

99 – Information & Communication Technology

Instructions to Mark Question Paper I

1. Get the template prepared for marking certified by the chief examiner.
2. Check the answer script first, and cross out all options of the question of which either more than one option is marked or not marked.
3. Mark either correct or incorrect on the question number itself.
4. DO NOT indicate correct or incorrect (✓, x) marks on the candidate's answer.
5. Cut a window over the question numbers' column on the template, and mark correct / incorrect on the same column.
6. Be careful about the alignment of the template and the answer script during marking.
7. Count down the correct answers along each column and indicate under the same and then get the grand total of the correct answers (xx/40) and write it in the cage given in right.
8. Be careful when adding up marks and writing it down in the second question paper.
9. Accept when the candidate has marked the answers by underlining the options or marked in the question paper itself without using the answer script.

Paper I - Marking Scheme

Question	Answer	Question	Answer	Question	Answer	Question	Answer
1.	1	11.	2	21.	1	31.	2
2.	1	12.	2	22.	3/4	32.	1
3.	2	13.	3	23.	1	33.	2
4.	4	14.	2	24.	3	34.	4
5.	4	15.	3	25.	2	35.	3
6.	1	16.	3	26.	3	36.	3
7.	1	17.	2	27.	1	37.	2
8.	1	18.	4	28.	2	38.	2
9.	4	19.	2	29.	1	39.	3
10.	1	20.	3	30.	4	40.	1

Give 1 Mark for each correct answer. Total 40 marks (1×40)

[0.8 marks for each point. $0.8 \times 5 = 4$ marks]

- (iv) Use of computers will improve accuracy and efficiency.
Will standardize the work environment.
Can attract educated and skilled person to work places.
Easy to communicate, manage information and share knowledge.
Fraud and corruption can be minimized.
Computer Based Training can be used to train the work force.
By improving the work environment using ICT, productivity of workers can be improved.

End of Marking Scheme

1. (i) - Inputs to the System

Income Category	Expense Category	Other:
Salary	Transport – (Bus, Train, Taxi, Private vehicle, Motor bicycle)	Starting date of the month
Company Shares	Education	Ending date of the month
Properties	Public Utilities	Name of the persons
Bank Interest	Clothing	
Business	Entertainment	
Interest from money lend	Household Items	
Income from rent	Community Support / Social work	
	Religious work	
	Insurance	
	Security	
	Taxes	

Give 1 mark for each Input / Category

Five inputs – 5 marks

Note: 1. Most of the categories are expenses.

2. Do not expect students to write the input categories same as above.

e.g. Public utilities - Give marks if they write cost of Electricity/ Water/ Telephone. But do not consider Electricity bill, Water bill and Telephone bill as three separate inputs.

(ii) Sum of all expenses done under each category.

[2 marks]

Grand Total of the Category Sums.

[1 mark]

Saving of the month = Difference between the Total Income and the Grand Total of expenses

[1 mark]

(iii) The inputs will be entered time to time (not online) and the saving of the month will be calculated at the end of the month considering all the inputs done during the month.

[3 marks]

2.

(i) Word Processing Package. e.g. MS Word [0.8 marks]

* In addition to general features such as editing, printing etc. the main feature expected is mail merge. Letters can be generated automatically for each participant using Mail Merge facility [1.6 marks]

(ii) Spreadsheet (Workbook) Package. e.g. MS Excel [0.8 marks]

* It allows you to enter data and perform calculations easily and provides different analytical functions and facilitates a variety of charts. [1.6 marks]

(iii) Presentation Graphics Package. e.g. MS PowerPoint [0.8 marks]

* Possible to create attractive presentation slides with different animations, colors, sounds, pictures etc. [1.6 marks]

(iv) * Database Management Package. e.g. MS Access [0.8 marks]

1. To create necessary databases, maintain them and use data manipulation functions and queries to obtain required information. [1.6 marks]

(v) Web Browser Application software. e.g. MS Internet Explorer. [0.8 marks]

* To browse the different sites on the Web and use search engines to find required information. [1.6 marks]

* Has to be discussed.

3. (i) [5 marks]

Answer

- 1
- 2
- 3
- 4
- 5

Note:

- Explanation / Description not required
- If a portion of the answer is correct with a clear explanation give some appropriate marks.

