ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
Department of Computer Science and Engineering (CSE)

MID SEMESTER EXAMINATION   WINTER SEMESTER, 2017-2018

DURATION: 1 Hour 30 Minutes   FULL MARKS: 75

CSE 6273: Cloud Computing

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.

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1. a) How did the concept of cloud computing evolve from traditional computing concept? What services does cloud computing offer? — 6

    b) Enumerate three security threats to IaaS and SaaS each. Describe the ways to block these security threats of cloud. — 9

    c) How does cloud computing saves IT expenditures for a small or medium size business organization? — 10

2. a) Briefly describe the architecture of Remote Procedure Call (RPC). Why did RPC evolved to XML-RPC and then to Web Services? — 10+5

    b) What is a mobile cloud? How is the concept of mobile cloud redefined by today's research? — 5

    c) Why is there always a business model with a cloud service? How do SaaS providers typically generate revenue in their businesses? — 5

3. a) What is map-reduce? Elaborate the concept by citing the example of word count. — 10

    b) Briefly describe the characteristics of Hadoop Files System (HDFS). — 10

    c) What are WORM file systems? Which types of applications provide the scope or constraint to use WORM file system? — 5

4. a) What services can you provide with education cloud? — 10

    b) How does Facebook scale perfectly to accommodate millions of users? — 10

    c) What do you understand by horizontal scaling and vertical scaling? — 5