

Angka Giliran:..... No. Tempat Duduk:.....

UNIVERSITI SAINS MALAYSIA

Peperiksaan Semester Kedua
Sidang 1986/87

LKI 260 - Bahasa Inggeris Teknikal II

Tarikh: 2 April 1987

Masa: 9.00 pagi - 12.00 t/hari
(3 jam)

Instructions:

1. Before you start, please note that this paper comprises 20 printed pages and an Appendix of 4 printed pages.
2. Answer ALL questions.
3. Write ALL answers IN THIS BOOKLET.

UNTUK KEGUNAAN PEMERIKSA SAHAJA		
SOALAN	MARKAH PENUH	MARKAH DIPEROLEHI
I	40	
II	33	
III	27	
JUMLAH	100	

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QUESTION I

(40 marks)

This question has 6 parts: (A, B, C, D, E, F). Read TEXT A in the Appendix and then answer the questions that follow.

A. Indicate where the following ideas are stated in the text. Give the line references.

1. Microcomputers were developed after the minicomputers.

Lines _____

2. Microcomputers can do the work done by minicomputers.

Lines _____

3. Microcomputers have a smaller memory capacity than minicomputers.

Lines _____

4. Microcomputers are becoming increasingly cheaper.

Lines _____

5. Microcomputers are now used in sophisticated toys and games.

Lines _____

6. By the end of this century microcomputers will be cheaper, better and applied more extensively.

Lines _____

(6 marks)

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B. Identify what the main idea is in the text by ticking [√] the appropriate box.

- 1. Microcomputers are cheap, reliable and efficient.
- 2. Microcomputers are far superior to minicomputers.
- 3. There is no limit to what microcomputers can do.
- 4. Microcomputers will be everywhere in the future.

(1 mark)

C. Refer to text A and state what the words below refer to.

- 1. their (line 25) _____
- 2. its (line 30) _____
- 3. it (line 32) _____
- 4. their (line 32) _____
- 5. they (line 35) _____
- 6. whose (line 38) _____

(6 marks)

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D. Indicate whether the following statements are True (T) or False (F) by ticking the correct box.

- | | T | F |
|--|--------------------------|--------------------------|
| 1. Minicomputers can do work that until recently was done by microcomputers. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. The integrated circuitary of a micro-computer has been reduced to a chip | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Microcomputer technology will discontinue to improve. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Microcomputers are smaller, simpler and less flexible than minicomputers. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Minicomputer systems are not decreasing as much as microcomputer systems. | <input type="checkbox"/> | <input type="checkbox"/> |

(5 marks)

...5/-

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E. Complete the following statements with appropriate words in their correct form, i.e. singular or plural.

microcomputer	semiconductor	chip
microprocessor	circuit board	primary memory
minicomputer	micro	memory
	central processor	single

- _____ are often referred to as _____ for short.
- A _____ system is composed of a _____ and peripheral equipment.
- The _____ of a microcomputer is usually built as a single _____ device known as a _____.
- Microcomputers have a smaller _____ and cannot be hooked up to as many peripherals as _____.
- A _____ or a few _____ are normally used for the processor, memory and electronic controls of peripherals for microcomputers.

(14 marks)

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F. Complete the table below on the comparison between minicomputers and microcomputers.

	Minicomputers	Microcomputers
SPEED		
MEMORY CAPACITY		
MEMORY		
INSTRUCTION	simple, more flexible	
SOFTWARE AVAILABILITY	not as limited	

(8 marks)

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QUESTION II.

(33 marks)

This question has 6 parts: (A, B, C, D, E, F).
Read Text B in the Appendix and answer the questions which follow. Tick [✓] the correct answer.

A. 1. The instructions for processing data in a computer are

- a. stored in the CPU.
- b. not needed.
- c. in the keyboard.
- d. none of these.

2. The function of the compiler is to

- a. translate input data into machine language.
- b. bring raw data to the computer.
- c. record processed information on the output media.
- d. none of these.

