<table>
<thead>
<tr>
<th>Question No.</th>
<th>Candidate’s Answer</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>2 (i)</td>
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<td>12 (i)</td>
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<td>16</td>
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<tr>
<td>(ii)</td>
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<td>17</td>
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<tr>
<td>13 X</td>
<td></td>
<td>18</td>
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<tr>
<td>Y</td>
<td></td>
<td>19</td>
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<td>14</td>
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<td>15 a)</td>
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<td>b)</td>
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<td>17 a)</td>
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<td>b)</td>
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<td>25</td>
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<td>18</td>
<td></td>
<td>26</td>
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<td>19 a)</td>
<td></td>
<td>27</td>
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<tr>
<td>b)</td>
<td></td>
<td>28</td>
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<td>20 a)</td>
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<td>29</td>
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<td>b)</td>
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<td>30</td>
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<td>21</td>
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<td>31</td>
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<tr>
<td>22</td>
<td></td>
<td>32</td>
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<td>23</td>
<td></td>
<td>33</td>
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<tr>
<td>24 a)</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>
Answer all the questions. Write your answers in the spaces provided in Answer Sheet. Each answer carries one mark.

1. Study the statement below carefully.

“Production was slow because everything was done manually and totally depended on human labour.”

Statement 1

Statement 1 above is regarding to _________________ systems.

2. Statement below is about controversial issue.

Azman is a Muslim. One day, he received a “spam” e-mail stating that his favourite drink “Power-B” uses non-halal food colouring, but he does not know if the source of the content is credible or true. He decides to forward the e-mail to 50 of his friends.

Statement 2

Based on Statement 2 above,

(i) Azman has convicted _________________

(ii) List another effect of controversial content

3. Figure 1 shows the examples of input and output devices.

Based on Figure 1, write A, B or C to indicate the input device used for audio.
4. Based on Table 1 above, identify the types of storage for:
   a) A
   b) B

5. Write TRUE or FALSE for the following statement:
   a) A computer that operates at 933 MHz (megahertz) has 933 million clock cycles in one second (hertz)

6. Figure 2 shows three displays of operating system user interfaces

   ![Figure 2](image)

   Table 2 below shows the statement is about an interface of OS

<table>
<thead>
<tr>
<th>User do not need to memorise all the syntax to issue command</th>
<th>Easy to use</th>
<th>User friendly</th>
<th>Take a short time to learn</th>
<th>Make use of graphical capability</th>
</tr>
</thead>
</table>

   Match X, Y or Z in Figure 2 with the statement in Table 2.

7. The functions of operating system are
   I. Providing user interface
   II. Configuration device
   III. Managing memory
   IV. Managing data

   A. I, II, III
   B. I, III, IV
   C. I, II, IV
   D. I, II, III, IV
8. Read the statements below carefully.

| A | This network architecture allows the network to centralise functions and applications in one or more dedicated file servers. The server is the heart of the system |
| B | Each node in this network directly connect to two neighbouring nodes or normally connect in loop to enable data and resource exchange |

**Statement 3**

Based on Statement 3 above, identify

a) A  
b) B

9. Figure 3 below shows a networking device

![Figure 3](image)

Identify the device in Figure 3.

10. Figure 4 shows wired transmission medium.

![Figure 4](image)

By using W, X, Y and Z in Figure 4, identify the following transmission medium.

a) Fibre – optic cable  
b) Shielded Twisted Pair
11. There are various of client software in networking. State a function of web browser.

12. Based on Table 3, match the software with the following statement by writing P, Q, R or S

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Sonic Sound Forge</td>
</tr>
<tr>
<td>Q</td>
<td>Adobe Flash</td>
</tr>
<tr>
<td>R</td>
<td>Notepad</td>
</tr>
<tr>
<td>S</td>
<td>Window Movie Maker</td>
</tr>
</tbody>
</table>

*Table 3*

i. This software is for editing animation.
ii. This software is for editing audio.

13. The Figure 5 below shows the multimedia production phases chart.

Based on the chart above, name X and Y

14. ______________ is one of the user interface principles which means users can move around the menus, help files or other screens in a system.
15. Figure 6 shows the types of authoring tool concept

**Figure 6**

Based on Figure 6, identify:
(a) X
(b) Y

16. These programming languages are more abstract, easier to use, and more portable across platforms.

**Statement 4**

State the level of programming language mentioned in Statement 4.

