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UNIVERSITI SAINS MALAYSIA

Peperiksaan Semester Kedua
Sidang 1986/87

Kursus Sains Matrikulasi I

TLD 102 - Bahasa Inggeris Matrikulasi I

Tarikh: 25 Mac 1987

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

1. Answer ALL questions.
2. Write your answers in the spaces provided in the question paper itself.
3. No additional answer script is to be attached.

Question	Full Marks	Student Score
1	6	
2	12	
3	9	
4	14	
5	9	
6	30	
7	20	
Total	100	

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Question 1 (6 marks)

Study the chart carefully and then fill in the blanks with appropriate verbs in their correct tense. Sentence one has been done as an example.

SHAN PALACE HOTEL Room Bookings		Date: 17th January	
Name	Room	Arrival	Departure
Mr Yang Ruilong	401	10 Jan	21 Jan
Mr and Mrs L.R.Lowe	714	13 Jan	18 Jan
Miss H.Hill	320	14 Jan	27 Jan
Mr S.Nakamuchi	862	15 Jan	18 Jan
Mr and Mrs D.E.da Silva	513	15 Jan	17 Jan
Mr Sweeney	309	16 Jan	18 Jan

1. Mr and Mrs Lowe stayed at the hotel for four days.
2. They on January 13th and on January 18th.
3. Mr Yang three days before the Lowes and until January 21st.
4. Mr and Mrs da Silva today but Mr Nakamuchi, who on the same day as the da Silva, until tomorrow.
5. Room 320 free until January 27th.
6. Mr Sweeney the hotel by January 20th.
7. Miss Hill longer than Mr Yang: all the other guests by the time she leaves.
8. Mr Nakamuchi at the hotel since January 15th.

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Question 2 (12 marks)

Change each of the following sentences, beginning the new sentence with the words given. Make sentence (b) as similar as possible in meaning to sentence (a).

Example:

- (a) I am too small to reach the top shelf.
- (b) I am not *big enough to reach the top shelf.*
- or I am not *tall enough to reach the top shelf.*

1. (a) I would like the old man to stay longer.
(b) I wish
2. (a) Mr Liang rarely arrives home before eight o'clock.
(b) Rarely
3. (a) It is difficult deciding what to do next.
(b) To
4. (a) They thought Tom would have already gone.
(b) They expected Tom to
5. (a) My uncle wants me to go with him to Malacca.
(b) My uncle suggests that
6. (a) It will take a long time to do this crossword puzzle.
(b) Doing
7. (a) I shall reward anyone who can help me.
(b) Anyone who
8. (a) Helen insisted that we stay.
(b) Helen insisted on
9. (a) I wish Mr Luo would telephone.
(b) If only

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- 10. (a) I had seldom witnessed such rude behaviour.
- (b) Seldom

- 11. (a) Has Meiling written to anyone in the class?
- (b) Has anyone ?

- 12. (a) Although we were uncomfortable during the journey,
 we enjoyed the beautiful scenery.
- (b) We enjoyed the beautiful scenery in spite
-

Question 3 (9 marks)

Every seventh word has been omitted from the following newspaper article. Rewrite the article, replacing each blank with the most appropriate word.

An Indonesian girl, given up for dead more than 14 years ago, has been found alive in the jungles of Aceh, North Sumatra, the local KNI News Agency reported yesterday.

It said that the girl, who^{was}..... only thirteen when she disappeared, was^{found}..... by two villagers recently. The girl naked, with scars all over her and unable to speak.

The agency the girl, Miss Rusdah, ran away home when the boy she loved off their wedding because her fatherraised the dowry.

The parents had her up as dead after scouring jungles in the area completely in

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Unconfirmed press reports reaching here said
whereabouts of the jungle girls were revealed by two
rattan harvesters who they saw the girl during their
..... trip to the jungle.

They succeeded persuading the girl to return
with to the village to Bentom, the
said.

They said the girl, now with an uncle, had
forgotten how speak.

(Reuter: New Nation 6 Jan 1978)

Question 4 (14 marks)

Read the passage carefully and then answer A and B following it.