3. The computer can make certain kinds of decisions because it contains

- a. a brain.
- b. an arithmetic/logic unit.
- c. a keyboard.
- d. none of these.

4. The component of the CPU that executes instructions is the

- a. arithmetic/logic unit.
- b. control unit.
- c. memory.
- d. storage component.

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5. Disks are classified as

- a. input media.
- b. auxiliary storage devices.
- c. output media.
- d. programs.

(5 marks)

B. Match the list of words in column A taken from Text B with suitable meanings in column B and write them in the space provided. The first one has been done for you.

	Column A	Column B
1.	configuration (line 2) <u>form</u>	controls
2.	resembles (line 12) _____	collects
3.	accumulates (line 30) _____	accomplish
4.	executes (line 38) _____	form
5.	vary (line 46) _____	supplied
6.	regulates (line 57) _____	looks like
7.	verifies (line 59) _____	confirms
8.	achieve (line 70) _____	change
9.	fed (line 75) _____	carries out.

(8 marks)

...9/-

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C. Refer to text B and write clear definitions for the following.

- 1. Application programs are _____

- 2. Disks are _____

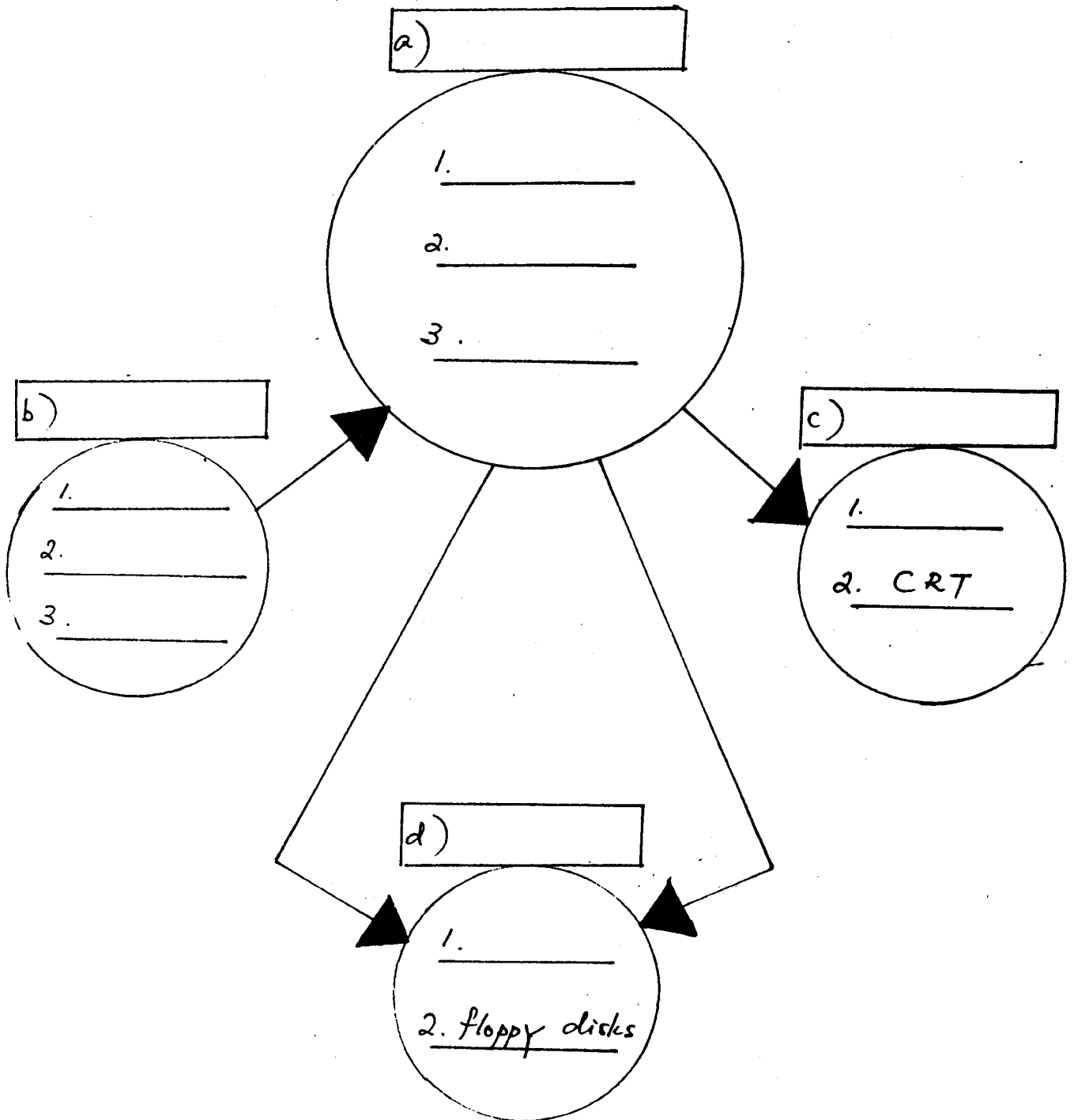
- 3. Auxiliary storage is _____

(6 marks)

...10/-

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D. Complete the diagram below by using information from TEXT B.



(6 marks)

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E. Read each of the short texts and answer the questions that follow. Tick [✓] the correct answer.

1. Comprising three different groups of programs, software differs from hardware in that it runs the latter by regulating activities of the computer, translating or compiling from high-level to machine language, and achieving the purpose of the user through application programs.

What is make up of three kinds of programs?

- a. a computer.
- b. hardware.
- c. application programs
- d. software.

2. Although a complex computer system may and usually does consist of numerous components, including several different input and output devices, in its simplest configuration a system is made up of three main components.

What is said about the components of a computer system?

- a. All systems consist of numerous components.
- b. No system needs more than three components.
- c. Every complete system has at least three parts.
- d. A computer system needs as many input devices as it has output devices.

(4 marks)

...12/-

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F. Indicate whether the following statements are True (T) or False (F) by ticking the correct box.

