

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)

Department of Computer Science and Engineering (CSE)

MID SEMESTER EXAMINATION

WINTER SEMESTER, 2018-2019

DURATION: 1 Hour 30 Minutes

FULL MARKS: 75

CSE 4531: E-Commerce and Internet Security

Programmable calculators are not allowed. Do not write anything on the question paper.

There are **4 (four)** questions. Answer any **3 (three)** of them.

Figures in the right margin indicate marks.

1. Mr. Abid is an entrepreneur and a third-year student of IUT. He noticed that there are many people who want to buy and sell different items in IUT but they do not have a platform. So he created a website called "**iutbuynsell.com**" where IUTians can auction or sell items, browse and buy etc. Mr. Abid wants to make this business profitable so he sketched up a business model. After 6 months of operating, seeing iutbuynsell become popular, Mr. Ahlan, a student of fourth year decided to make a similar website called "**wantsomething.com**".
 - a) What are the unique features of iutbuynsell.com? Describe using examples. 8
 - b) Which B2C business model would Mr. Abid take and why? Explain. 5
 - c) Describe "Value Proposition", "Revenue Model" and "Competitive Advantage" of iutbuynsell.com. 4×3

2.
 - a) Iutbuynsell.com has some unpopular or obscure items that do not sell as much as popular items. Which E-Marketing strategy would Mr. Abid use to generate substantial revenue and why would this marketing strategy generate revenue? 6
 - b) Mr. Ahlan wants to market "wantsomething.com" using search engine marketing but it has created some issues. What are they? Describe in brief. 10
 - c) What is the difference between data warehouse and data mining? 3
 - d) Write short notes on the following: 3×2
 - i. Lead Generation Marketing
 - ii. Beacons

3. Mr. Elon Flusk is an unskilled hacker. He does not have that much experience and relies on tools developed by Mr. Mark Iceberg, a skilled hacker who has done some malicious and destructive activities. Flusk mostly runs different scripts and tools to compromise a system. Flusk is trying to break into IUT's IUSERS system to increase his internet usage limit.
 - a) Which hacker classes do Elon Flusk and Mark Iceberg belong to? Which types of penetration testing are they most likely to do? 2+2
 - b) Which phases Mr. Flusk has to go through in order to hack IUSERS? Describe using IUSERS scenario. 9
 - c) Write short notes on the following: 2×3
 - i. Hacktivist
 - ii. Non-Repudiation
 - iii. Doxing
 - d) Encrypt the sentence "**manchester city best club**" with Rail Fence cipher of depth 3. Use iteration method on the result. Did it make it more secure? If yes, then why? 6

4. a) You have been given the key as: **HILURIOUS**. Draw the Play-Fair table. 3
- b) Encrypt the following text using the play-fair table in 4(a) 9
 "CSE SXTEEN VERY GOOD"
- c) Using the Vigenère Cipher, decrypt the word **"PBVWETLXOZR"** using the key **"leg"**. 6
- d) What are the conditions for Kasiskis method to work? Encrypt the word **"multivariate"** using 7
 the same key in 4(c) with Vigenère autokey system. Write down the Key and Cipher text.