

Computer and Its Components

Theory : 05 Marks

Textbook Questions

A. Multiple choice questions

1. The collection of unprocessed facts, figures and symbols is known as _____.
(a) Information (b) Software (c) Data and Information (d) None of the above
Ans. (d) None of the above as the correct answer is data
2. _____ is the processed form of data which is organized meaningful and useful.
(a) Information (b) Software (c) Data (d) None of the above
Ans. (a) Information
3. Hardware is any part of the computer that has a physical structure that can be seen and touched.
(a) True (b) False (c) Not sure (d) None of the above
Ans. (a) True
4. Components of computer hardware are _____.
(a) Input devices and output devices (b) A system unit and storage devices
(c) Communication devices (d) All of the above
Ans. (d) All of the above
5. _____ devices accept data and instructions from the user.
(a) Output (b) Input (c) Components of hardware (d) Storage
Ans. (b) Input
6. Which disk is made up of a circular thin plastic jacket coated with magnetic material?
(a) Hard Disk (b) Compact Disk (c) DVD (d) Floppy Disk
Ans. (d) Floppy Disk
7. _____ disks are used to store more than 25 GB of data with a very high speed in less amount of time.
(a) Digital Versatile (b) Compact (c) Blue-Ray (d) None of the above
Ans. (c) Blue-Ray
8. Random Access Memory and Read Only Memory are examples of _____.
(a) Primary Memory (b) Secondary Memory
(c) Auxiliary Memory (d) Both primary and secondary memory
Ans. (a) Primary Memory
9. Which system uses only the digits 0 and 1?
(a) Bits (b) Binary number system (c) Secondary number system (d) Nibbles
Ans. (a) Bits
10. There are two primary types of softwares namely _____ and _____.
(a) General Purpose and tailor made
(b) Operating System and utility software
(c) Application Software and System Software
(d) None of the above
Ans. (c) Application Software and System Software
11. Gimp, Adobe Photoshop, Corel Draw, Picasa etc. are examples of _____ softwares.
Spreadsheets
(a) Word Processors (b) Desktop publishing (c) Presentation
Ans. (b) Desktop publishing
12. Which generation computers used high level languages such as FORTRAN and COBOL and also used transistors instead of vacuum tubes?
(a) I Generation (b) II Generation (c) III Generation (d) V Generation

Ans. (b) II Generation

13. IBM notebooks, Pentium PCs-Pentium 1/2/3/4/Dual core/Quad core, PARAM 10000 are examples of which generation of computers?

- (a) I Generation (b) IV Generation (c) III Generation (d) V Generation

Ans. (d) V Generation

14. According to the functioning of computers, they are divided into three categories namely _____, _____ and _____.

- (a) Mainframe, Supercomputer and Mini computer
(b) Analog, Digital and Hybrid
(c) Palmtop, PC and Desktop
(d) Micro-computers, Digital and Hybrid

Ans. (b) Analog, Digital and Hybrid

15. _____ is a cabling technology for transferring data to and from digital devices at high speeds.

- (a) S-Video Port (b) FireWire (c) Ethernet Port (d) PS/2 Port

Ans. (b) FireWire

16. _____ is used to connect the monitor to the computer which offers images at higher resolutions.

- (a) USB Port (b) Video Graphics Array (c) Parallel Port (d) None of the above

Ans. (b) Video Graphics Array

B. Answer the following questions

1. Explain the following terms

- (a) RAM (b) Nibble (c) Digital Computers (d) Ethernet Port

Ans.

(a) RAM: RAM is Random Access Memory which is a volatile memory and store the data randomly. The data is erased from RAM when the computer is switched off.

(b) Nibble is the smallest unit of memory which store 4 bits.

(c) Digital Computers: These computers deal with data in the form of numbers. They mainly operate by counting and performing arithmetic & logical operations on numeric data. Such computers are 'many problems' oriented.

