



EASTERN UNIVERSITY, SRILANKA
DEPARTMENT OF MATHEMATICS
FIRST EXAMINATION IN SCIENCE –2016/2017
FIRST SEMESTER (Aug. / Sept. 2018)
CC 101 – FUNDAMENTALS OF COMPUTER SYSTEMS

Answer all questions

Time allowed: 01 hour

Q1.

- A. Define the following terms:
- a. Data;
 - b. Information;
 - c. Information Communication Technology (ICT); (15 Marks)
- B. What is computer? Draw the block diagram of a computer. (25 Marks)
- C. Name the main components of a Central Processing Unit (CPU) and briefly describe their functions. (15 Marks)
- D. List the characteristics of a computer. (10 Marks)
- E. What are the various devices used to store data in a computer? Give a classification of storage devices. (20 Marks)
- F. Define the term **Software**. The computer software is classified into two broad categories, explain each with suitable examples. (15 Marks)

Q2.

- A. Secondary memory can be classified into three categories. Explain each with suitable examples. (15 Marks)
- B. Explain three categories of the wired transmission media. (15 Marks)
- C. List the functions of an operating system. (10 Marks)

D. Convert the following into Binary (Show appropriate steps):

- a. $(689)_{10}$;
- b. $(125.25)_{10}$;
- c. $(0.1010)_{10}$;
- d. $(10.11)_{10}$.

(20 Ma

E. Convert the following into Octal (Show appropriate steps):

- a. $(4587)_{10}$;
- b. $(222.245)_{10}$;
- c. $(ABCD0)_{16}$;
- d. $(999)_{16}$.

(20 Ma

F. Convert the following into Hexadecimal (Show appropriate steps):

- a. $(777)_{10}$;
- b. $(171)_8$;
- c. $(001110101011101111)_2$;
- d. $(10011)_8$.

(20 Ma