

PRACTICE PAPER
INFORMATION AND COMMUNICATION TECHNOLOGY
PAPER 1 (SECTION A)

(2 hours for both Sections A and B)

INSTRUCTIONS

1. Read carefully the instructions on the Answer Sheet. After the announcement of the start of the examination, you should first stick a barcode label and insert the information required in the spaces provided. No extra time will be given for sticking on the barcode label after the 'Time is up' announcement.
2. When told to open this book, you should check that all the questions are there. Look for the words '**END OF PAPER**' after the last question.
3. All questions carry equal marks.
4. **ANSWER ALL QUESTIONS.** You are advised to use an HB pencil to mark all the answers on the Answer Sheet, so that wrong marks can be completely erased with a clean rubber. You must mark the answers clearly; otherwise you will lose marks if the answers cannot be captured.
5. You should mark only **ONE** answer for each question. If you mark more than one answer, you will receive **NO MARKS** for that question.
6. No marks will be deducted for wrong answers.

There are 40 questions in this paper. Choose the most suitable answer.

1. After editing a document file, Jenny sends it to Peter for further editing. They use different word processors. In order to keep the document format the same, which of the following file formats should Jenny use?
 - A. TXT
 - B. PDF
 - C. RTF
 - D. TIF
2. Mary wants to convert an audio file, abc.wav, to mp3 format. What should she do?
 - A. Use audio editing software to export the file in mp3 format.
 - B. Rename the file as abc.mp3.
 - C. Open the file with audio recognition software and save it as another file, abc.mp3.
 - D. Copy the file to an mp3 player.
3. A colour photo is scanned using a scanner with 24-bit colours instead of 8-bit colours. This means that, in the chosen scanner,
 - (1) the resolution is higher.
 - (2) the file size is larger.
 - (3) more different colours can be scanned.
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
4. A machine adopts two's complement for the representation of 4-bit integer. Which of the following calculations is more likely to have an overflow error?
 - A. $3 + 3 + 2 - 4$
 - B. $2 - 4 + 3 + 3$
 - C. $3 + 3 - 4 + 2$
 - D. $-4 - 2 - 2$
5. Which of the following statements about character representation is/are correct?
 - (1) GB code supports both traditional and simplified Chinese characters.
 - (2) Unicode represents more characters than GB code does.
 - (3) The concept of ASCII is no longer applicable because of the use of Unicode.
 - A. (1) only
 - B. (2) only
 - C. (3) only
 - D. (2) and (3) only
6. Peter wants to extract records with a data item within a range of values from a database. Which of the following SQL operators should he use?
 - A. LIKE
 - B. IN
 - C. DISTINCT
 - D. BETWEEN

Answer Questions 7 and 8 with reference to the following spreadsheet.

	A	B	C	D	E
1	Full name	Last name	First name	Date of birth	Age
2	CHAN TAI MAN	CHAN	TAI MAN	14/03/1980	31.0
3	CHEUNG MEI LAI	CHEUNG	MEI LAI	20/06/1978	32.7
4	SO SIU MING	SO	SIU MING	15/12/1985	25.5

7. Which of the following formulae is used in C2?
- A. =A2-B2
 B. =LEFT(A2, LEN(A2)-LEN(B2)-1)
 C. =MID(A2, LEN(A2)-LEN(B2)+1, 1)
 D. =RIGHT(A2, LEN(A2)-LEN(B2)-1)
8. Which of the following formulae can be used to calculate the approximate age in E2?
- A. =NOW(1980, 3, 14)
 B. =NOW(1980, 3, 14)/365
 C. =(NOW()-D2)/365
 D. =DATE(1980, 3, 14)-NOW()
9. Some sales records are stored in spreadsheet software, as shown below:

Product	Month	Quantity
DVD	2	5
Mobile Phone	2	4
DVD	1	23
DVD	2	13
⋮	⋮	⋮
TV	3	8

A pivot table is generated based on the sales records, as shown below:

Sum of Quantity	Product			
Month	DVD	Mobile Phone	TV	Grand Total
1	43	18	5	66
2	18	20	6	44
3	15	18	9	42
Grand Total	76	56	20	152

What are the settings of the fields?