(d) Ethernet Port: Ethernet Port is a port in computer to connect to wired network.

2. Name any two utility softwares.

Ans. Text Editors, Compression Utilities, Disk Fragmentation, Scan Disk, Encryption or Decryption

3. Why there is a need of Auxiliary Memory?

Ans. We need Auxiliary memory to store the data permanently even after switching off the computer. It is cheaper as compared to Primary memory.

4. Differentiate the following

- (a) Hardware vs Software
(b) RAM vs ROM
(c) Application Software vs System Software
(d) Digital vs Analog

Ans.

a)

Hardware	Software
1. It is any part of the computer that has a physical structure that can be seen and touched	1. Software is intangible i.e., that cannot be seen and touched
2. Example: Input/Output Device, Storage Device, CPU, Memory	2. Example: Application and System Software.

b)

RAM	ROM
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1. RAM is Random Access Memory	1. ROM is Read Only Memory
2. It is a volatile memory and its contents gets erased after the Machine is turned off.	2. It is permanently built into the computer at the time of production and its contents cannot be erased.

c)

Application Software	System Software
1. It includes programs that direct the computer to carry out specific tasks.	1. includes the programs that enable the computer's hardware to work with and run the application software
2. The two types of application software are General Purpose and Tailor Made or customized software.	2. The two types of system software are Operating System and Utility Software.
3. Example: MS Word, Tally	3. Example: Windows OS, Linux, Text Editor

d)

Digital	Analaog
1. These computers deal with data in the form of numbers	1. Analog computers process analog, i.e. continuously varying data like voltage, temperature etc.
2. Example: Personal Computer, Calculator, Laptop etc.	1. Example: Flight Computer in aircraft.

5. Explain the functions of operating systems .

Ans. The operating system, also referred to as the OS, is a computer program that manages all the other programs on your computer, stores files in an organized manner, and coordinates the use of the computer hardware such as the keyboard and mouse.

6. Explain in brief all the generations of computer .

Ans.

I Generation (1945 - 55) Bulky, vacuum based and costly, used assembly language

II Generation (1955 - 65) Smaller than vacuum based computers, but better performance-wise, used transistors instead of vacuum tubes.

III Generation (1965 - 75) Small Scale Integration and Medium Scale Integration technology were implemented in CPU, I/O processors etc. Faster processors with magnetic core memories that were later replaced by RAM and ROM.

IV Generation (1975 - 89) Microprocessors were introduced where complete processors and large section of main memory could be implemented in a single chip.

V Generation: 1989 to present Computers use extensive parallel processing, multiple pipelines, multiple processors etc.

7. Draw and explain IPO cycle .

Ans.

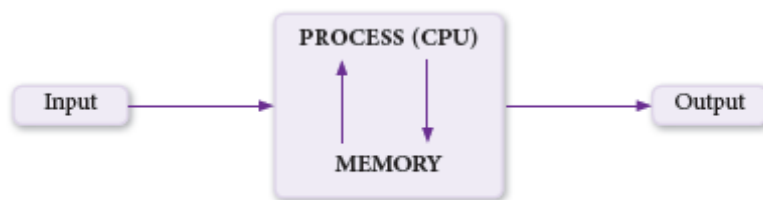


Diagram of a computer of IPO

8. Name any 4 application areas of computer .

Ans. Railways, Airlines, E-Business, E-Governance, E-Learning, Banking

9. How the computers are classified according to their processing capabilities .

Ans.

Micro-computers came into being with the invention of the micro-processor. They are not so expensive. The personal computer is a micro-computer.

Mini computers provide more power than micro computers in terms of speed and storage capacity. They are also less expensive. Their performance is also lower than that of mainframes.

Mainframe computers can also process data at very high speeds, but less than that of super computers. Normally, they are used in banking, airlines and railways etc. for their applications.