17. Table 4 shows types of control structure.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Selection control structure</td>
</tr>
<tr>
<td>B</td>
<td>Repetition control structure</td>
</tr>
<tr>
<td>C</td>
<td>Sequence control structure</td>
</tr>
<tr>
<td>D</td>
<td>Consecutive control structure</td>
</tr>
</tbody>
</table>

**Table 4**

Match A, B, C, and D in Table 4 with the following statements:

a) Enables the programmer to assign different events for different situations. Programmers can use it to implement decision making process.

b) Executes statements one by one in linear or consecutive order

18. Which of the following are done during the documentation phase in program development phase?

A. Johan interviews his client to find out the client needs.
B. Johan writes a report that consists of all the descriptions of the program, source code and maintenances.
C. Johan test the program for any error.
D. Johan corrects the program source code
19. Figure 7 shows part of the code used during a program execution

```vbnet
Private Sub cmdCalculate_Click()
    Dim radius As Double, area As Double
    Const pie = 3.142
    radius = txtWeight.Text
    area = pie * radius * radius
    lblDisplay.Caption = MsgBox("The area of circle is" & FormatNumber(area, 2))
End Sub
```

Figure 7

Based on Figure 7, answer the following questions:

(a) State one constant.
(b) State one variable

20. State whether the following statements is TRUE or FALSE

a) Boolean data types consists either a True or False value. Programmers usually use it to store status.

b) Logical operators are notations that tell the computer to perform logical operations. Examples of logical operation are Plus, Minus, Multiply and Divide.

21. ____________ language programmers write instructions using mnemonic instruction codes.

A. Natural  
B. Machine  
C. Assembly  
D. Procedural

22. Figure 8 shows an interface of an automated library system of SMK High Tech

Figure 8

Which field is the primary key?
23. List one or more records using certain condition

Statement 5

Statement 5 represents the usage of ____________ in data manipulation

A. Modify
B. Filter
C. Update
D. Sort

24. Match the information system in column X with statements in column Y

<table>
<thead>
<tr>
<th>Column X</th>
<th>Column Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>A  Transaction Processing System</td>
<td>I software package that consists of the basic structure used to find answers to questions.</td>
</tr>
<tr>
<td>B  Executive Information System</td>
<td>II The system that concerned with how decisions affect an entire organization.</td>
</tr>
<tr>
<td></td>
<td>III Collect, store, modify and retrieve the transactions of an organization.</td>
</tr>
<tr>
<td></td>
<td>IV supports managers in non routine decision-making tasks</td>
</tr>
<tr>
<td></td>
<td>V set of formal business systems designed to provide information for an organization</td>
</tr>
</tbody>
</table>

25. Figure 9 shows six phases in developing a system

Based on Figure 9, name Phase Z

Figure 9
Section B
Bahagian B

[ 20 marks ]
[ 20 markah ]

This section consists of five questions. Answer all questions in booklet provided.
Bahagian ini mengandungi 5 soalan. Jawab semua soalan dalam buku jawapan yang dibekalkan.

26. Julia has purchased a commercial application software and she uploads the software to her web site for others to download it.
Julia telah membeli perisian aplikasi komersil dan dia telah memuat naik perisian itu ke laman webnya bagi membolehkan orang lain memuat turunnya.

27. Based on Table 3:
Berdasarkan Jadual 3:

<table>
<thead>
<tr>
<th>Type of Software</th>
<th>Example of Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Proprietary software Perisian Hakmilik</td>
</tr>
<tr>
<td>B</td>
<td>X</td>
</tr>
<tr>
<td>C</td>
<td>Proprietary software Perisian Hakmilik</td>
</tr>
</tbody>
</table>

Table 3
Jadual 3

a) Who has committed in computer crime? State the type of computer crime he/she has committed. Justify you answer. [ 2 marks ]

b) State two reasons why do we need Cyber Law. [ 2 marks ]
Berikan dua alasan mengapa kita memerlukan Undang-undang Siber.
(a) State TWO advantages of using software X.

Nyatakan DUA kelebihan menggunakan perisian X [2 marks]

(b) State TWO differences between proprietary and software X.

