **1**........improving........... cybersecurity for businesses large and small. AI is already being used by many businesses around the world to **2**.....boost/maximize....their cybersecurity effort, however, we can expect the introduction of AI and ML to become more **3**....mainstream...in both commercial and personal cybersecurity software solutions.

AI is already helping businesses to identify and **4**....neutralize........ cybersecurity threats, helping businesses to keep on top of an ever-evolving cybersecurity space.

AI learns by **5**.....consuming......billions of pieces of data from both structured and unstructured sources. That data is processed quickly using machine learning and deep learning techniques and AI then **6**.......enhances......its knowledge, helping the software to understand cybersecurity threats and risks.

Because AI has the power to analyse billions of data files, the learning curve is steep. AI software can use the insights gathered across billions of data pieces and use 7..reasoning..... to identify any relationships between threats such as malicious files, **8**.....suspicious.......IP addresses and unusual activity on a network.

The data can be analysed in minutes and the results can be then **9**.....reviewed......and actioned by cybersecurity professionals who can make an informed decision quickly.

It is this relationship between the AI software and the cybersecurity professionals that are really helping to **10**....maximize/boost.......the impact of AI in cybersecurity. Whilst there may come a time when AI can perform the work of a cybersecurity profesional, that seems a long way off. Cybersecurity analysts are**11**......currently.....able to make more informed decisions much faster because of AI, helping to **12**...perform..... better in their roles.