A supercomputer is the fastest type of computer. They are employed for specialized applications that require large amounts of mathematical calculations. Example: weather forecasting, climate research, molecular modelling

10. Differentiate between Ethernet Port and USB .

Ans.

Ethernet Port	USB
1. It is a port to connect to wired network	1. It is a port to connect to USB devices like printers, USB drives, External hard disk etc.
2. The computer comes with only one inbuilt Ethernet port	2. Computer have more than one USB ports to connect multiple USB devices at one time.

C. Lab Session

1. State whether the following statements are true or false

(a) The input device receives data in machine readable form - False

(b) The Arithmetic and Logic Unit and the Central Processing Unit are part of the Control Unit - False

(c) The plotter is an input device - False

(d) RAM and the ROM storage is effected by the presence of electricity. - False

2. Justify the statement 'Computers are used only to collect data for science and research' as either true or false.

Ans. False, as computers are used for many purpose besides science and research like Banking, E-Business, E-Learning etc.

3. Tanya is working on a project in her school. For the same, she wants to store multimedia information in a portable storage device. Her information is subject to change as per her needs. Which storage device would you recommend? Why?

Ans. It can be any storage device which is re-writable like USB drive, external hard disk, memory card or CD-RW etc.

4. Prem Das is an editor and is currently working in a popular News House group. His job includes writing stories and articles for his newspaper. For writing his documents, he uses WordPad and Notepad, but is facing problems with the formatting of the document. He is also not able to check the grammatical errors. Which type of software should he be using and why?

Ans. To write error free documents he can use word processor software like MS Word or Openoffice.org Writer

5. Mr. Shivank works in a multinational company. He often has to travel in and out of the country in order to complete his tasks. He wants to buy a computer that is portable and can be easily carried overseas. Which kind of computer should he buy to store his important information and data?

Ans. He can either buy a palmtop or laptop as they both are portable and easy to carry.

6. Where do you store the set of instructions that gets the computer ready to receive instructions? Discuss the different tasks performed by the OS.

Ans. ROM uses instructions stored in it to carry out a series of tasks automatically, before we can actually use the computer.

The different tasks performed by OS are:

1) manages all the other programs on your computer,

2) stores files in an organized manner,

3) coordinates the use of the computer hardware

7. 'Without prior knowledge, a user cannot interact with the computer'. Do you agree with this statement? Justify your answer.

Ans. No, by following the instructions on the screen one can operate computer.

Board Exam Questions – Previous Years / Sample Papers

1. Which of the following is not an input device?
i) Scanner ii) Microphone iii) Speaker iv) Trackball
Ans. iii) Speaker
2. _____ acts as the nerve centre that sends control signal to all other units.
i) Control Unit ii) Software iii) ALU iv) Memory
Ans. i) Control Unit
3. Random Access Memory and Read Only Memory are examples of _____.
i) Auxiliary Memory ii) Primary Memory iii) Secondary Memory iv) Both primary and secondary memory
Ans. ii) Primary Memory
4. GIMP, Adobe Photoshop, Corel Draw, and Picasa are examples of _____ softwares. i) Spreadsheets ii) Word Processors iii) Desktop publishing iv) Presentation
Ans. iii) Desktop publishing
5. What is the significance of System Software?
Ans.
System software includes the programs that enable the computer's hardware to work with and run the application software.
Or
System software is the interface between user, other programs and the computer's hardware.

