

UNIVERSITY OF COLOMBO

FACULTY OF EDUCATION

POSTGRADUATE DIPLOMA IN EDUCATION – (TEACHING OF ENGLISH AS
A SECOND LANGUAGE) - SECOND SEMESTER EXAMINATION – 2017/2018

CU 509 – Information and Communication Technology

03 hours

Answer five questions including first question.

1.

PART A

- i. Explain any four components of a database.
- ii. Define and explain primary key and foreign key with a suitable diagram.
- iii. What are the three types of relationships available and explain those using an example.
- iv. Assume you are asked to create a database for a school sports meet. Identify three tables with at least four fields and four records in each table. State the data type and field size/format of each field. Draw a relationship diagram and highlight primary key, foreign key and relationship type of each.

(4x4 marks= 16 marks)

PART B

- v. Assume you are asked to create a spreadsheet for school year end grading. Create a mark sheet of five students with at least four functions with the syntax.
- vi. Explain these parts of an e mail message.
To:, CC:, BCC:, Attachment:
- vii. Define and distinguish between data and information.
- viii. Identify the relationship between byte, kilobyte, megabyte, gigabyte and terabyte.
- ix. What is a web browser? Give four examples of web browsers.
- x. Explain briefly simplex, half duplex and full duplex with examples.

(6x4 marks= 24 marks)

2. i. Briefly explain input-process-output cycle. (03 marks)
- ii. What are the main functions of output unit? Explain citing **three** examples of output devices. (03 marks)
- iii. Identify the hardware components of a computer system in a computer lab and classify those according to input devices, output devices and storage devices. (04 marks)
- iv. Briefly explain **three** types of new technologies which can be used in classroom in the teaching learning process. (05 marks)
3. i. Explain guided media and unguided media with examples and compare their advantages and disadvantages. (05 marks)
- ii. What are the main network topologies and compare their advantages and disadvantages (05 marks)
- iii. Develop a plan describing how you would build a network infrastructure in your school. Discuss the communication media, devices and services you would use. (05 marks)
4. i. What are the technological advancement both in hardware and software, from the first generation electronic computers to the era of personal computers? Explain (05 marks)
- ii. Explain **three** examples in which artificial intelligence is being used today (05 marks)
- iii. As a language teacher explain how you can use ICT, in professional development and in dealing with problems encountered in the classroom. (05 marks)

5. i. Explain **three** components of a smart classroom. (3 marks)

ii. What is internet? Explain **three** primary functions of the internet other than email. (3 marks)

iii. Explain **three** key advantages and disadvantages of electronic mail in teaching learning process (3 marks)

iv. "Social media can be used as a learning tool". Discuss on this statement. (6 marks)

6. i. What are the **five** basic operations performed by the computer (5 marks)

ii. What is software? Explain **five** application software that can be used in teaching learning process. (5 marks)

iii. Commercial and non-commercial software types are available in the market today. Explain with reasons which software type you suggest for the school system. (5 marks)

7. Explain three of the followings

- a. Computer ethics
- b. Plagiarism
- c. E-government
- d. Computer viruses
- e. Software and network privacy
- f. Health issues related to using computers

(3x5 marks= 15 marks)