

T.I. MATRICULATION HIGHER SECONDARY SCHOOL, AMBATTUR
HALF YEARLY EXAMINATION - 2018
Class XI Computer Science -Commerce Group Scoring Key

MARKS: 70

I Choose the best answer

15 x 1 = 15

1. _____ is an output device that is used to produce graphical output on paper using single color or multi color pens to draw pictures.
a) OCR b) **Plotter** c) Laser printer d) Dot matrix printer
2. $110101011_2 = ?_{10}, ?_{16}, ?_8?$
a) **$427_{10}, 1AB_{16}, 653_8$** b) $437_{10}, 11011_{16}, 653_8$ c) $420_{10}, 1B_{16}, 63_8$ d) $433_{10}, 1AB_{16}, 653_8$
3. To connect the hard disk drives and network connectors _____ port is used.
a) Parallel b) VGA connector c) PS/2 d) **SCSI**
4. The Linux operating system was originated in _____ as a project of _____, university student of Finland?
a) **1991, Linus Torvalds** b) 1989, Linus Torvalds
c) 1897, Dennis Ritchie d) 1821, Ken Thompson
5. _____ option found only on laptop computers puts the computer in a low power mode after saving all running programs and opens windows on the machine's hard drive for a quick restart.
a) Switch user b) Lock c) Sleep d) **Hibernate**
6. Ubuntu was conceived in 2004 by _____ a successful South African entrepreneur.
a) **Mark Shuttleworth** b) G Polya c) E W Dijkstra d) Edward Jenner
7. By clicking on _____ icon, document preparation application in Ubuntu could be opened
a) Libre Office Calc b) Libre Office Impress c) **Libre Office Writer** d) Trash
8. The opening screen of Open Office is called as _____
a) **Star Center** b) Office Center c) Draw Center d) Open Office Center
9. The two types of orientation are _____ and _____
a) Header, footer b) **Portrait, Landscape** c) A4, A5 d) None of the above
10. _____ is the shortcut for printing a document.
a) **Ctrl+P** b) Ctrl+R c) Ctrl+N d) Ctrl+T
11. _____ is the shortcut for the cut command.
a) Ctrl+C b) **Ctrl+X** c) Ctrl+V d) Ctrl+U

12. A formula in calc may begin with _____
 a) + b) - c) = d) @
13. Identify the default view in Impress.
 a) **Normal** b) Slide Sorter c) Handout d) Notes
14. _____ protocol transmits and the means to reliably transmit the message.
 a) Telnet b) FTP c) **TCP/IP** d) HTTP
15. _____ administers the domain name registration.
 a) ISDN b) DSL c) URL d) **ICANN**

II Answer(any 6) of the following(Note: Q.No. 22 is compulsory) 6 x 2=12

16. Write a note on retinal scanner.

Retinal Scanner: This *performs a retinal scan* which is a *biometric technique* that uses *unique patterns* on a *person's retinal blood vessels*. (4 x ½ =2)

17. Find 2's complement of -23₁₀

Binary equivalent 10111

8 bit form 00010111

1's complement 11101000

2's complement 11101001 (4 x ½ = 2)

18. List the different types of alignment with their icons and shortcuts.

Listing -1, shortcuts- ½ , Icons – ½

19. Define Operating system with 2 examples.

An Operating System (OS) is a *system software* which serves as an *interface between a user and a computer*. Any 2 examples (Definition: ½ + ½ Eg: ½ + ½)

20. List all the names of icons in Ubuntu OS.

Search your Computer, Files, Firefox Web browser, LibreOffice Writer, LibreOffice Calc , LibreOffice Impress , Ubuntu Software , Amazon , System Settings , Trash (First 5 icons – 1 m, Next 5 icons – 1m)

21. List out all the software packages available in Open Office.

- i. OpenOffice Writer - Word Processor to create text documents
- ii. • OpenOffice Calc - Spreadsheet to create worksheets
- iii. • OpenOffice Base - Database
- iv. • OpenOffice Impress - Presentation software
- v. • OpenOffice Draw - Drawing Software
- vi. • OpenOffice Formula - Create formula and equations

(First 4-each 1 mark, next 2 each ½ mark)

22. Write out the action, draw icons and shortcut key using different text formatting shortcuts.

OPERATION	ACTION	SHORTCUT KEY
BOLD	Makes the text bold	Ctrl + B
ITALICS	Italicizes the text	Ctrl + I
UNDERLINE	Underlines the text	Ctrl + U

Operation – ½ , Action – ½ , shortcut – ½ , icons – ½

23. How can we delete rows and columns in a table?(2 x 1 = 2)

- Place the insertion pointer in the row or column to be deleted and **right-click**.
- Choose **Row**→**Delete** to delete row or **Column**→**Delete** to delete a column.