- | T | F | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Data and instructions for processing the data are stored in the internal storage component of a CPU. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Punched cards are the only input medium for computers. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. The arithmetic/logic unit of the computer can compare two numbers but it cannot determine which is the greater if they are unequal. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. The floppy disk is used for auxiliary storage. |

(4 marks)

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QUESTION III.

(27 marks)

- A. This question has 5 parts: (A, B, C, D, E).
Read the Preface below and then answer the questions which follow.

Author's Preface

Computers are now beginning to be used extensively in the engineering industry for both design (CAD) and manufacture (CAM). Much of the industrial design is performed within the drawing office by design and production draughtsman. Many organisations have introduced CAD techniques into the drawing office in the form of automatic draughting systems or computing graphics systems. Further more, CAD and CAM techniques are now being taught in a large number of universities as part of engineering or computer science courses. At present there are very few books on CAD which meet the requirements of designer draughts-men or engineering undergraduates who have had little computing experience.

This book aims to introduce the subject of computing as an aid to design and manufacture, and to take the reader through from the basics of computers to their application in real engineering draughting design and manufacture. It provides a description of both the hardware and software of CAD systems, together with a practical discussion of their use in engineering draughting. Two final chapters show how computer graphics, as part of the draughting process, can be linked with engineering analysis techniques to provide a CAD system for stressing engineering designs and for manufacturing engineering components by using NC machines.

Particular emphasis is given to the reader who has very little computing knowledge; and for those who become sufficiently interested to write their own graphics software, one chapter has been devoted to the description of algorithms used in computer graphics.

The book is based on the work of the CAD Section at Imperial College, and I am indebted to all who have worked with me in this field over the past six years. In particular I would mention some of my past research students, namely: Drs R. E. Grindley, A. D. Hamlyn, P. H. Huckle, D. Thompson, F. Ghassemi, and D. P. Craig, who have contributed so much to the success of the CAD and CAM research. Thanks are also due to the many firms who sponsored the CAD research and whose staff contributed so many ideas.

- (i) A possible title for this book would be: -
Tick [✓] the correct answer.

