CCA-101: Fundamentals of IT & Programming

Assignment – 1

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Subject Code : CCA-101

Subject Name : Fundamentals of IT &

Programming

Q1: What are the four fundamental parts of computer? Explain it with the help of diagram.

The four fundamental parts of a computer are:

- 1. Input Unit Accepts data (e.g., keyboard, mouse)
- 2. Central Processing Unit (CPU) Processes data (ALU + CU)
- 3. Memory Unit Stores data
- 4. Output Unit Displays results

Diagram:

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[Input Unit] \rightarrow [CPU (ALU + CU)] \leftarrow \rightarrow [Memory] \rightarrow [Output Unit]
```

Q2: Classification of computers based on size and capacity.

- 1. Microcomputer Small, personal use
- 2. Mini Computer Multi-user, used in small organizations
- 3. Mainframe Computer Large, handles many users
- 4. Supercomputer Extremely fast, used for research

Q3: What is the meaning of computer generation? How many generations are defined?

Computer generation refers to the evolution of computers:

1st: Vacuum tubes

2nd: Transistors

3rd: ICs

4th: Microprocessors

5th: AI and future tech

Q4: Difference between Volatile & Non-Volatile Memory:

Volatile Memory: Loses data without power (e.g., RAM)

Non-Volatile Memory: Retains data (e.g., ROM, HDD)

Q5: System Software vs Application Software vs Open Source Software:

System Software – Controls hardware (e.g., OS)

Application Software – For users (e.g., MS Word)

Open Source – Free to modify (e.g., Linux)

Q6a: Steps to create a file in MS Word named "yourself":

- 1. Open MS Word
- 2. Type paragraph
- 3. File > Save As > yourself

Q6b: Steps to format text in MS Word:

Font style: Home > Font Style

Font size: Home > Font Size

Font color: Home > Font Color

Highlight: Home > Highlight tool

Q7: Create and save file 'ms_word':

- 1. Open MS Word
- 2. Type content
- 3. Save as ms_word

Q8: Create and save file 'equations':

- 1. Insert > Equation > Type formula
- 2. Save as equations

Q9: Convert text to table:

- 1. Highlight text
- 2. Insert > Table > Convert text to table
- 3. Save as text_to_table

Q10: Insert table in MS Word:

- 1. Insert > Table > Select size
- 2. Save file

Q11: Create Excel worksheet 'book1':

- 1. Open Excel
- 2. Enter data
- 3. Save as book1

Q12: Calculate in Excel:

Sum: AutoSum C2:C11

Average: =AVERAGE(C2:C11)

Max: =MAX(C2:C11)

Min: =MIN(C2:C11)

Q13a: Modify worksheet:

Column width: Right-click > Column Width

Row height: Right-click > Row Height

Delete: Right-click > Delete

Q13b: Excel terms:

Absolute: \$A\$1

Relative: A1

Cell address: B2

Q14a: Tools to customize PowerPoint:

Themes, Animations, Slide layouts, Master slide

Q14b: Create presentation:

- 1. Open PowerPoint > Blank
- 2. Save as Lab1.pptx
- 3. Title: College name
- 4. Subtitle: Your name
- 5. Add new slide

Q15: PowerPoint demo:

Title + bullet list

Insert Excel sheet

Clip art + text

Add slide effects

Q16: Machine vs High-Level Language:

Machine: Binary code

High-Level: English-like, easy

Q17: Data types in C:

int, float, char, double, void

Q18: Output of expressions:

- a) 33
- b) 24
- c) 16

Q19: Syntax of control statements:

if-else:

if () { } else { }

```
for:
for (init; cond; upd) {}
while:
while () {}
do-while:
do {} while ();

Q20: Output of code:
a) IMS Ghaziabad
b) IMS Ghaziabad (2 times)
```

c) Largest number is 100