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FOR GOD AND COUNTRY

ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

Selection Test Examination- 2019

Sub: Computer Application **Class: XI** **F.M.: 70**

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SOLUTION

GROUP A

[Multiple Choice Type Questions]

1. (i) (d) Third

(ii) (b) Register

(iii) (a) 10000

(iv) (a) 0.625

(v) (d) Both (a) & (b)

(vi) (a) C + AB

(vii) (b) Warm Booting

(viii) (a) MD

(ix) (b) Check Box

(x) (d) All of these

(xi) (a) Operating system

(xii) (d) Debug Menu

(xiii) (c) Functions

(xiv) (c) Superscript text

(xv) (a) Font scale

(xvi) (c) Spliting

(xvii) (c) Green

(xviii) (a) Shift Key

(xix) (b) 2

(xx) (a) 2

(xxi)(b) Laser Printer

GROUP B

2. (i) **EBCDIC:** Extended Binary Coded Decimal Interchange Code

OR,

ASCII: American Standard Code for Information Interchange

(ii) **Optical Disk:** It is made of polycarbonate plastic disk of 12 cm diameter and 1.2 mm thickness. Data is stored in a CD spirally from the centre of the disk to the circumference, in sectors.

OR,

Plotter: A plotter is a pen based output device that is attached to a computer for making vector graphics, that is, images created by a series of straight lines.

(iii) **Maxterm:** If the value of a variable is 1, then its complement is added otherwise the variable is added as it is.

(iv) **Distributive law:** X+YZ=(X+Y)(X+Z), X(Y+Z)= XY+XZ

OR,

X	Y	$\overline{X+Y}$	$\overline{X}\,\overline{Y}$
0	0	1	1
0	1	0	0
1	0	0	0
1	1	0	0

(v) AND operation:

X	Y	XY
0	0	0
0	1	0
1	0	0
1	1	1

(vi) MICR: Magnetic Ink Character Recognition/Reader

OR,

EPROM: Erasable and Programmable Read Only Memory

(vii) Linker: Linker is a system software that is used to combine or link two or more such object programs to produce the executable form of the final program.

(viii) Controls in VB: It has a Tool Box that consists of all the controls essential for developing a VB Application.

OR,

Check Box: Displays a True/False or Yes/No option.

Option button: Allows the user to select only one option even it displays multiple choices.

(ix) List Box: Displays a list of items from which a user can select one.

Picture Box: Displays icons/bitmaps and metafiles.

(x) Radix: The base or radix of a positional number system indicates the number of different digits that are present in the number system to represent the numbers. Example: For binary its 2.

(xi) Conditional Control statement: If Else.

OR,

Operators: In Visual Basic to compute inputs from users and to generate results, we need to use various mathematical operators. Example: Arithmetical Operators and Relational Operators.

(xii)Office Button: When we click the button, a menu appears. We can use the menu to create a new file, open an existing file, save a file and perform many other tasks.

OR,

Home Tab: This tab basically deals with the layout of a presentation and the various text formatting and editing options.

(xiii) Macro: Frequently used tasks can be automated by creating and running a special feature of Ms Office called Macros.

(xiv) Ribbon: In Microsoft Word 2007, we use the Ribbon to issue commands. The Ribbon is located near the top of the screen, below the Quick Access Toolbar.

Or,

Quick Access Toolbar: The Quick Access Toolbar provides us with access to commands we frequently use. Undo and Redo appear on the Quick Access Toolbar.

GROUP C

(3) (i) (a) Different Generation of computers: First, Second, Third, Fourth, Fifth .

Third Generation:

Advantages: Small, Affordable, Reliable and easy to use.

Easier to upgrade than previous generations.

Disadvantages: Manufacturing difficulty.

Air-Conditioning required.

(b) Analog Computer: Computations are performed using continuous variations of physical properties like electrical resistance, voltage, frequency etc.

Digital Computer: A digital device uses discrete electrical voltage levels to encode a real life situation or process.

(c) RAM: It is a form of temporary memory where the memory content is lost if power is switched off.

ROM: It is a form of permanent or non volatile memory where the contents are stored permanently.

OR,

(a) **CPU:** Central Processing Unit.

Describe: CU, ALU

(b) **Address bus:** The address bus connects the CPU and RAM and carries the memory addresses.

(c) **Impact printer:** Print head is operated electromechanically.

Non Impact Printer: Print head does not have an electromechanical device.

(ii) (a) Primary memory, Secondary memory, RAM(DRAM, SRAM), ROM (EPROM,EEPROM), Cache memory, Flash memory.

(b) Cache memory: It is also a type of volatile memory like RAM but is much faster than RAM. It functions in between the CPU and the Main memory i.e., the RAM.

(c) Bar code reader: A barcode reader is used to scan ready product information form product tables.

OR,

(a) Data: Represent the Raw material on which the computer works.

Information: These represent the processed raw material or data.

(b) EDVAC: Electronic Discrete Variable Automatic Computer.

UNIVAC: Universal Automatic Computer

(c) SRAM: Basic memory cell consists of several transistors only. Packing density is low.

DRAM: Basic memory cell consists of transistors and capacitor. Packing density is high.

(iii)(a) $(1000011)_2 - (1111100)_2 = -(111001)_2$

(b) $(2A5)_{16} + (67)_{16} = (30C)_{16}$

(c) Non positional: In this system various different symbols are used to represent the numbers.

Positional: The base indicates the number of different digits that are present in the number system to represent the number.

OR

(a) BCD: Binary coded decimal.

(b) $(.100101)_2 = (0.578125)_{10}$

(c) $(532)_6 = (242)_9$

(iv) (a) Σ (0,2,4,5,6)

(b) Commutative law and Associative Law.

(c) Rudiments of computer application: page P 1-2-9

OR,

(a) F= AE + EB+ BA

(b) SOP: Sum of Products

POS: Product of sums

(v) (a) CUI: Commands have to be typed in the command line to execute them.

GUI: One can point and click on icons to execute commands.

(b) Cold Booting: This type of booting is performed when the machine is started by turning on the power for the first time.

Warm Booting: This type of booting is done when the machine stops responding to the user. It can be done by pressing CTRL+ALT+DEL keys or by pressing the Reset Keys.

(c) Spooling: Simultaneous Peripheral Operations On-Line is a technique used to solve the problem of speed mismatch between the processor and peripheral devices like printers, keyboards etc.

OR,

(a) Functions of operating system:

Process management, Memory management, Device management, File management, User Interface, System sharing, Security Management, Error Detection and Correction.

(b) Compiler: The whole source code is translated before it is run. The compiler creates an object code that needs to be linked before it can be run.

Interpreter: The source code is translated a statement at a time. The translated program is run automatically after it is interpreted.

(c) Wild card characters id DOS: Two symbols called wildcards, allows the user in DOS to specify a group of files. The wild card character '*' indicates any group of characters while '?' indicates a single character.