- | | |
|-------------------|---------------------|
| <u>Row Field</u> | <u>Column Field</u> |
| A. Month | Product |
| B. Product, Month | Quantity |
| C. Quantity | Product, Month |
| D. Product | Month |

10. Ms Lee wants to find students in Class 1A from a list of all students stored in a spreadsheet.

Class	Name
1A	CHAN TAI MAN
2C	CHEUNG MEI LAI
1A	SO SIU MING
3B	LI KA MAN
4D	YIP HIU YEE
1A	WONG HO YIN
⋮	⋮

⇒

Class	Name
1A	CHAN TAI MAN
1A	SO SIU MING
1A	WONG HO YIN
⋮	⋮

Which of the following functions should she use?

- A. Copy and paste
 - B. Delete
 - C. Filter
 - D. Find
11. Peter wants to replace the short form, 'LAN', with the full name, 'Local Area Network' in a document, as shown below.

Before: "The High Land School wants to build a LAN to ..."

After: "The High Land School wants to build a Local Area Network to ..."

Which of the following search options in the REPLACE function of a word processor should Peter choose?

- (1) Use wildcards
 - (2) Find whole word only
 - (3) Match case
 - (4) Sounds like
- A. (2) and (3) only
 - B. (2) and (4) only
 - C. (1), (2) and (4) only
 - D. (1), (3) and (4) only
12. Which of the following are common ways of showing record information in a database report?
- (1) Records in a particular order
 - (2) Records that meet certain criteria
 - (3) Records with a table of contents
 - (4) Summary information of records
- A. (2) and (3) only
 - B. (1) and (3) only
 - C. (1) and (4) only
 - D. (1), (2) and (4) only

13. Which of the following attributes of an object will be saved when using Object Linking and Embedding with a document?

<u>Object Linking</u>	<u>Object Embedding</u>
A. Path of the object	Path of the object
B. Object content	Path of the object
C. Path of the object	Object content
D. Object content	Object content

14. In which of the following hardware components can files be accessed in direct access mode?

- (1) Flash memory card
- (2) DVD-RW
- (3) Hard disk
- (4) Magnetic tape

- A. (1) and (3) only
- B. (2) and (4) only
- C. (3) and (4) only
- D. (1), (2) and (3) only

15. A device is installed in a vehicle to record the traffic using a camera. Which file format and storage medium are appropriate for the device?

<u>File format</u>	<u>Storage medium</u>
A. AVI	DVD-RW
B. AVI	Flash memory card
C. WMA	DVD-RW
D. WMA	Flash memory card

16. Which of the following programs is used to improve the access time of files in a hard disk?

- A. Virus checker
- B. Defragmentation program
- C. Backup program
- D. File encryption program

17. In a commercial building, the security system will activate the alarm if one of the main doors is opened between 12 a.m. and 6 a.m. What kind of system is this?

- A. Batch processing system
- B. Real-time system
- C. On-line interactive system
- D. Multi-user system

18. Which of the following data will be stored in the program counter in a machine cycle?

- A. Memory address
- B. Memory data
- C. Instruction
- D. Number of instructions

19. Which of the following are the main functions of a CPU?
- (1) Performing arithmetic and logical operations.
 - (2) Storing system data permanently.
 - (3) Executing instructions of computer programs.
 - (4) Providing an interface between user and system.
- A. (1) and (3) only
B. (2) and (3) only
C. (2) and (4) only
D. (1), (3) and (4) only
20. Which of the following statements about registers in a CPU is/are correct?
- (1) They are 8 bits long.
 - (2) Cache memory is a kind of register.
 - (3) Accumulator is a kind of register.
- A. (1) only
B. (1) and (2) only
C. (3) only
D. (2) and (3) only
21. If the Government establishes an ‘*Anti-drugs Authority*’ in Hong Kong, which of the following domain names would be appropriate for it?
- A. ada.com.hk
B. ADA.idv
C. ADA.edu.hk
D. ada.gov.hk
22. A company establishes a WAN instead of a LAN mainly because of the _____.
- A. cost
B. coverage
C. data transmission rate
D. number of users supported
23. When browsing a simple web page over the Internet, how will the content of the web page normally be transmitted?
- A. The content will be divided into several packets that are probably sent through a single physical path.
B. The content will be divided into several packets that are probably sent through different physical paths.
C. The content will be encrypted and sent through a single physical path.
D. The content will be encrypted and sent through different physical paths.
24. A company subscribes for a 10M leased line instead of a 10M broadband connection because _____.
- A. the maximum data transfer rate is higher
B. it is cheaper
C. it is more secure
D. it is for commercial use only

25. Which of the following statements about the use of video streaming technology is/are correct?

- (1) The data transfer rate can be increased.
- (2) The video can be watched before the file is completely downloaded.
- (3) The video quality can be enhanced.