Some problems of automation

In an automated plant there is frequently very little for the operator to do; the rooms are usually kept at comfortable temperatures and the noise levels are low. It is a common experience that as the environment becomes more comfortable and stimulation is reduced, so men become drowsy or bored and inattentive. This condition reduces efficiency in the sense that quick and effective responses to emergencies suffer, and it also means that danger symptoms are often not spotted until it is too late. A number of techniques for overcoming these problems are available, and active research is going on, for example, into methods of improving the efficiency of signal detection, that is, the ability to pick out an important signal from other, less important or irrelevant signals. 5 10

One widely used method is the *false alarm*. Here artificial fault conditions are signalled to the operator who does not know at the time whether there is a real emergency or not and he must take the appropriate action as if it were a real crisis. This cannot be used in certain plants without the operator immediately being aware that it is a false alarm, and in any case too many false alarms build up a negative attitude in the operator. 15 20

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A certain number of test alarms can be useful but they must be very carefully planned so that they are indistinguishable from the real thing and are relatively unpredictable. Experimental studies of men doing watch-keeping tasks have suggested a number of other methods for improving alertness: for example, a certain amount of noise or background music and variations in temperature and humidity are useful. Much more attention could be paid to making the environment in control rooms more stimulating without distracting the man from his primary task. One important factor often overlooked is the beneficial effects of social contact with other people - even telephone contact is valuable. It may, for example, be worthwhile using a man to deliver a message which could well be done by an electronic link, since letting the man do the task enables him to meet other people.

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The problem of ensuring appropriate actions in an emergency is in many ways more difficult to solve. Many fault conditions can be anticipated and suitable emergency drills prepared, but the very nature of the modern complex plant means that it is virtually impossible to predict all the different things which can go wrong. It is still necessary to rely on the operator recognising the presence of danger conditions and taking the appropriate actions. This means that operators may have to have a much more detailed knowledge of the plant and how it works than may be apparent at first sight.

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(From "Ergonomics and Automation" by R.J.Beishon)

A. *Tick the correct choice to complete each sentence*

1. When working conditions are made very comfortable, the workers usually
 - A. become less efficient.
 - B. feel greatly stimulated.
 - C. carry out wrong operations.
 - D. express their discontent.

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2. In order to overcome the problems which result from comfortable working conditions, workers are given
 - A. higher salaries.
 - B. irrelevant signals.
 - C. test alarms.
 - D. watch-keeping tasks.

3. If there are a lot of false alarms, the worker
 - A. does not know whether there is a real emergency or not.
 - B. is made much more aware and conscious of danger.
 - C. grows relatively unpredictable.
 - D. becomes used to the alarms and does not respond properly.

4. According to the writer, the temperature and humidity in an automated plant should be
 - A. varied.
 - B. raised.
 - C. reduced.
 - D. kept constant.

5. Social contact between workers is often
 - A. valuable.
 - B. harmful.
 - C. neither valuable nor harmful.
 - D. valuable for the people concerned but harmful for efficiency.

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6. Because modern factories are so complex,
- A. the operator cannot possibly know when something is wrong with a machine.
 - B. the operator is able to detect any mechanical fault easily.
 - C. the operator's job is made double.
 - D. the operator manages the whole factory by himself.

B. *Tick the word which best completes each sentence.*

1. There is a great in temperature in England during early summer.

- A. variation B. variance C. variety
- D. variant E. variable

2. Please that you have completed the form correctly.

- A. settle B. attend C. depend
- D. rely E. ensure

3. My father is a worker in Jurong.

- A. factory B. machine C. business
- D. plant E. trade

4. Mr Li complained that his secretary was not very

- A. efficient B. effective C. affected
- D. affecting E. effectual

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5. Going to bed early and getting up early are
to health.
- A. advantageous B. meriting C. influential
D. beneficial E. helpful
6. Don't worry: I don't any opposition to
your plan.
- A. reflect B. meditate C. anticipate
D. dictate E. humiliate
7. It is quite that he dislikes Ann: he never
speaks to her.
- A. seeming B. observable C. recognisable
D. apparent E. knowledgeable
8. John is totally: you never know what he
will do next.
- A. unpredictable B. unexpected C. advanced
D. disturbed E. misunderstood