Nyatakan DUA perbezaan di antara perisian hak milik dan perisian X. [2 marks]

28. Table 14 shows type of network communication technology used by Tanaka Bank and Guard Co. accordingly.

<table>
<thead>
<tr>
<th>Network Communication Technology for Tanaka Bank</th>
<th>Network Communication Technology for Guard Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teknologi Komunikasi Rangkaian untuk Bank Tanaka</strong></td>
<td><strong>Teknologi Komunikasi Rangkaian untuk Guard Co.</strong></td>
</tr>
<tr>
<td>Tanaka Bank has a private network called TanaBNet. This network is secured with network security measures. It is only accessible to authorised users, including the bank employees and its clients. <strong>Bank Tanaka mempunyai rangkaian tersendiri dikenali sebagai TanaBNet. Rangkaian ini dilengkapi dengan ciri-ciri keselamatan rangkaian. Ia hanya boleh digunakan oleh pengguna yang berdaftar, termasuk pekerja dan pelanggan bank.</strong></td>
<td>Guard Co. has another private secured network to share information among its departments. It is called GuCoNet. It authenticates its users before they can use it. GuCoNet allows only employees of the company to access its information. <strong>Guard Co mempunyai rangkaian keselamatan sendiri bagi berkongsi maklumat antara jabatan-jabatannya. Ia dikenali sebagai GuCoNet. Pengguna perlu disahkan sebelum dapat menggunakan. Hanya pekerja GuCoNet hanya dibenarkan mencapai maklumat dalam sistem itu.</strong></td>
</tr>
</tbody>
</table>

Based on the Table 14, answer the following questions.

Berdasarkan Jadual 14, jawab soalan – soalan berikut.

a) State the type of network communication technology used for

Nyatakan jenis teknologi rangkaian komunikasi yang digunakan bagi

i. TanaBNet
ii. GuCoNet

[2 marks]

b) Define the Internet.

Takrifkan Internet.

[2 marks]
29. Figure 18 shows two interface in a multimedia presentation.
   *Rajah 18 menunjukkan dua antara muka dalam persembahan multimedia.*

   ![Figure 18](image1.png)

   **Figure 18**  
   *Rajah 18*

   Based on Figure 18:
   *Berdasarkan Rajah 18:*

   (a) Explain the interface principle used.  
   *Terangkan prinsip antaramuka yang digunakan.*  
   [2 marks]

   (b) Explain one other user interface principle.  
   *Terangkan satu prinsip antaramuka yang lain.*  
   [2 marks]

30. Figure 11, shows types of programming approach.
    *Rajah 11, menunjukkan jenis-jenis pendekatan pengaturcaraan.*

   ![Diagram](image2.png)
Based on Figure 11,
*Berdasarkan Rajah 11,*

(a) Name the programming approach for:
*Namakan pendekatan pengaturcaraan bagi:*

(i) Figure 11 (i):
*Rajah 11 (i):* [2 marks]

(ii) Figure 11 (ii):
*Rajah 11 (ii):*

(b) State the differences of approach between the answer in (a)(i) and a(ii).
*Nyatakan perbezaan diantara jawapan dalam (a)(i) dan (a)(ii).* [2 marks]
Figure 15 shows the part of Y phase of the project set up to produce a multimedia application in the form of non-linear interactivity.

Rajah 15 menunjukkan sebahagian daripada fasa Y yang disediakan untuk menghasilkan satu projek aplikasi multimedia yang berbentuk interaktiviti tidak linear.

<table>
<thead>
<tr>
<th>Tajuk Projek</th>
<th>Year 1Matematik Tahun 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objektif</td>
<td>Based on Figure 15, year 1 students in the learning of a simple mathematical operations involving adding, minus, multiply and divide numbers between 0 and 9. Menghasilkan satu aplikasi multimedia untuk murid-murid tahun 1 dalam pembelajaran matematik mudah melibatkan operasi menambah, menolak, mendarab dan membagi nombor-nombor di antara 0 hingga 9.</td>
</tr>
<tr>
<td>Sasaran</td>
<td>Students Murid Tahun</td>
</tr>
</tbody>
</table>

a) i) Name Y phase  
Namakan fasa Y

ii) Based on your answer in (a) (i) specify a method used to identify problem and needs in developing multimedia application  
Berdasarkan jawapan pada (a) (i), nyatakan satu kaedah yang digunakan untuk mengenalpasti masalah dan keperluan dalam membangunkan aplikasi multimedia tersebut.  