- A. (1) only
- B. (2) only
- C. (1) and (3) only
- D. (2) and (3) only

26. Which of the following statements about constructing traditional frames in a web page is/are correct?

- (1) More than one HTML file is needed.
- (2) A table with more than one column or row is needed.
- (3) More than one background colour is needed.

- A. (1) only
- B. (1) and (2) only
- C. (2) and (3) only
- D. (3) only

27. Tom wants to upgrade the bandwidth of a school network from 100 Mbps to 10 Gbps. Which of the following upgrade plans do you suggest?

<u>Current</u>	<u>Suggested upgrade</u>
A. Internal network interface card	USB network interface card
B. wired connection	wireless connection
C. CAT 5 cable	Optical fibre
D. switch	hub

28. A research company estimates that in 2012 China has over 500 million Internet users. China's Internet population becomes the largest in the world. Which of the following statements about China is/are correct?

- (1) The growth in e-commerce will be greatly accelerated.
- (2) The number of computers per person is the largest in the world.
- (3) The broadband quality is the best in the world.

- A. (1) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (2) only

29. P and Q represent $A \geq 18$ and $A \leq 60$ respectively. For which of the following values of A will the Boolean expression, NOT (P AND Q), be true?

- (1) 0
- (2) 18
- (3) 30
- (4) 80

- A. (3) only
- B. (2) and (3) only
- C. (1) and (4) only
- D. (1), (2) and (4) only

30. What kind of information is stated in the user manual of a software package?

- A. Algorithm design
- B. Algorithm testing
- C. Source codes
- D. System requirements

31. Which of the following sequences of tasks in problem solving procedures is correct?

- (1) Outline the input and output requirements of the problem.
- (2) Define the scope of the problem.
- (3) Evaluate the output of the solution to the problem.
- (4) Complete the testing and debugging.

- A. (1) → (2) → (3) → (4)
- B. (1) → (2) → (4) → (3)
- C. (2) → (1) → (3) → (4)
- D. (2) → (1) → (4) → (3)

32. What is the final value of A in the following pseudo codes?

```
A ← 5
B ← 10
IF (2×A) > 8
THEN IF A > (5+B)
      THEN A ← B
      ELSE B ← A
ELSE A ← A + 8
```

- A. 5
- B. 8
- C. 10
- D. 13

33. Consider the following pseudo codes.

```
S ← 1
INPUT A
WHILE (S < 10)
    S ← S + A
```

Which kind of input values will prevent the occurrence of an infinite loop?

- A. Any integer
 - B. Negative number
 - C. Zero
 - D. Positive number
34. A web site adopts an encryption key 2048 bits long instead of 1024 bits long. Why does this increase the security level?
- A. Hackers take more time to crack the system.
 - B. The time for data transmission increases.
 - C. It is more difficult to memorise the key.
 - D. The size of an encrypted data packet increases.
35. Which of the following examples can effectively reduce theft of digital intellectual property?
- (1) Use of digital watermarks
 - (2) Setting up firewalls
 - (3) Updating virus definition files frequently
- A. (1) only
 - B. (2) only
 - C. (1) and (3) only
 - D. (2) and (3) only
36. In the following HTML code, what are the six digits after '#'?
- ```
<BODY BGCOLOR="#112233">
```
- (1) They represent three values for the colours red, green and blue.
  - (2) They are used to transfer to DNS for web browsing.
  - (3) They refer to three hexadecimal values.
- A. (1) only
  - B. (2) only
  - C. (1) and (3) only
  - D. (2) and (3) only

37. Mrs Lee does not allow her son to use Bit Torrent freeware on her home computer because
- (1) her son may download illegal software.
  - (2) it is illegal to use the software.
  - (3) his school does not install this software.
- A. (1) only
  - B. (1) and (2) only
  - C. (1) and (3) only
  - D. (2) and (3) only
38. Which of the following equipment can help to minimise repetitive strain injury to fingers and wrists during typing?
- A. A footrest
  - B. An armrest
  - C. A large screen
  - D. A large desk
39. The disconnected security token illustrated below is commonly used for online authentication. Which of the following statements about such authentication is correct?