Other Questions

- Q1. What is Data?
Ans. Data is a collection of unprocessed facts, figures, and symbols.
- Q2. What is information?
Ans. Information is a processed form of data. It is organized, meaningful, and useful.
- Q3. What is Hardware?
Ans. Hardware is any part of the computer that has a physical structure that can be seen and touched.
- Q4. What is software?
Ans. Software is the instruction set that tells the computer how to perform tasks. Software is intangible i.e., that cannot be seen and touched.
- Q5. Input devices, output devices, a system unit, storage devices, and communication devices are all components of _____.
Ans. Computer Hardware
- Q6. What are input devices? Explain with example.
Ans. Input devices are the devices that allow a user to enter data and instructions into a computer such as keyboard, mouse, microphone, scanner, trackball, joystick, graphics tablet and digital camera.
- Q7. What are the various functions of Input Devices?
Ans.
 1. They accept data and instructions from the user.
 2. They convert these instructions and data from human readable form to machine readable form.
 3. They supply the converted instructions and data to the CPU for further processing.
- Q8. What are output devices? Explain with example.
Ans. Output devices are used to display the result or information to the user through monitor or VDUs, LCDs, printers, plotters and speakers.

- Q9. What are the functions of output devices?
Ans. 1. It accepts the results produced by the computer which is in the coded form or machine readable form.
2. It converts these coded results into human readable form.
3. It supplies the converted results to the user.
- Q10. What are storage devices?
Ans. Storage devices are the devices which are used to retrieve from and save to the data and information such as hard drives, memory sticks (pen drives), compact discs, DVDs and tape drives.
- Q11. A _____ is made up of a circular thin plastic jacket coated with magnetic material. Its outer cover which is a hard plastic protects this plastic disk. It can hold 1.44 MB data.
Ans. Floppy disk.
- Q12. _____ is made up of a metal disk and coated with a metal oxide used to store bulk of data.
Ans. Hard Disk
- Q13. There are two types of CDs: _____ and _____.
Ans. CD-R (Compact Disk - Recordable) and CD-RW (Compact Disk - Rewriteable)
- Q14. _____ is an optical storage disc similar to CD-ROM, as this is double sided with dual layer disc and can hold 4.7 GB of data.
Ans. DVD (Digital Versatile Disc)
- Q15. _____ are used to store more than 25 GB of data with a very high speed in less amount of time.
Ans. Blue-Ray Disks
- Q16. A single layer of Blue-Ray Disk can store _____ hours of video where as double layer Blue-Ray Disk can store more than _____ hours of video.
Ans. 13 hours, 20 hours
- Q17. USB Stands for _____.
Ans. Universal Serial Bus.
- Q18. _____ is used in digital cameras, game consoles, mobile phones etc.
Ans. Memory Card or flash memory card
- Q19. The _____ is the box that protects the internal electronic components from damage
Ans. system unit
- Q20. System Unit contains _____ and _____.
Ans. It contains the central processing unit (CPU) and memory.
- Q21. The _____ interprets and carries out the basic instructions that operate the computer
Ans. CPU
- Q22. _____ is where data and instructions are held.
Ans. Memory
- Q23. The heart of the computer system is the _____.
Ans. processor unit or CPU

- Q24. CPU consists of _____ and _____
Ans. ALU (Arithmetic and Logic Unit) and CU (Control Unit)
- Q25. _____ executes most computer operations.
Ans. ALU
- Q26. _____ acts as the nerve centre that sends control signal to all other units.
Ans. Control Unit
- Q27. The control unit and ALU are usually many times _____ than other devices connected to a computer system.
Ans. Faster
- Q28. There are two categories of memory, _____ and _____.
Ans. primary memory and secondary memory
- Q29. _____ and _____ are both primary memory.
Ans. Random Access Memory (RAM) and Read Only Memory (ROM)
- Q30. _____ refers to memory that can be selected and used randomly.
Ans. RAM
- Q31. The information stored in _____ disappears the very moment the machine is turned off. It is also referred to as volatile memory.
Ans. RAM
- Q32. _____ is permanently built into the computer at the time of production
Ans. Read Only Memory
- Q33. _____ permanently stores a set of instructions which instructs the computer how to work.
Ans. ROM
- Q34. Memory, storage, files and folder sizes are all measured in _____.
Ans. bytes.
- Q35. A single numeric value using either 0 or 1 is called a _____.
Ans. Bit
- Q36. 1 nibble = _____ bits
Ans. 4
- Q37. 1 byte= _____ bits
Ans. 8
- Q38. 1 Kilo Byte = _____
Ans. 1024 bytes
- Q39. 1 MB = _____
Ans. 1024 Kilo Bytes
- Q40. 1 GB = _____
Ans. 1024 Mega Bytes (MB)
- Q41. 1 TB = _____
Ans. 1024 Giga Bytes (GB)