24. List out the different types of software.

1) Application Software 2) System Software (2 x 1 = 2)

III Answer(any 6) of the following(Q.No. 32 is compulsory)

6 x 3=18

25. Write down the different methods of saving the worksheet.

- Step 1:**File → Save (or) Ctrl + S (or) Click “Save” icon on the standard tool bar.
- Step 2:** If the spreadsheet has not been saved previously, the Save As dialog box will appear.
- Step 3:** Type the name in “File Name” list box. OpenOffice Calc Spreadsheets are stored with extension .ods by default.
- Step 4:** Click “Save” button.(1st point ½ + ½ + ½ 2nd point - ½ , 3rd point – ½ , 4th point – ½)

26. How can we open a new presentation?

In order to open Impress using Start button, click Start button and select **All Programs** → **Open Office** → **OpenOffice Impress**.(2)

27. What is an intranet?

An Intranet is a **website** used by **organizations** to provide a place where employees **can access company information** (eg policies, procedures, staff, directory, department info), tools (quick links to common apps, forms etc.) **and collaborate them**(3)

28. What are hotspots?

Hotspots are **sites** that **offer Internet** access over a **wireless local area network** (WLAN) by way of a **router** that then connects to an **Internet service provider**.

Hotspots utilize *Wi-Fi technology*, which allows electronic devices to connect to the *Internet* or exchange data *wirelessly through radio waves*. Hotspots can be phone-based or free-standing, commercial or *free to the public*.(3)

29. Write a note on scanners.

Scanner: Scanners are used to *enter the information directly into the computer's memory*. This device works like a *Xerox machine*. The scanner *converts* any type of *printed or written information including photographs* into a *digital format*, which *can be manipulated* by the computer.(6 x ½ =3)

30. Write about a) Serial port b) Parallel port c) VGA connector

Serial Port: To connect the external devices, found in old computers.

Parallel Port: To connect the printers, found in old computers.

VGA Connector: To connect a monitor or any display device like LCD projector.(3x1= 3)

31. Write a note on FIFO process scheduling

FIFO (First In First Out)Scheduling: This algorithm is based on *queuing technique*. Technically, the process that *enters the queue first is executed first* by the CPU, followed by the next and so on. The processes are executed in the *order of the queue*.(3 x 1 = 3)

32. Convert 382_{10} into binary using Sum of Powers of 2 method.

101111110_2 (Only sum of powers method) (3)

33. List out the different disk drive icons.

(i) Hard disk (ii) CD-ROM/DVD Drive (iii) Pen drive (iv) Other removable storage such as mobile, smart phone, tablet etc., (v) Network drives

(All 5 – 3m, 4 – 2m, 3-1 ½ m, 2- 1 m, 1 – ½ m)

IV. Answer all the questions in detail

5 x 5 = 25

34. Explain in detail about a) Monitor (or) Touch screen

b) Ink jet printer (or) Bar code reader and QR code reader

(1) Monitor: Monitor is the most *commonly used output device* to display the information. It looks *like a TV*. Pictures on a monitor are formed with *picture elements called PIXELS*. Monitors may either be Monochrome which display text or images in *Black and White or can be color*, which display results in multiple colors. There are many types of monitors available such as *CRT (Cathode Ray Tube)*, *LCD (Liquid Crystal Display)* and *LED (Light Emitting Diodes)*. The monitor works with the *VGA (Video Graphics Array) card*. The *video graphics card* helps the keyboard

to communicate with the screen. It acts as an *interface between the computer and display* monitor. Usually the recent motherboards incorporate built-in video card.

The first computer monitor was part of the *Xerox Alto computer system*, which was released on March 1, 1973.

(OR)

Touch Screen: A touch screen is a *display device* that allows the user to interact with a computer *by using the finger*. It can be quite useful as an *alternative to a mouse or keyboard* for navigating a *Graphical User Interface (GUI)*. Touch screens are used on a wide *variety of devices* such as computers, laptops, monitors, smart phones, tablets, cash registers and information kiosks. Some touch screens use a *grid of infrared beams* to sense the presence of a finger instead of utilizing touch-sensitive input.

Inkjet Printers use *colour cartridges* which combined *Magenta, Yellow and Cyan inks* to create color tones. A *black cartridge* is also used for *monochrome output*. Inkjet printers work by *spraying ionised ink* at a sheet of paper. The speed of Inkjet printers generally range from *1-20 PPM* (Page Per Minute). They use the technology of *firing ink* by heating it so that it explodes towards the paper in bubbles or by using *piezoelectricity* in which tiny electric currents controlled by electronic circuits are used inside the printer *to spread ink in jet speed*. An Inkjet printer can spread *millions of dots of ink at the paper every single second*.