- A. No username and password are needed.
  - B. The six-digit number changes regularly.
  - C. Once the button is pressed, a six-digit number is imported from a server to the token.
  - D. Digits are used because they can be converted into ASCII code.
40. Computer Assisted Diagnosis (CADx) helps doctors interpret medical images of the human body. It combines the elements of artificial intelligence and digital image processing. Which of the following domains of knowledge is the most important to CADx?
- A. Office automation software
  - B. Web authoring
  - C. Algorithm design
  - D. Machine organisation

**END OF PAPER**

PP-DSE  
ICT

PAPER 1  
(SECT B)

HONG KONG EXAMINATIONS AND ASSESSMENT AUTHORITY  
HONG KONG DIPLOMA OF SECONDARY EDUCATION EXAMINATION

**PRACTICE PAPER**  
**INFORMATION AND COMMUNICATION TECHNOLOGY**  
**PAPER 1 (SECTION B)**  
**Question-Answer Book**

(2 hours for both Sections A and B)  
This paper must be answered in English

**INSTRUCTIONS**

- (1) After the announcement of the start of the examination, you should first write your Candidate Number in the space provided on Page 1 and stick barcode labels in the spaces provided on Pages 1, 3 and 5.
- (2) **ANSWER ALL QUESTIONS.** Write your answers in the spaces provided in this Question-Answer book. Do not write in the margins. Answers written in the margins will not be marked.
- (3) Supplementary answer sheets will be supplied on request. Write your Candidate Number, mark the question number box and stick a barcode label on each sheet, and fasten them with string **INSIDE** this book.
- (4) No extra time will be given to candidates for sticking on the barcode labels or filling in the question number boxes after the 'Time is up' announcement.

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Please stick the barcode label here.

Candidate Number



**Answer all questions.**

1. Mr Wong is responsible for setting up an inventory system in a supermarket. He creates a database table, INVENTORY, to store the information on products for sale. Part of INVENTORY is shown below:

INVENTORY

CAT	CODE	NAME	PRICE	QTY
(Category)	(Product code)	(Product Name)	(Price of product)	(Number of items in stock)
Beverage	B163	BEST juice	10.0	10
Snack	S968	좋은감자칩	12.2	40
Noodle	N042	乐乐浓汤鸡面	20.2	20
Beverage	B482	FRESH tea	25.9	80
Noodle	N091	QQ noodle	8.4	50

- (a) Which field, CAT, CODE, NAME, PRICE or QTY, should be used as a key field? \_\_\_\_\_ (1 mark)

- (b) The data type of QTY is integer. Judy, Mr Wong's colleague, suggests changing it to real number or string. Mr Wong disagrees with Judy's suggestion. Why?

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(2 marks)

- (c) For storing data under NAME, which character encoding system is most suitable? Explain briefly.

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(2 marks)

- (d) (i) Mr Wong writes the following SQL command. Based on the five given records in INVENTORY above, what is the query result?

Select CODE, PRICE from INVENTORY where PRICE > 10 and QTY < 40

- (ii) INVENTORY is imported into a spreadsheet file. Describe, with steps, how to use the functions of spreadsheet software to extract the same data as the query result in (d)(i).

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(4 marks)

Answers written in the margins will not be marked.

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Answers written in the margins will not be marked.

Please stick the barcode label here.

- (e) Mr Wong considers replacing the existing barcode system with a Radio Frequency Identification (RFID) system, to capture product information. State one advantage and one disadvantage of using the RFID system over the barcode system.

Advantage: \_\_\_\_\_

\_\_\_\_\_

Disadvantage: \_\_\_\_\_

\_\_\_\_\_

(2 marks)

2. Susan buys a tablet PC for her work. The specifications of the PC are shown below.

CPU	1.2 GHz dual-core processor
Display unit	8-inch LED touch screen
Memory and storage	512 MB (ROM), 64 GB flash memory
Input / Output	USB 2.0, Built-in speaker
Connectivity	Wi-Fi, Bluetooth
Battery (life time)	14 hours
Weight	0.5 kg
Dimension	190×130×10 mm

- (a) State **two** features of the tablet PC that are mainly designed for mobility.