- Q41. 1 PB (Peta Bytes) = _____
Ans. 1024 Tera Bytes (TB)
- Q42. There are two primary types of softwares:
Ans. Application software and Systems software.
- Q43. What are application softwares?
Ans. It includes programs that direct the computer to carry out specific tasks. Example: MS Powerpoint, Openoffice.org impress
- Q44. Often, _____ are integrated to create an application.
Ans. multiple programs
- Q45. Writer is a _____ software.
Ans. Word Processor
- Q46. Impress is a _____ software.
Ans. Powerpoint
- Q47. Spreadsheet is a _____ software.
Ans. Spreadsheet
- Q48. What are tailormade or customized software?
Ans. There are application softwares that are created to address specific needs of a group of specialized users and are, therefore, known as tailored or customized software. Example: tally, quickbooks
- Q49. What are system softwares?
Ans. System software includes the programs that enable the computer's hardware to work with and run the application software.
- Q50. _____ is the interface between user and the other programs and the computer's hardware.
Ans. System software
- Q51. There are two categories of system software: _____ and _____.
Ans. Operating system and utility software.
- Q52. What is an operating system?
Ans. The operating system, also referred to as the OS, is a computer program that manages all the other programs on your computer, stores files in an organized manner, and coordinates the use of the computer hardware such as the keyboard and mouse.
- Q53. What is an utility software?
Ans. Utility software is a form of system software. It is used to analyze, configure, optimize or maintain the computer.
- Q54. What are the different types of utility software?
Ans. Text Editors, Compression Utilities, Disk Fragmentation, Scan Disk, Encryption or Decryption
- Q55. Write the characteristics of computers.
Ans.
 1. Speed - computer produces result very quickly
 2. Accuracy - produces accurate/ correct result or output
 3. No IQ - doesn't have its own brain to think
 4. Diligence - doesn't get tired

5. Data Storage - can store huge quantity of data
6. No Heuristics - doesn't learn from its own mistakes

- Q56. The first electronic computer was designed and built at the _____ based on vacuum tube technology.
Ans. University of Pennsylvania
- Q57. Computers have been divided into _____ generations according to the development of technologies
Ans. Five
- Q58. _____ generation computers used bulky vacuum tubes.
Ans. I Generation.
- Q59. _____ generation used transistors instead of vacuum tubes.
Ans. 2nd Generation.
- Q60. FORTRAN and COBOL were used in _____ generation.
Ans. II Generation
- Q61. In _____ generation Small Scale Integration and Medium Scale Integration technology were implemented in CPU, I/O processors etc. Faster processors with magnetic core memories that were later replaced by RAM and ROM.
Ans. III Generation
- Q62. Microprocessors were introduced in _____ Generation.
Ans. IV Generation
- Q63. _____ Generation Computers use extensive parallel processing, multiple pipelines, multiple processors etc.
Ans. V Generation
- Q64. _____ computers deal with data in the form of numbers. They mainly operate by counting and performing arithmetic & logical operations on numeric data. Such computers are 'many problems' oriented.
Ans. Digital
- Q65. What are hybrid computers?
Ans. Digital computers could not deal with very large numbers and so, a computer with characteristics of both analog and digital was created which was known as Hybrid computer.
- Q66. What is a Micro-computer?
Ans. Micro-computer is a type of computer which came into being with the invention of the micro-processor. They are not so expensive. The personal computer is a micro-computer.
- Q67. _____ computers are used in banking, airlines and railways etc. for their applications.
Ans. Mainframe
- Q68. A _____ is the fastest type of computer
Ans. supercomputer
- Q69. What are supercomputers?
Ans. They are employed for specialized applications that require large amounts of mathematical calculations. A supercomputer channels all its power into executing a few programs at great speed.