- a. Introduction to computers for engineers.
- b. Computer-aided graphics systems.
- c. Computer-aided design and manufacture.
- d. Computer-aid in the manufacturing industry.

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B. Fill in the table below by using information from the Preface.

General Purpose	
Possible readers	
Contents	
Previous knowledge required	

(6 marks)

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1. Where can you find the call number?

2. What do you do if you find the call number?

3. What do you do after you have a snack?

4. How do you find the location of the book?
Consult map location.

5. What do you do if you cannot find the book?

6. Where do you take the book if it is good?

7. What do you need to check out a book?

8. If you cannot find the call number of the book but are neither frustrated nor indifferent, you should return to the _____
9. If you cannot find the call number and do not care, you should go _____
10. If you are frustrated but do not want to eat or have a cigarette, you are instructed to _____
11. After having a snack or a cigarette, you should go to the card catalogue.

...18/-

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12. If you find the book, what decision must you make?

13. If you find the book you want, but it is not a good one, what three choices do you have?

(a) _____

(b) Go home _____

(c) _____

14. If you take the book to the check-out desk but discover you do not have your ID card, you are instructed to go _____

(12 marks)

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E. Read through the 4 short texts to get a general idea what each is about. Then match them with an appropriate diagram from the set which follows:-

Text 1

On-line processing

In an on-line mode of operation, the user communicates directly with the computer through its peripheral devices, and he can use all the available devices to their best advantage.

On-line processing is normally used where a high degree of interaction is necessary.

Text 2

Batch mode processing

This method of computing is usually used for straight forward computing processes involving no interaction between the user and the machine.

The user normally prepares data and machine operating instructions on punched cards, reads them into the machine and, sometime later, receives a print-out of results which he can examine at leisure. The results may also be received as a graph or drawing prepared by the computer's graph plotter.

Text 3

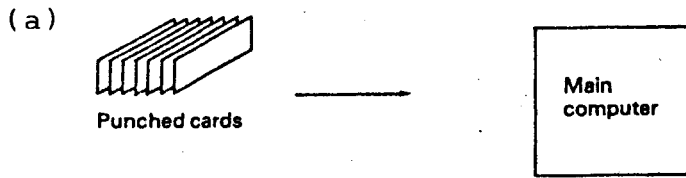
'Intelligent' terminal processing

The 'intelligent' terminal normally consists of a small computer with one or more peripheral devices, connected via a high-speed line to the large central computer.

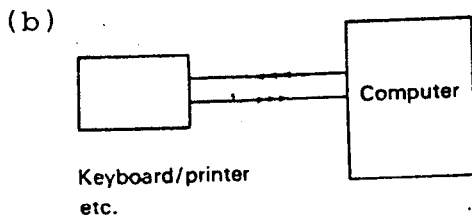
The use of this type of terminal is much the same as for the remote terminal, except that a wider range of communication devices can be used and a larger amount of data can be handled.

The terminal computer could have connected to it a refresh display with a light pen, card readers, magnetic tape etc., and could handle many users simultaneously.

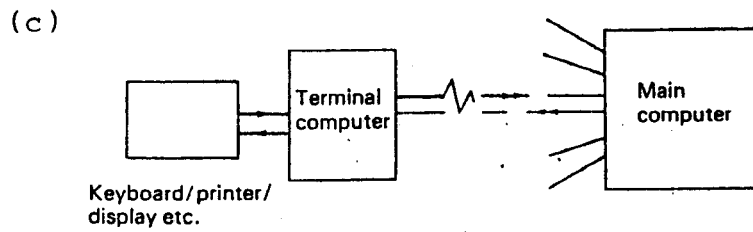
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Answer: Text _____



Answer: Text _____



Answer: Text _____

(3 marks)

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APPENDIX

This Appendix contains 2 texts - TEXT A and B

1. a) Use Text A in the Appendix to answer Question I.
b) Use Text B in the Appendix to answer Question II.

2. YOU MUST HAND IN THIS APPENDIX TOGETHER WITH YOUR ANSWER BOOKLET.

...2/-