\_\_\_\_\_

\_\_\_\_\_

(2 marks)

- (b) (i) The tablet PC has 64 GB flash memory installed, which is quite different from an ordinary notebook computer. Why?

\_\_\_\_\_

\_\_\_\_\_

- (ii) Should SDRAM replace the flash memory in the tablet PC? Explain briefly.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(3 marks)

Answers written in the margins will not be marked.

- (c) What is the most important program stored in the ROM of the tablet PC?

\_\_\_\_\_ (1 mark)

Susan finds that her desktop computer at work is infected with a computer virus.

- (d) (i) State **two** possible ways that the computer virus can be spread to other computers through the Internet.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- (ii) Sometimes even state-of-the-art antivirus software cannot remove some computer viruses. Explain briefly why this is the case.

\_\_\_\_\_  
\_\_\_\_\_  
(3 marks)

Susan suggests that Patrick, a technician in the company, install photo editing shareware with a 30-day trial period on the office computers.

- (e) (i) Before the installation, what copyright issue should Patrick know about? What document should he read?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- (ii) Susan downloads and installs a pirated copy of photo editing software on her computer. What is the possible legal consequence of her action?

\_\_\_\_\_  
(3 marks)

- (f) Patrick installs a software package on all computers such that the system in each computer will be automatically restored to its original state on every reboot. Give one advantage and one disadvantage of this software package.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(2 marks)

3. Mr Law develops a computer system with the help of Ada and Ben. The system is used to find the equivalent grade for an input mark.

(a) Ada uses the following pseudocode to represent her algorithm.

Step 1: Input a value into MARK

Step 2: If MARK < 40 Then GRADE ← 'Unattained'

Step 3: If MARK ≥ 40 Then GRADE ← 'Attained'

Step 4: If MARK ≥ 80 Then GRADE ← 'Distinction'

Step 5: Output GRADE

(i) What is the value of GRADE for each of the following values of MARK?

(1) MARK = 40      GRADE = \_\_\_\_\_

(2) MARK = 200      GRADE = \_\_\_\_\_

(ii) Ada modifies the pseudocode by applying iteration control structure in Step 1 so that the value of MARK is between 0 and 100 inclusive as shown below.

Step 1: Repeat the input of values into MARK when the value of MARK is smaller than 0 or larger than 100

(1) Other than 0 and 100, give another test datum that can be used to identify the boundary cases of the algorithm.

\_\_\_\_\_

(2) Which type of iteration control structure, pre-test, post-test or for loop, is used by Ada?