Q70. Differentiate between mainframe computer and super computer.

Ans	Mainframe	Super Computer
	1. Process data at very high speeds, but less than that of super computers	1. is the fastest type of computer
	2. a mainframe uses its power to execute many programs at the same time.	2. A supercomputer channels all its power into executing a few programs at great speed.
	3. Used in banking, airlines and railways etc.	3. used in quantum mechanical physics, weather forecasting, climate research, molecular modeling etc.

Q71. Draw a diagram of IPO.

Ans.

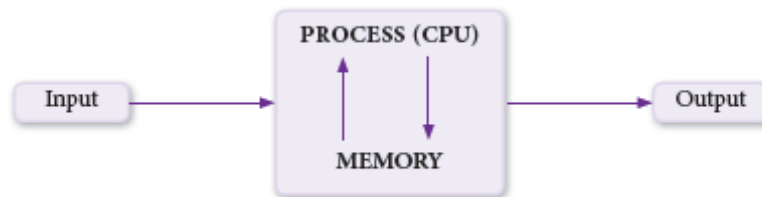


Diagram of a computer of IPO

Q72. The _____ Ports are simple, 6-pin, low-speed serial connections commonly used to connect a keyboard and mouse.

Ans. PS/2

Q73. _____ is used to connect the monitor to the computer. It offers images at higher resolutions. It can produce as many as 256 colors at a time from a palette of 262,144 colors.

Ans. Video Graphics Array (VGA)

Q74. _____ means the device is capable of receiving more than one bit at a time.

Ans. Parallel

Q75. _____ port is used to connect it to a wired network.

Ans. Ethernet port

Q76. _____ is a technology for transmitting video signals over a cable by dividing the video information into two separate signals: one for color (chrominance), and the other for brightness (luminance).

Ans. S-Video Port

Q77. Full form of USB is _____

Ans. Universal Serial Bus

Q78. _____ is a protocol for transferring data to and from digital devices.

Ans. USB

Q79. _____ is a cabling technology for transferring data to and from digital devices at high speeds.

Ans. FireWire

Q80. The process of decoding data that has been encrypted into secret format is called _____

Ans. Decryption

Q81. Most keyboards attach to the PC via _____ connector or _____ port.

Ans. PS/2 or USB port

Q82. What is IPO?

Ans. IPO refers to input-process-output cycle which is followed by the computer system to achieve the desired result.

Q83. What is secondary memory?

Ans. Secondary memory is also known as Auxiliary Memory. It helps to store the data permanently using available storage devices such as Hard Disk, DVD, USB, etc.

Q84. _____ is a volatile memory.

Ans. RAM

Q85. _____ is also known as auxiliary memory.

Ans. Secondary memory

Q86. _____ permanently stores a set of instructions which instructs the computer how to work. After we switch on the computer, it uses instructions stored here to carry out a series of tasks automatically, before we can actually use the computer.

Ans. Read Only Memory

GIMP (GNU Image Manipulation Program)

