



FIJI NATIONAL UNIVERSITY
College of Engineering, Science & Technology

SCHOOL OF ELECTRICAL & ELECTRONIC ENGINEERING

CERTIFICATE IV IN BIOMEDICAL TECHNOLOGY

EEE493 – COMPUTER SYSTEMS

FINAL EXAMINATION – TRIMESTER 2 - 2016.

TIME: TBA

Date: TBA

DURATION: 3 HOURS

INSTRUCTIONS TO STUDENTS:

1. You are allowed 10 minutes **EXTRA** as reading time during which you are **NOT** to write.
 2. Begin each answer on a fresh page and use both sides of the sheet.
 3. Write your candidate number at the top of each attached sheet.
 4. Insert all written foolscap, graph paper, drawing paper, etc. in their correct sequence and secure well.
 5. For all sheets of paper on which rough/draft work has been done, cross it through and attach to your answer scripts.
 6. Show all workings where necessary
 7. Diagrams and graphs can be drawn in pencil.
 8. Non- programmable calculators are allowed.
 9. **ATTEMPT ALL QUESTIONS**
 10. **Check your work before you leave the room!!**
-

Section A: (20 marks)

Number Systems

Question 1

- a) Convert decimal to binary; (4 marks)
 - (i) 19
 - (ii) 6
- b) Convert binary to decimal; (4 marks)
 - (i) 101
 - (ii) 0010
- c) Convert hexadecimal to decimal; (4 marks)
 - (i) BC4
 - (ii) EEA

Question 2

- a) Convert decimal to hexadecimal; (4 marks)
 - (i) 1317
 - (ii) 68
- b) Convert hexadecimal to binary; (4 marks)
 - (i) AC4
 - (ii) FF9

Section B (20 marks)

Question 1

- a) Name the 5 major components of a computer? (5 marks)
- b) Briefly explain what an input device is? (2 marks)
- c) Briefly explain what an output device is? (2 marks)
- d) Name which device is the termed as "the brain of the computer" (1 mark)

Question 2

- a) What are 3 main parts of a CPU? (3 marks)
- b) What is the function of the CPU? (2 marks)
- c) What is a Register? (2 marks)
- d) Name 3 types of Registers? (3 marks)

Section C

(20 marks)

Question 1

- a) At what point is the RAM needed by the CPU? (3 marks)
- b) Name 3 characteristics of Secondary Storage memory (3 marks)
- c) What is the application software? (2 marks)
- d) What is the operating software? (2 marks)

Question 2

- a) Name the 3 well-known operating system? (3 marks)
- b) What type of cable is used to connect 2 identical devices (2 marks)
- c) What type of cable is used to connect 2 non-identical devices (2 marks)
- d) Which layer of the OSI model deals with IP addresses? (1 marks)
- e) What does OSI stand for? (2 marks)

Section D

(20 marks)

Question 1

- a) What is the function of the Session layer of the OSI model? (2 marks)
- b) Give 3 benefits of the OSI model? (3 marks)
- c) Give 3 functions of the Application layer? (3 marks)
- d) Which layer of the OSI model deals with cables? (2 marks)

Question 2

- a) What is a computer peripheral device? (2 marks)
- b) Which card is the most important in a computer? (1 mark)
- c) Name 3 common expansion cards? (3 marks)
- d) What is the PCI slot used for? (2 marks)
- e) What is the ISA slot used for? (2 marks)

Section E

(20 marks)

Question 1

- a) What is a computer protocol? **(2 marks)**
- b) Name 3 common computer protocols? **(3 marks)**
- c) Name the 5 parts of the given URL below; **(5 marks)**

<http://www.xyz.com:80/ad/index.html#specials>

Question 2

- a) What is a computer bus? **(2 marks)**
- b) Name the 3 types of computer buses? **(3 marks)**
- c) Draw the Bus flow diagram of the I/O connecting to Processor and Memory? **(5 marks)**

-----THE END-----

EQP RECEIPT CHECKLIST FORM

Particulars	Details/Comments (To be filled by Unit Lecturer)	Tick if present on EQP (To be filled by exams staff)
Cover Page		
Fiji National University with Logo	/	
College	/	
School	/	
Program	/	
Unit Code	/	
Unit Name	/	
Examination Period	/	
Duration of Examination	/	
Instructions	/	
Total Number of Pages	/	
Other Pages		
Footer		
Page Number	/	
Unit Code	/	
Examination Period	/	
Last Page		
The End	/	
Overall		
Proper Print	/	
Examination Requirements (FNU/E-1)	/	
Moderator's Report (FNU/E-3)	/	
ERRS (Class List)	/	
Unit Coordinator/Principal Lecturer's Name	KALIVATI WDE	

DISPATCHED BY (SCHOOL REP)

NAME: Wesley M

SIGN: [Signature]

DATE: 22/02/10

RECEIVED BY (EXAMS REP)

NAME: _____

SIGN: _____

DATE: _____