\_\_\_\_\_

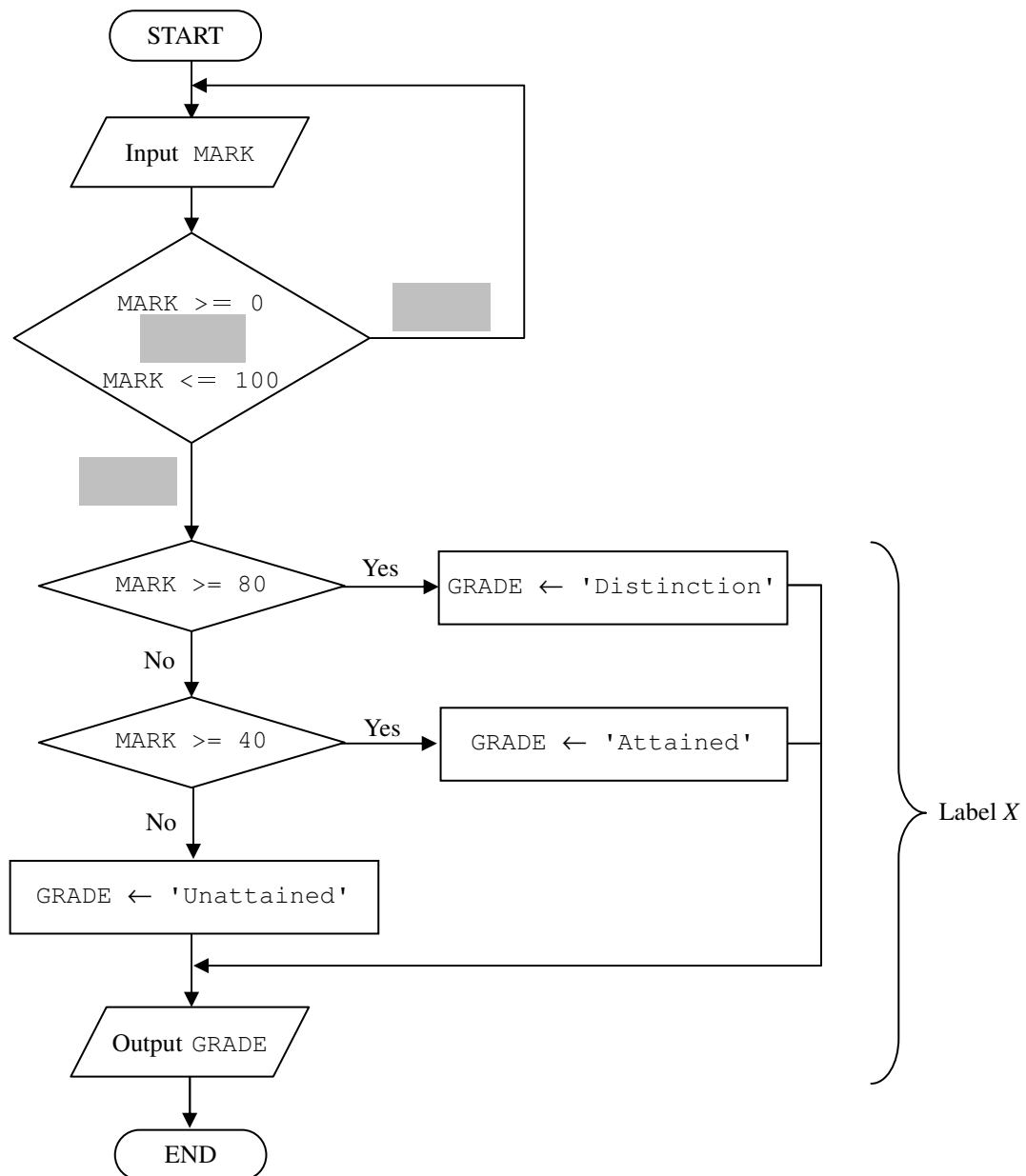
(4 marks)

Answers written in the margins will not be marked.

Answers written in the margins will not be marked.

Answers written in the margins will not be marked.

- (b) Ben uses the following flowchart to represent his algorithm. Write down YES, NO and an appropriate operator in the shaded areas for the first decision box.



(2 marks)

- (c) Compare the algorithm indicated by Label X with Ada's algorithm. Which one is more efficient? Explain briefly.

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(2 marks)

Answers written in the margins will not be marked.



(d) A workstation in the system provides a virtual keyboard on the screen which can be used to enter the marks.

(i) Give one advantage and one disadvantage of this design.

Advantage: \_\_\_\_\_

\_\_\_\_\_

Disadvantage: \_\_\_\_\_

\_\_\_\_\_

(ii) Suggest a common way to connect a keyboard to the workstation other than using a USB port.

\_\_\_\_\_

(iii) Mr Law wants to connect a USB printer to the workstation but the connection fails. What is the potential software problem?