Theory : 10 Marks

Practical: 20 Marks

Textbook Questions

A. Multiple choice questions

1. _____ tool helps you to add a new layer to the image which is identical copy of the active layer.
(a) Smudge Tool (b) Dodge Tool (c) Perspective Tool (d) Duplicate Layer
Ans. (d) Duplicate Layer
2. By default the mask is shown in _____, but you can change this if another mask colour is more convenient.
(a) Red (b) Blue (c) Green (d) No colour
Ans. (a) Red
3. In _____ mode, the selection is shown as a translucent screen overlying -the image, whose transparency at each pixel indicates the degree to which that pixel is selected.
(a) Default (b) Quickmask (c) Marching ants (d) Normal
(b) Quickmask
4. _____ are the transparent sheets one on top of the other.
(a) Masking (b) Tools (c) Layers (d) None of the above
Ans. (c) Layers
5. By default the extension of Gimp file is _____
(a) .Xcf (b) .BMP (c) .TIFF (d) .PNG
Ans. (a) .Xcf
6. GPL stands for
(a) General Private license (b) Great Pioneer License (c) General Public Limited (d) General Public License
Ans. (d) General Public License
7. The image loses some of its quality by being _____
(a) Scaled (b) Merging (c) Renaming (d) Masking
Ans. (a) Scaled
8. In _____ mode, over-application of the tool will produce noise.
(a) Sharpen (b) Blur (c) Dodge (d) Smudging
Ans. (a) Sharpen
9. _____ takes colour in passing and uses it to mix it to the next colours it meets.
(a) Sharpen (b) Blur (c) Dodge (d) Smudging
Ans. (d) Smudging

B. Answer the following questions:

1. Name the application areas where Gimp can be used.
Ans.
 1. It can be used in DTP office to edit photographs.
 2. It can be used to edit photos for website designing.
 3. It can be used in Advertising agency to create photos.
 4. It can be used by publishing house like magazine or newspaper office.
2. Mention all the features of Gimp.
Ans.
 1. It can be used as a simple paint program
 2. It can be used for expert photo retouching program
 3. It can convert and save files in JPEG, GIF, TIFF etc.
 4. It can be installed in different operating systems like MS Windows, Linux, Mac OS etc.

3. What do you understand by General Public License (GPL)?
 Ans. It is a license issued for the open source software's.
4. Which tool is used to align the objects placed on different layers? Explain all its options.
 Ans. Align tool. The different options are left, right, horizontal middle, top, bottom, vertical middle
5. Name the properties needs to be changed while scaling the image.
 Ans. Height, Width, X and Y resolution, and Interpolation
6. Which tool is used to lighten the pixels in an image?
 Ans. Dodge Tool
7. Which tool is used to darken the colour pixels in an image?
 Ans. Burn Tool.
8. Differentiate between Shear and Perspective tool.

Shear Tool	Perspective Tool
1. Shear tool is used to shift one part of the image in one direction and the opposite part in opposite direction like in horizontal shearing if the top part of image moves to the left then the bottom part of the image will move to the right.	1. Perspective tool is used to change the dimension of the image.
2.	

9. What is the default background and foreground colour of image window?
 Ans. Background - Black, Foreground - White
10. How is blur tool different from smudge tool?
 Ans.

Blur Tool	Smudge Tool
1. Blur Tool mixes the colours in neighbouring pixels.	1. Smudge Tool mixes all the colours at distance it meets.
2. It increases the similarity of pixels.	2. It increases the similarity of colours

11. Name any four tools used for changing the pixel arrangement in an image.
 Ans.
- Scale Tool
 - Blur/Sharpen Tool
 - Brush & Pencil Tool
 - Eraser Tool
 - Blend Tool
 - Smudge
 - Dodge / Burn Tool

12. What is the difference between Blur tool and Sharpen tool?
 Ans.

Blur	Sharpen
1. It mixes the colours in neighbouring pixel	1. It separates the colours in neighbouring pixel.
2. It increases the similarity of pixels.	2. It Increases the contrast of the pixels.

13. How is flipping an image different from rotating an image?
 Ans. Flipping means creating a mirror image of the selection or image or layer. Flipping can be either horizontal flipping or vertical flipping.
 Rotating an image means revolving or spinning an image to a specific angle. Like 15 degree/ 30 degree etc.
14. Write the steps to apply blend effect on an image?

Ans.

1. Change the background and foreground colour in the toolbox with the colours that we want to blend. For Example if we want to mix blue with red we will change the foreground colour to be blue and background colour to be red.
2. Click on the blend tool in tool box.
3. Click on the image by left clicking on mouse button and drag the mouse to the position in the image till which we want to blend colours.
4. Release the mouse left button to stop blending.