(OR)

Bar Code / QR Code Reader: A Bar code is a *pattern printed in lines of different thickness*. The Bar code reader *scans the information* on the bar codes *transmits to the Computer for further processing*. The system gives *fast and error free entry* of information into the computer. QR (Quick response) Code: The QR code is the *two dimension bar code* which can be *read by a camera* and processed to interpret the image (2 ½ + 2 ½)

(OR)

Do using signed binary arithmetic a) $25_{10}+39_{10}$ b) $73_{10}-54_{10}$.

a) 25

Conversion to binary – ½

8 bit form – ½

39

Conversion to binary – ½

8 bit form – ½

Addition – ½ Ans:1000000

b) 73

Conversion to binary – ½

8 bit form – ½

54

8 bit form – ½

2's complement - ½

Addition – ½ Ans:00010011

35. Explain in detail the different types of OS?

Single User Operating Systems

An operating system allows *only a single user* to perform a task at a time. It is called as a *Single user and single Task operating system*. For a user, a *task is a function* such as printing a document, writing a file to disk, editing a file or downloading a file etc. *MS-DOS* is an example for a single user and single task Operating System.

Multi-user Operating Systems

It is used in *computers and laptops* that allow same data and applications to be accessed by *multiple users at the same time*. The users *can also communicate with each other*. *Windows, Linux and UNIX* are examples for multi-user Operating System. (2 ½ + 2 ½)

(OR)

Write down all the features of Ubuntu.

- The desktop version of Ubuntu supports all normal software like Windows such as Firefox, Chrome, VLC, etc.
- It supports the office suite called LibreOffice.
- Ubuntu has in-built email software called Thunderbird, which gives the user access to email such as Exchange, Gmail, Hotmail, etc.
- There are free applications for users to view and edit photos, to manage and share videos.
- It is easy to find content on Ubuntu with the smart searching facility.
- The best feature is, it is a free operating system and is backed by a huge open source community. (First 4 features each 1 mark , the next 2 each ½ mark)

36. Explain in detail about paste special in Open office writer.

To use the paste special, select the text and apply move or copy, then at the destination location,

- Click *Edit* → *Paste Special* (or) press *Ctrl+Shift+V*, or *Alt+E+S* the Paste Special dialog box opens
- The Paste Special menu varies depending upon the origin and formatting of the text (or object) to be pasted.

- Select **DDE (Dynamic Data Exchange)** link from the Paste special dialog box.
- Select the type of applicatin and click on the **OK** button.
- The copied data is pasted into the document with a **link**. (5 x 1 = 5)

(OR)

How can we change the margins using page style dialog box?

1. **Right-click** anywhere on the page and select Page from the popup menu and select **page tab** of **page style dialog box**.
2. In the **Margins** boxes, specify the values for left , right , top and bottom margins.
3. Click on ok button.(2+2+1)

37. Explain in detail about multiple sorting and its steps.

Multi-sorting data

Step 1: Select **Data** → **Sort**

Step 2: Sort dialog box appears. (Refer Figure 7.67)

Step 3: Select the field name (Student name) in which you want to sort from the “sort by” dropdown list box and then choose order of sorting i.e. Ascending or Descending. Ascending is the default selection.

Step 4: Select another field name (Group Code) from the “Then by” dropdown list box and choose the order of sorting to this column.

Step 5: Click “OK” button.(5 x 1 = 5)

(OR)

Differentiate static and dynamic web pages.

Static Web Page

The content and layout of a web page is fixed

Static Web pages never use databases

Static web pages directly run on the browser and do not require any server side application program

Static Web pages are easy to develop

(2+1+1+1)

Dynamic Web Page

The content and layout may change during run time

Databases is used to generate dynamic content through queries

Dynamic web pages runs on the server side application programs and displays the results

Dynamic web page development requires programming skills

38. Convert 1101101_2 into decimal, hexadecimal and octal

Ans: $109_{10}, 6D_{10}, 155_{10}(2+2+1)$

(OR)

Explain in detail about RAM.

The main memory is otherwise called as **Random Access Memory**. This is available in computers in the form of Integrated Circuits (ICs). It is the place in a computer where the Operating System, Application Programs and the data in current use are kept temporarily so that they can be accessed by the computer's processor. The smallest unit of information that can be stored in the memory is called as a bit. The memory can be accessed by a collection of 8 bits which is called as a byte. The bytes are referred by 'B'. If a computer has 1 megabyte of memory, then it can store 10,48,576 bytes (or characters) of information. [Hence 1MB is 1024KB and 1 KB is 1024 Bytes, So $1024 \times 1024 = 10,48,576$ Bytes]

RAM is a volatile memory, which means that the information stored in it is not permanent. As soon as the power is turned off, whatever data that resides in RAM is lost. It allows both read and write operations.

Types of RAM

There are two basic types of RAM

- Dynamic RAM (DRAM)
- Static RAM (SRAM)

These two types differ in the technology they use to hold data. Dynamic RAM being a common type needs to be refreshed frequently. Static RAM needs to be refreshed less often, which makes it faster. Hence, Static RAM is more expensive than Dynamic RAM. (RAM-3, Types of RAM – 2 m)