[2 mark]

b) Draw a storyboard for the first contains the project title and two element of multimedia graphics and audio.  
Lakarkan satu papan cerita untuk halaman pertama yang mengandungi tajuk projek dan 2 elemen multimedia iaitu grafik dan audio.  

[5 mark]
Figure 11 shows an input form of a car rental company.
Rajah 11 menunjukkan borang input bagi sebuah syarikat kereta sewa.

Based on figure 11
Berdasarkan rajah 11
a) Create two tables to store the data and show the relationship between the two tables.
Cipta dua jadual untuk menyimpan data di atas dan tunjukkan hubungan di antara ke dua-dua jadual tersebut.

b) Design a query to show the Customer Name and License No for those who rent ‘NISSAN’.
Reka satu kuiri untuk menunjukkan ‘Customer Name’ dan ‘License No’ bagi mereka yang menyewa ‘NISSAN’
As an ICT student, Abu is asked to develop a program to calculate the price of bus ticket for several destinations in a special promotion during the school holidays. Here is the algorithm:

Sebagai pelajar ICT, Abu diminta membangunkan aturcara yang dapat mengira harga tiket bas sempena promosi istimewa untuk pelbagai destinasi sepanjang cuti sekolah. Algorithma aturcata tersebut adalah seperti berikut:

```
Begin

Read Destination
Read Ticket price
Read number of adult
Read number of children
  If passenger buy more than three tickets or a
    membership card holder
    Give 10% discount
    Calculate a ticket price for adult
    Calculate a ticket price for children
    Calculate the amount of the tickets
    Calculate and display the total price after discount
  Else
    No discount given
    Calculate the ticket price for adult
    Calculate the ticket price for children
    Calculate the amount of the tickets
    Calculate and display the total price without discount

End
```

(a) Determine two data types used in the program. [2 marks]

Tentukan dua jenis data yang digunakan di dalam aturcara.. [2 markah]

(b) (i) State two types of operators used in the program above. [2 marks]

Nyatakan dua jenis operator yang digunakan dalam aturcara di atas [2markah]

(ii) Explain the differences between operators in answer (b)(i). [3 marks]

Terangkan perbezaan di antara operator dalam jawapan (b)(i). [3 markah]

END OF QUESTION

Kertas soalan tamat
Marking Scheme ICT 2\textsuperscript{nd} Trial SPM 2013

1. Non-computerized
2. (i) Slander
   ii. Pornography
3. B
4. (a) RAM / Primary storage (must be capital)
   ii. Flash memory (\textit{don't accept if the brand of any flash memory}) / secondary storage / CD-RW / HDD
5. True
6. Z
7. A
8. Client/Server or Client-server
   ii. Ring
9. Wireless Network Interface Card (WNIC)
10. a) Y
    ii. W
11. (i) Enable users to display and interact with HTML documents hosted by web servers or held in a file system.
    ii. Enable user to surf internet
12. (i) Q
    ii. P
13. X-implementation, Y – publishing
15. (i) icon concept
    ii. Card concept
16. High level programming language
17. a) A
    ii. C
18. B
19. (a) pie
    ii. radius / area
20. a) True (don't accept if T)
    ii. False (don't accept if F)
21. C
22. BookID
23. B
24. A) III
    ii. II
25. Documentation (phase)

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Section B

26. (a) Julia. Type of computer crime: **Copyright infringement (1 m)**
    Justification: (1 m)
    - The **commercial application software is copyrighted.** Julia is only buying a license to use the software, she does not own the software itself and therefore she is not entitled to redistribute it.

(b) - integrity and security information
    - legal status of online transactions
    - privacy and confidentiality of information
    - intellectual property rights
    - security of government data

any 2 answer – 2 m

27. (a) TWO advantages of using open source software are :
    i. User can free download from Internet because is free to use.
    ii. The original source code is provided so that the users can modify and enhanced the features of software.
    iii. And any relevant answers provided by students.