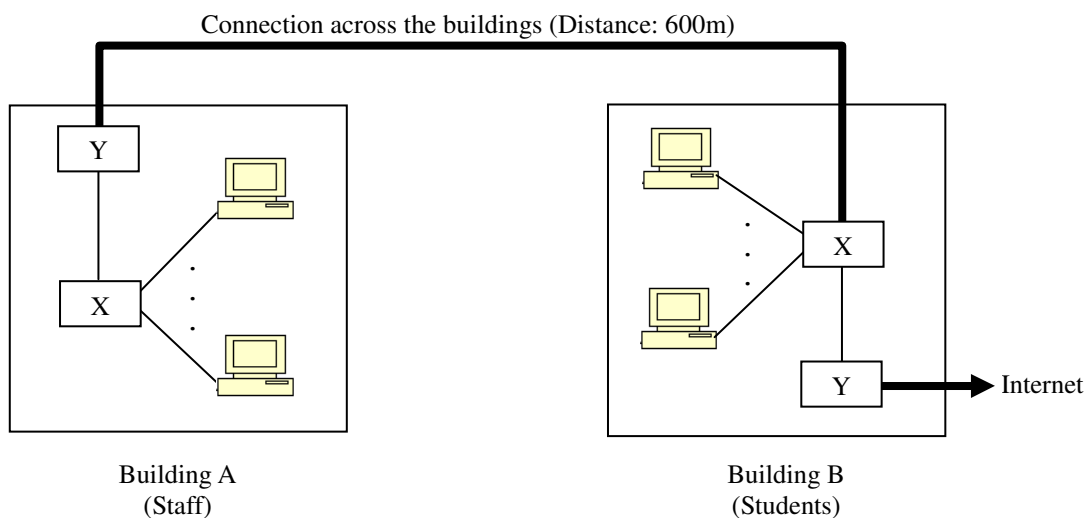
\_\_\_\_\_

\_\_\_\_\_

(4 marks)

Answers written in the margins will not be marked.

4. Mr Li is the IT manager of a university in Australia. On the campus there are two computer networks located in Building A and Building B which are used by staff and students respectively. The two buildings are 600m apart, as shown below.



- (a) (i) What network connecting devices are X and Y?

X: \_\_\_\_\_ Y: \_\_\_\_\_

- (ii) Suggest a suitable type of network cable for the connection across the buildings and justify your answer.

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- (iii) Instead of using a wired connection, Mr Li wants to connect two networks by installing microwave dishes on the roofs of the buildings. State **two** disadvantages of this approach.

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(5 marks)

- (b) Mr Li subscribes to an Internet connection. A cable modem is needed to connect the campus network to the Internet. What is the function of the cable modem?

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(2 marks)

Answers written in the margins will not be marked.

- (c) Mr Li sets up an email server in the university and offers an email account to each student. In each of the following cases, which email protocol for accessing email boxes is preferable? Justify your answer.

(i) Each email box only has 5 MB storage space.

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(ii) Students can access their email boxes through any computer with Internet access.

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(4 marks)

5. Peter wants to study the air quality in Shatin and Kwun Tong. He downloads the air quality monitoring data from the website of the Environmental Protection Department, as shown below:

Environmental Protection Department									
Air Quality Monitoring Data									
You have selected the <i>Shatin</i> Station.									
Data is available from 1-7-2008 to 30-9-2010.									
From:		Day	Month	Year	To:		Day	Month	Year
		01 ▼	01 ▼	2010 ▼			31 ▼	01 ▼	2010 ▼
				2008					
				2009					
				2010					
					Display		Download		Reset

- (a) (i) In the web page above, how can the use of drop-down lists help with data input?

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- (ii) There should be two validation rules for checking the input data. Give two different sets of **invalid** data to illustrate the need for the rules.

<u>Set 1</u>	Day	Month	Year	Day	Month	Year
From:	<input type="text"/>	<input type="text"/>	<input type="text"/>	To:	<input type="text"/>	<input type="text"/>
<u>Set 2</u>	Day	Month	Year	Day	Month	Year
From:	<input type="text"/>	<input type="text"/>	<input type="text"/>	To:	<input type="text"/>	<input type="text"/>

(3 marks)

The readings of air pollutants, P1, P2 and P3, are collected every 6 hours. Peter downloads the data collected at Shatin and Kwun Tong in January 2010 and stores them in two worksheets of a spreadsheet file, *Sheet1* and *Sheet2*, respectively. *Sheet1* is shown below.

	A	B	C	D	E	F	G
1			<b>Time</b>				
2	<b>Date</b>	<b>Pollutant</b>	<b>00 00</b>	<b>06 00</b>	<b>12 00</b>	<b>18 00</b>	<b>Average</b>
3	1-1-2010	P1	14	12	11	9	
4	1-1-2010	P2	116	103	102	78	
5	1-1-2010	P3	28	20	21	29	
6	2-1-2010	P1	25	18	18	26	
7	2-1-2010	P2	87	90	86	63	
8	2-1-2010	P3	10	9	9	2	
9	3-1-2010	P1	86	83	83	7	
⋮	⋮	⋮	⋮	⋮	⋮	⋮	
94	31-1-2010	P2	37	15	7	82	
95	31-1-2010	P3	4	6	12	3	
96							
97						P1 average:	

(b) Peter wants to find the average reading of P1 at Shatin in January 2010.

