01.

1. I. Calculate the binary equivalent of octal number \(253_8\) (show the steps clearly)
   II. Calculate the hexadecimal equivalent of binary number \(10101100_2\)

2. I. Write 2 applications of e-government.
   II. Write 2 applications of ICT in medical sector.

3. Construct the Boolean expression for above circuit.

4. Select and write the correct examples for below labels from brackets.
   A. name
   B. Uniform resource locater (URL)
   C. IP address
   D. Directory
5. Write 3 components of digital image
6. Write 2 services of cloud computing
7. This document is produced using Microsoft Word

<table>
<thead>
<tr>
<th>Before Formatting</th>
<th>After Formatting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Producing Antibiotics</strong></td>
<td><strong>Producing Antibiotics</strong></td>
</tr>
<tr>
<td>Chemicals produced in the body of a microbe to destroy or sabotage another micro-organism are known as antibiotics. Fungi and bacteria are used to produce antibiotics. Antibiotics can kill bacteria and fungi but they do not fight against infections caused by viruses. Although, antibiotics are not much harmful to human they can cause side effects if used without medical advice. penicillin amoxicillin tetracycline erythromycin are used against bacterial infections while Griseofulvin is used against fungi infections.</td>
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</tr>
</tbody>
</table>

Identify the tool/tools used for formatting for no.1 to 4 and write the number of the tool with it’s label/labels.
8. program whileloop;

    var
        number:integer;
    begin
        number := 1;
        while number <= 10 do
            begin
                writeln (number);
                number = number + 1;
            end;
    end;

Write the output of above pascal code

9. Copy the following grid to your answer paper and match A with B.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Software</td>
<td>Iterative method</td>
</tr>
<tr>
<td>Language Translators</td>
<td>GIMP</td>
</tr>
<tr>
<td>Operating System</td>
<td>Interpreter</td>
</tr>
<tr>
<td>System development models</td>
<td>MAC</td>
</tr>
</tbody>
</table>

10. Given figure is a picture of Graphic formatting software. Write the functions of A to D.
1. Name A, B, C and write down one example for each.

2. Write 3 utility programs in operating systems.

3. Write the classification based on the functionality of operating system with one example each.

4. Write 5 services performed by the operating system in the file management.

3. Student admission for A/L 2014-2017
   Sri Sumana Vidyalaya

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tbody>
<tr>
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<td>2015</td>
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<td>23</td>
<td>28</td>
<td>29</td>
<td></td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

1. In order to find the students intake for art section during 2014-2017, we write the following formula in F2 cell =function(cell1,cell2). Write the labels for function, cell1, cell2.

2. Write the formula for G2 cell.

3. Write the steps to copy the formula from F2 cell to F4 cell.

4. Suggest the suitable chart type for representing above data.
1. Write 2 primary keys with its’ tables.

2. Write one foreign key with its table.

3. What is the relationship between Products table and Sales table?

4. Mr. Gunarathna bought 2 TVs. So what is the field wanted to update? write down the updated record again.

5. ABC institute wants to design an information management system. Before developing the new system, a study is conducted on existing system and proposed system.
   1. Write five ways to identify the needs of the system.
   2. What are the functions to be performed in the planning phrase of system development
   3. After developing the system, it will be deployed using parallel deployment method. Write two advantages of above method.
   4. Briefly explain the importance of system maintenance.

6. Write down the functions of below items when performing operations in internet.
   1. I. web browser
      II. Domain Name System
      III. Web Server
      IV. File Transfer Protocol
2. There is a suggestion to get an internet connection to a school ICT Laboratory while they already have a computer network.

I. Write down 3 requirements which need to get the internet connection.
II. Suggest suitable guided media and network topology for data communication within the ICT laboratory. What are the reasons for above answers.
III. Describe the functions of Firewall when access the internet.

7.

I.

![Flowchart](image_url)

Write down the pseudo code for above flow chart.
2. XYZ Commercial institute agent’s monthly salary are calculated using following formula.

Final Salary = Salary + Discount

Discounts as follows:

- Sales above Rs.30,000/-, discount 30%
- Sales below Rs.30,000/-, discount 5%

Final Salary - FS
Discount - D
Sales Rate - SR
Write down suitable answers for A-F.