E.g. In the first loop it displays 1
In the second loop it displays 2
In the third loop it displays 3

Give 2 marks

(ii) Set Average to 0
Get Name
Get marks for Subject1
Get marks for Subject2

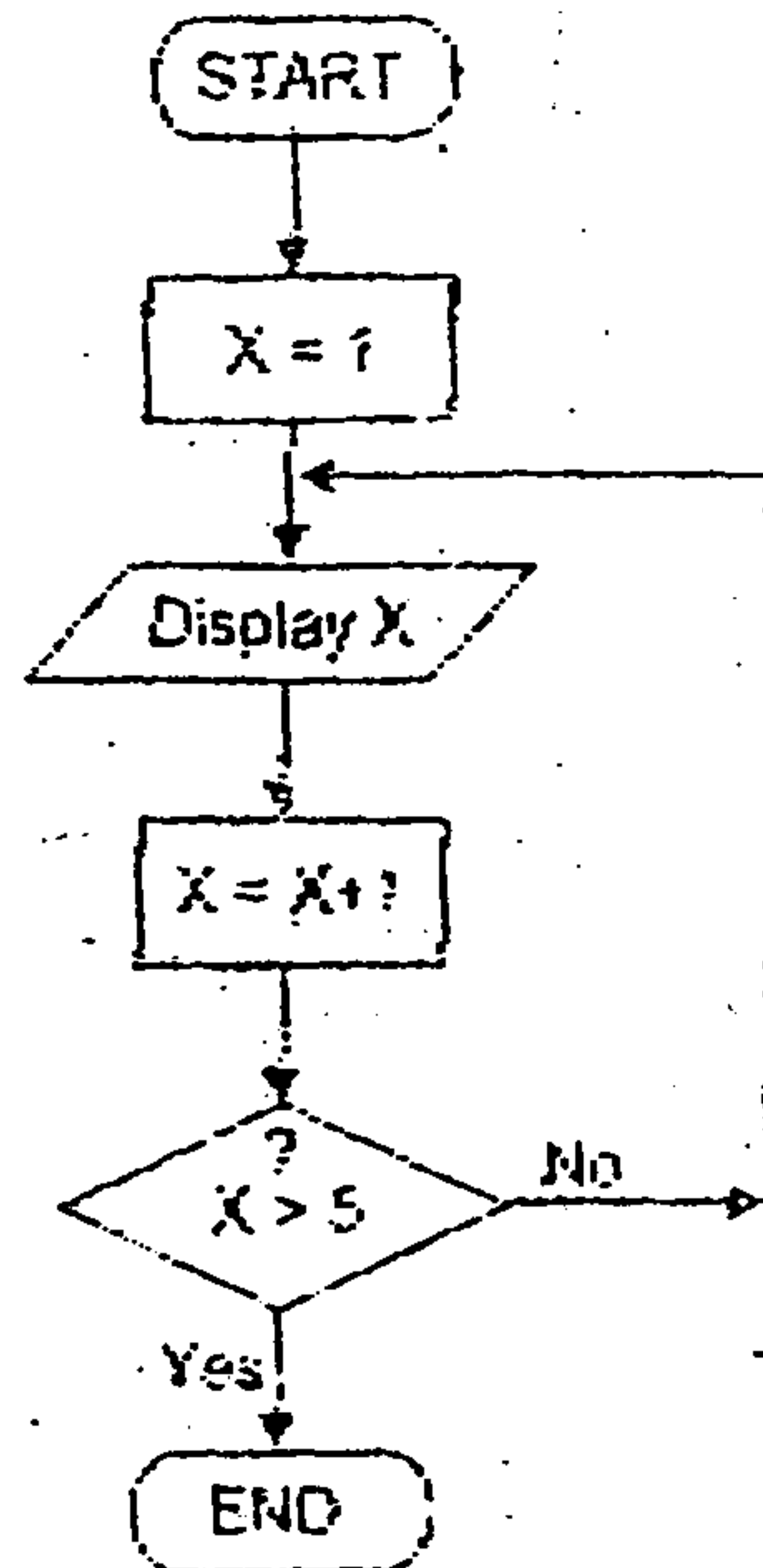
Average = (Subject1 + Subject2)/2
if (Average) >= 50 display Name, "Pass"
else display Name, "Fail"
end if

Answer

Name	Status
Arther	Pass
Berty	Pass
Charlie	Pass
David	Fail

Note:

- Explanation / Description not required. [7 marks]



Name	Subject1	Subject2
Arther	40	80
Berty	60	70
Charlie	40	60
David	30	50

	A	B	C	D	E	F
1	Item Description	Unit Cost	Quantity	Total Cost	Discount	Final Cost
2	Computer	Rs. 55,000	5	Rs. 275,000.00	10%	Rs. 247,500.00
3	Laser Printer	Rs. 35,000	2	Rs. 70,000.00	5%	Rs. 66,500.00
4	External MODEM	Rs. 3,500	4	Rs. 14,000.00	2%	Rs. 13,720.00
5	Scanner	Rs. 7,600	3	Rs. 22,800.00	4%	Rs. 21,888.00
6	Flat bed Plotter	Rs. 9,000	2	Rs. 18,000.00	5%	Rs. 17,100.00
7					Grand Total	Rs. 366,708.00

(i) (a) $=B2*C2$ [2 marks]

(b) $=D2 - D2*E2$ OR $=B2*C2 - B2*C2*E2$ [2 marks]

(c) $=SUM(F2:F6)$ OR $=F2+F3+F4+F5+F6$ [2 marks]

(ii) Need 3 advantages. [2 marks] for each advantage. [6 marks]

- Calculations are done automatically so that the changes / recalculations can be seen.
- Data analysis can be easily done
- Charts are possible
- Suitable for simple to complex calculations with a large number of data items
- Calculations can be done on a worksheet and hence it can be stored.
- Formulae can be copied.