- (i) To find the daily average readings of the pollutants everyday, a formula is entered into G3 and is then copied into G4 to G95. Write the formula in G3.

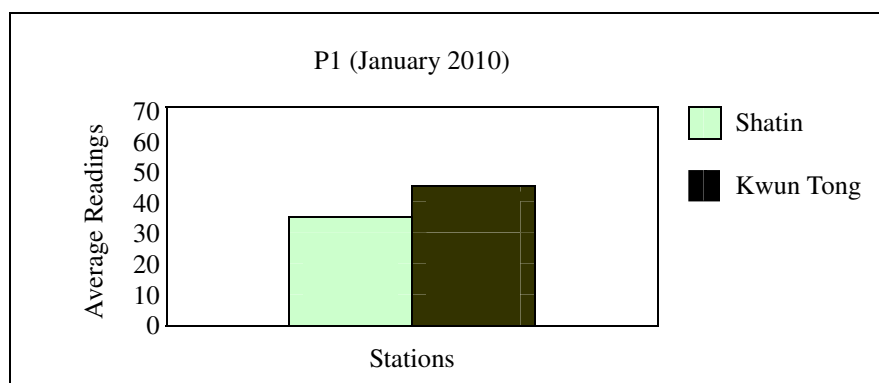
(ii) Write the formula in G97 to find the average reading of P1 at Shatin in January 2010.

(4 marks)

Answers written in the margins will not be marked.

- (c) The same steps in (b) have also been applied to *Sheet2* for the data collected at Kwun Tong.

Peter creates the following chart to show the average readings of P1 at Shatin and at Kwun Tong in January 2010.



- (i) Describe, with major steps, how to create the chart.

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- (ii) Peter copies the chart into his presentation file. Afterwards he updates some readings of P1 on *Sheet1*. Will the chart in the presentation file change accordingly? Explain briefly.

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(5 marks)

**END OF PAPER**

Answers written in the margins will not be marked.

## Reserved Words and Functions

### Database (SQL commands – based on SQL–92 Standard)

Constants	FALSE, TRUE
Operators	+, -, *, /, >, <, =, >=, <=, <>, %, _ , ' , AND, NOT, OR
SQL	ABSOLUTE (ABS), AVG, INT, MAX, MIN, SUM, COUNT ASC, AT, CHAR (CHR), CHAR_LENGTH (LEN), LOWER, TRIM, SPACE, SUBSTRING (SUBSTR/MID), UPPER, VALUE (VAL) DATE, DAY, MONTH, YEAR ADD, ALL, ALTER, ANY, AS, ASC, BETWEEN, BY, CREATE, DELETE, DESC, DISTINCT, DROP, EXISTS, FROM, GROUP, HAVING, IN, INDEX, INNER JOIN, INSERT, INTEGER, INTERSECT, INTO, LEFT [OUTER] JOIN, LIKE, MINUS, NULL, RIGHT [OUTER] JOIN, FULL [OUTER] JOIN, ON, ORDER, SELECT, SET, TABLE, TO, UNION, UNIQUE, UPDATE, VALUES, VIEW, WHERE

### Electronic Spreadsheet

Constants	TRUE, FALSE
Operators	+, -, *, /, <, >, =, <>, <=, >=
Functions	ABS, INT, MOD, QUOTIENT, RAND, ROUND, ROUNDUP, ROUNDDOWN, SQRT, TRUNC, AND, NOT, OR CHAR, CODE, CONCATENATE, EXACT, ISBLANK, LEFT, LEN, LOWER, MID, PROPER, RIGHT, TEXT, TRIM, UPPER, VALUE AVERAGE, COUNT, COUNTA, COUNTBLANK, COUNTIF, LARGE, MAX, MIN, RANK, SMALL, SUM, SUMIF, SUMPRODUCT, SUMSQ, FREQUENCY DATE, NOW FIND, HLOOKUP, VLOOKUP, LOOKUP, SEARCH, CHOOSE IF