(b) TWO differences between proprietary and open source software

<table>
<thead>
<tr>
<th>Proprietary Software</th>
<th>Differences</th>
<th>Open Source Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>User must pay to get the software</td>
<td>Cost</td>
<td>User can get the software free of charge.</td>
</tr>
<tr>
<td>User cannot modify the software</td>
<td>Modification</td>
<td>User can modify the software.</td>
</tr>
<tr>
<td>User need to have a software license from vendor before install into computer</td>
<td>License</td>
<td>User does not need to have a software license before install into computer because it free software.</td>
</tr>
</tbody>
</table>

*Choose only two differences.*

28. (a) i. TanaBNet – Extranet (1m)
    ii. GuCoNet - Intranet (1m)

(b) Internet is a public network that provides information which connects millions of computer all over the world. (1m)
    Many organizations including private such as business, government agencies, educational institutions and individual connected to Internet.
    - (1m)

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http://fb.me/edu.joshuatly
29. (a) Consistency – interface design is in harmony and the same applies to all screen in a software program [2marks]

- NAVIGATION - Navigation means users can move around the menus, help files or other screens in a system

- SEARCH - Search means the system enables users to search keywords or glossary. The user interface should have a search function.

- LEARNABILITY - Learnability means the system provides support information and help files to make the system easy to understand.

- FLEXIBILITY - Flexibility means a user has the authority to navigate through all the sections without any limitations.

[2 marks for one answer- choose one]

30. (a) (i) Object Oriented/OOP

Berorientasikan Objek

(ii) Structured programming approach

Struktur

(b) Structured programming uses a top-down design model but the object-oriented programming approach uses objects.

Pengaturcaraan berstruktur menggunakan rekabentuk pengaturcaraan atas ke bawah manakala pengaturcaraan berorientasikan objek menggunakan objek.

31. a) i) fasal analisis/ analysis phases

ii )

<table>
<thead>
<tr>
<th>state a method used to identify problems and needs in developing multimedia applications. (1 mark)</th>
<th>Interview/temuramah/soa lselidik/pemerhatian/ observation</th>
</tr>
</thead>
</table>

b) draw a storyboard for first page that contains the project title and two elements of multimedia graphics and audio.

- ada laman kotak pepsicrita
- Project Title - Matematik Year 1 Matematik Tahun 1
  (mujuk tajuk yang telah didinyatakan dalam jadwal - selain dari itu tidak diterima)
- 2 elemen grafik dasa audio) selalaja - simbol atau perkataan diterima
- pautan - butang atau apa-apa simbol yang memperjukkan arah pautan (mesti ada pautan - berdasarkan pernyataan berikut : menghasilkan satu projek aplikasi multimedia yang berbentuk interaktif tidak linear')

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32. a) 

<table>
<thead>
<tr>
<th>CUSTOMER</th>
<th>SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Name</td>
<td>License No</td>
</tr>
<tr>
<td>License No</td>
<td>Rent Date</td>
</tr>
<tr>
<td>Driver Age</td>
<td>Return Date</td>
</tr>
<tr>
<td>Phone</td>
<td>Vehicle Type</td>
</tr>
<tr>
<td>Payment Type</td>
<td>Pick Up Location</td>
</tr>
<tr>
<td></td>
<td>Drop Off Location</td>
</tr>
</tbody>
</table>

[1 mark]

b) 

[1 mark] [1 mark] [2 mark]

33. 

(a) 
- String
- Integer
- Double

Any two answers.
Mena-mena dua jawapan.

(b) 

(i) Mathematical Operator
   - Operator Arimetik/Matematik
   - Logical Operator
   - Operator Logik

(ii) Mathematical operators perform mathematical operations such as plus or subtract but logical operators perform logical operations such as checking the condition of two Boolean values.

Operator matematik menjalankan operasi matematik
Seperti tambah atau tolak
manakala operator logik digunakan untuk membandingkan dua keadaan mengikut nilai Boolean.

Explanation on mathematical operators – 1 mark.
Penerangan untuk operator matematik – 1 markah.

Explanation on logical operator – 1 mark.
Penerangan untuk operator logik – 1 markah.

Examples of mathematical or logical operator – 1 mark maximum.
Contoh untuk operator matematik atau operator logik – maksima 1 markah.

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