Data are basic facts, figures or measurements which do not have an explicit meaning.

[0.5 marks]

Handling large volumes of data

1. Difficult to search or sort. (Patterns and correlations cannot be seen)
2. Duplications can occur (Redundancy)
3. Data will be insecure

[3 marks (1x3)]

others points that can be considered.

Data preservation is complicated

Data can be inconsistent

Difficult to process

Difficult to store

Loss of flexibility

Difficult to collect and record

Difficult to analyze

(iii) Database - An organized collection of data which are inter-related [1 mark]

How to overcome the above difficulties [1.5 marks (0.5x3)]

- Searching and sorting - Data Item can be given a Unique Identification key, so that identification and searching would be easy and automated
- Redundancy - Data items can be kept in a centralized database and referred when required instead of repeating it in different places. Thus redundancy can be controlled.
- Security - A database can be protected by using passwords or different user accounts.

(iv) Database Management System [1 mark]

e.g. Microsoft Access, MySQL, Oracle [1 mark (0.5+0.5)]

(v)

NIC	Name	Address	Telephone	Qualifications
674334357V	Samantha Athukorale	Alen street, Colombo	0112 723451	B.Sc
503426324V	Rishi Perera	Dhamapala Mawatha, Kandy	8122 492357	Diploma in Education

[fields 2 marks + each record 1 mark (1x2) - Total 4]

6.

- (i) Conducting interviews with the librarian, the staff and the users.
 Gathering Information by questionnaires - from both library staff and users.
 Getting information by referring to library regulations, procedures, Minutes of meeting / reports produced by Library etc.
 Observations. [1 mark for each method. (1x3) = 3 marks]
 Brainstorming.
 Visiting other similar web sites.

- (ii) Some Information about Librarian and staff - Posts, names, contact numbers
 Book Details
 Borrowing/ returning / reservation/ extending information
 Rules and Procedures
 Library hours and year calendar
 Information on services provided [0.6 marks for each item. (0.6x5) = 3 marks]
 Latest news and events
 Last update
 Online help
 Frequently Asked Questions

- (iii) Ability to search/ reserve a book via the internet [1 mark for each. (1x3) = 3 marks]
 Get/ renew membership via the Internet
 Get required information quickly and accurately
 Calculation of fines for overdue items

- New arrivals can be published
- Special notices can be displayed.
- Library services can be made efficient
- Hyperlinks to other relevant information sources can be made available
- Can track a status of a book efficiently
- Member details can be recorded/ retrieved online.
- Summary reports can be viewed online.
- Library activities can be done with less staff

[1 mark for each. (1x3) = 3 marks]

Select three parts only – 12 marks

- Easy to organize notes, documents. [0.8 marks for each point. 0.8x5 = 4 marks]
- Can maintain personal schedules and timetables.
- Can learn by e-books, CAL materials, Multimedia contents.
- Can find notes/ subject materials in the web (provided that Internet facility is available)
- Explorative learning.
- Students can learn at his own pace.
- Learning is possible any time any where.
- Discussion forums through networks.

- Faster and reliable than traditional mail (post). [0.8 marks for each point. 0.8x5 = 4 marks]
- Can be sent / receive from any where in the world.
- Easy to maintain.
- Multimedia attachments can be sent.
- Since it is an electronic medium, editing, publishing, copying and encrypting will be easy.
- Keeping records of replies is easy.
- Once the Internet facility is available email incurs less cost.
- Email is effective in forwarding a mail to the right person in an organization.
- Multiple copies of the same mail can be sent to different people with blind copies.

- Need to depend on Internet service providers [0.8 marks for each point. 0.8x5 = 4 marks]
- Can be costly in some areas and need a computer.
- Difficult to find the right / relevant information, as search engines provide millions of web sites that match with the requested information. (Looking for a needle in a haystack)
- Information available is not always reliable and consistent.
- Can be a paradise for hackers.
- Viruses, spams etc. can easily spread through.
- No control over Illegal stuff, adult materials, pornography etc.
- Users can get addicted easily.
- Illegal activities such as credit card frauds are possible.



PAST PAPERS
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