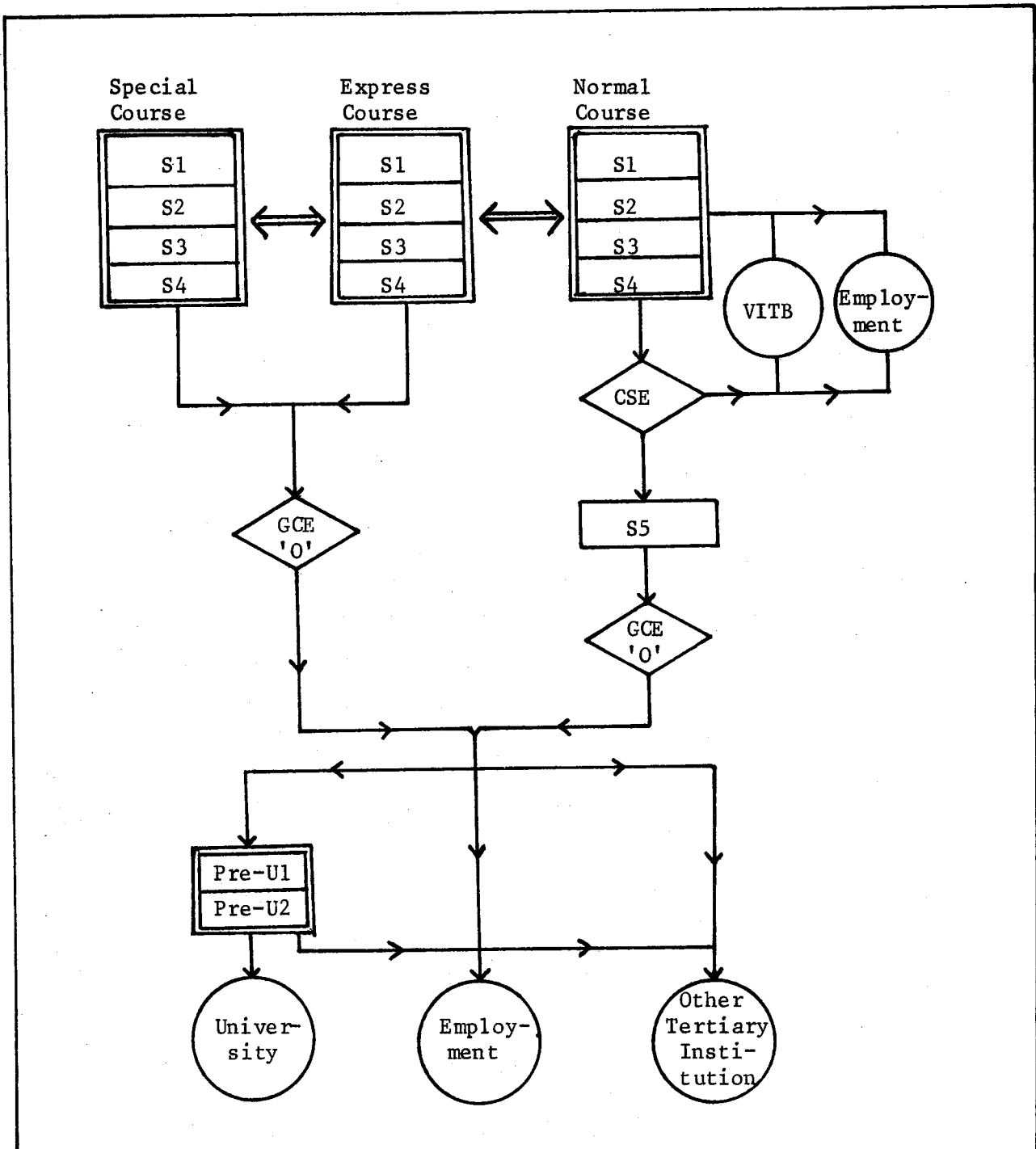
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Question 5 (9 marks)

Study the following educational flow-chart carefully and then complete the notes following it, putting one word or several words in place of each blank.



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Educational paths open to secondary school pupils.

1. Pupils in courses have the opportunity of entering pre-university classes by passing the examination after four years of secondary education.
2. Pupils in the course may sit the GCE 'O' level examination by first passing the examination and subsequently doing of secondary education.
3. To qualify for entry into the University pupils in the courses must do years of pre-university classes.
4. Pupils from courses who do not qualify to enter pre-university classes may be considered for or for employment.

Question 6 (30 marks)

Read the description on electrolysis and answer questions A, B, C and D.

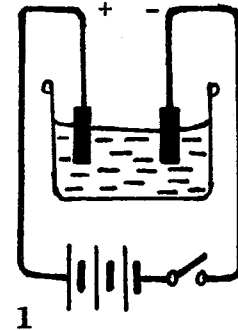
Some liquids which act as conductors of electricity decompose when an electric current is passed through them. Such liquids, usually solutions of certain chemicals in water, are known as electrolytes. The process by which they are decomposed is called electrolysis.

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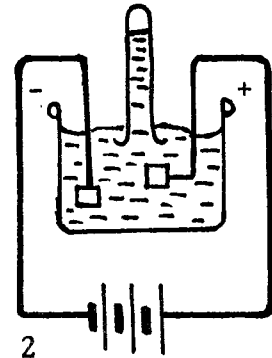
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5 In electrolysis, two wires or pieces of metal connected to a battery or cell are placed in a vessel containing an electrolyte. These are called electrodes.



10 The electrode connected to the negative terminal of the battery (marked '-' in Diagram 1) is called the cathode, and that which is connected to the positive terminal, which is marked '+' in the diagram, is called the anode.

