

Master Copy
9/6/2016

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (BIOMEDICAL INFORMATICS)
END OF SEMESTER I EXAMINATION (Repeat) – JUNE 2016

Date: 9th June 2016

Time: 1.00 p.m. – 2.00 p.m.

Answer all questions.

Answer each part in a separate book.

Question 1

Part A

1.1

1.1.1 Convert the following decimal numbers to binary numbers. (20 marks)

(a) 2365

(b) 3.75

1.1.2 Convert the following binary numbers to decimal numbers. (20 marks)

(a) 1010

(b) 101000

1.1.3 Write a pseudo code to input five names and arrange them in alphabetical order. (60 marks)

Part B

1.2

1.2.1 Briefly describe star topology. (40 marks)

1.2.2 Compare the advantages and disadvantages of star topology with other network topologies. (60 marks)

Part C

1.3

1.3.1 List the attributes of a good software. (30 marks)

1.3.2 Suggest the most appropriate generic software process model for managing the development of a university accounting system to replace an existing manual system giving reasons. (70 marks)

Question 2

Part D

2.1

2.1.1 Write short notes on basic concepts of Object Oriented Programming.
(50 marks)

2.1.2 Draw a flow chart to calculate the sum and the average of five numbers.
(50 marks)

Part E

2.2

2.2.1 Write short notes on two (02) guided transmission media.
(50marks)

2.2.2 Write short notes on two (02) unguided transmission media.
(50 marks)

Part F

2.3

2.3.1 Write short notes on custom software product development.
(40marks)

2.3.2 Describe the contents of a Software Requirement Specification (SRS).
(60 marks)