15 When the current is switched on, it passes from the battery to the anode and then through the electrolyte to the cathode, passing from there back to the battery. As the current passes from one electrode to the other a chemical reaction takes place. As an example, let us consider what happens when platinum electrodes are used with an electrolyte of copper sulphate solution. Two pieces of platinum foil are connected to a battery. One piece is connected to the positive terminal and the other to the negative. They are then placed in blue copper sulphate solution contained in a beaker. A test tube is filled with the solution and fixed over the anode, as shown in Diagram 2. When the current is switched on it passes from the anode to the cathode through the solution. It will be seen that the blue solution of copper sulphate gradually becomes paler as the current passes through it. At the same time, gas is given off from the anode and is collected in the test tube.



30 The copper sulphate solution gets paler because it is decomposed by the electric current passing through it. It is the copper which gives the solution its blue colour and some of this has been broken up, or dissociated, into electrically charged particles, or ions. When a current passes through the solution, the positively charged ions of copper are attracted to the cathode.

35 There they are neutralized by the negative charge of the cathode and particles of copper are deposited on the platinum foil. Meanwhile, the anode gives off oxygen, which is collected in the test tube.

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A. Study the following statements and write in the boxes adjacent to them either T for true or F for false.

a) Liquids which decompose when an electric current passes through them are called electrolytes.

b) Electrolytes are solutions of certain chemicals in water.

c) A cathode is an electrode which is connected to the negative terminal of a battery.

d) A chemical reaction takes place when an electric current passes through an electrolyte.

e) Gas is given off by the anode as the electric current passes through the solution.

f) Some of the copper in the copper sulphate solution is broken up into ions when an electric current passes through the solution.

g) Ions are positively charged through the solution.

h) Copper deposits form on the cathode.

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- B. Copy diagrams 1 and 2 and label them with reference to the lists.

Diagram 1

battery
electrodes
anode
cathode
electrolyte
switch
vessel

Diagram 2

platinum coil
copper sulphate solution
test tube
oxygen
copper deposit
anode
cathode
beaker
battery

Diagram 1

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Diagram 2

C. Change the following statements into directions.

1. Two pieces of platinum foil are connected to a battery.

2. One piece is connected to the positive terminal and the other to the negative.

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3. They are then placed in blue copper sulphate solution contained in a beaker.

4. A test tube is filled with the solution and fixed over the anode.

D. The following words have specific references. Give their references as they are used in the description. Number 1 is done as an example.

1. them (line 2) = some liquids.

2. they (line 4) = _____

3. These (line 7) = _____

4. the other (line 17) = _____

5. us (line 18) = _____

6. One piece (line 20) = _____

7. They (line 21) = _____

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8. it (line 28) = _____

9. it (line 31) = _____

10. some (line 33) = _____

11. which (line 39) = _____

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Question 7 (20 marks)*Study the chart and complete the statements.*

Characteristics	Hydrofoil	Displacement Ship	ACV/ Hovercraft
A Rides on a cushion of air	X	X	✓
B Operates with most of its hull below water	X	✓	X
C 'Wings' or foils are attached to the hull	✓	X	X
D Gives a smooth ride even in rough seas	✓	X	✓
E Operates with most of its hull out of the water	✓	X	X
F Travels at cruising speeds of around 80 km/h	✓	X	✓
G Can operate by wind-power	X	✓	X
H Operates totally free of the problems of drag or water resistance	X	X	✓
I Can negotiate almost any surface - water, concrete, sand, snow, etc	X	X	✓
J Can glide over rapids	X	X	✓
K Can transport cars and passengers	✓	✓	✓
L Can unload on dry land	X	X	✓

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1. All the three water transport systems can

2. _____ has
most of the characteristics listed in the chart.

3. The following characteristics are only available in
the hovercraft :

- 1. _____
- 2. _____
- 3. _____
- 4. _____

4. Hydrofoil has the following characteristics in which the
other two water transport systems do not have:

- 1. _____
- 2. _____

5. Displacement ship is different compared to hydrofoil
and hovercraft because it:

- 1. _____
- 2. _____

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- 6. The following characteristics are found only in hydrofoil and hovercraft :
 - 1. _____
 - 2. _____

- 7. _____ is a better water transport system nowadays.

- 8. A tourist who likes to travel fast is advised to take either _____ or _____ .

- 9. In any shallow water, only _____ can be used as a means of water transport.

- 10. _____ is a water transport system that can operate all year round.

- 11. State your choice of priority if you are allowed to choose all the three water transport systems for your journey.
 - Priority 1 : _____
 - Priority 2 : _____
 - Priority 3 : _____

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