15. What are Layers? What is the purpose of using Layers?

Ans. Layers are the transparent sheets one on top of the other.

The purpose of layers is to work on one element of an images without disturbing others.

16. What is the need of merging the Layers?

Ans. if we want multiple layers to become one single layer then we can merge the layers.

C. **Identify the tools used for the following purpose:**

- | | |
|---|-----------|
| 1. To resize the layer/image | Scale |
| 2. To move layers | Move |
| 3. To align the layers with various objects | Align |
| 4. To create the mirror image | Flip |
| 5. To draw free hand drawings | Pencil |
| 6. To lighten the colour pixels of an image | Dodge |
| 7. To give wet paint effect in an image | Smudge |
| 8. To shift one part of an image/ a layer to a particular direction | Shear |
| 9. To apply different colours without effecting the original image | Quickmask |
| 10. To remove objects from the canvas | Eraser |

D. **Application Oriented Questions**

1 Shivank has collected pictures of his favourite superhero and wants to make a collage of the superhero in action. Suggest him the way to make collage.

Ans. He can open all the images as a layer and then scale them on the canvas to make a collage.

2 Amishi wants to change the background of her class photograph with the school \ building. Help her to do the same.

Ans. He can open the image of her and the school building as a layer and then bring her photograph to the top of the building layer and then start masking.

3 Rudraksh has to send his photograph to the passport office for the processing of his Passport but his photograph clicked by the photographer is very dark due to insufficient light. Help him lighten the colour pixel of his photograph as per the requirement.

Ans. He can use Dodge tool.

4 Geetanjali has got a project work in she has been given two images, where one image depicts a girl walking on the grass and other one depicts an ocean. Now she has to project as if the girl is walking on the water surface. Suggest her the way to accomplish the task.

Ans. She can open both the images as layers and then bring the picture of grass layer over the layer of ocean and then start masking.

5 Avni wants to change her coloured photograph into white/black photograph along with the borders and corners of the image without affecting the original image.

- Help her to do the same.
- Ans. She can open the image and then click Image → Mode → Grayscale
- 6 Bhuvi is working on her social science project work. She wants to add the image of the Minister but the image is not in the required direction. She needs the mirror image of the photograph. Suggest her the tool to perform the task.
- Ans. She can use Flip tool
- 7 Mohit has got a hazy image. He wants to increase the contrast of the image. Suggest him the tool to complete the task.
- Ans. He can use Sharpen tool.
- 8 Vasu has inserted an image in a new file. He wants to duplicate the image on the same layer. Suggest him the tool which will fulfil his requirement.
- Ans. He can click on image menu → Layer → Duplicate Layer.

Board / Sample Papers Questions

1. Identify the tools used for the following purpose:
- To lighten the colours in an image.
 - To shift one part of an image, a layer, a selection or a path to a direction and the other part to the opposite direction.
- Ans. a. Dodge tool
b. Shear tool
2. Name any four tools used for Retouching an image in GIMP.
- Ans. a. Scale Tool
b. Blur/Sharpen Tool
c. Brush & Pencil Tool
d. Eraser Tool
e. Blend Tool
f. Smudge
g. Dodge / Burn Tool
3. Differentiate between Blur and Sharpen tool.

Blur	Sharpen
Blur mode causes each pixel affected by the brush to be blended with neighbouring pixels, thereby increasing the similarity of pixels inside the brushstroke area.	Sharpen mode causes each pixel to become more different from its neighbours, it increases contrast inside the brushstroke area.
Blurring can be useful to soften some element of the image that stands out too much.	In "Sharpen" mode, the tool works by increasing the contrast where the brush is applied.

4. What are Layers?
- Ans. In GIMP terminology, each individual transparency is called a Layer. Layers are the transparent sheets one on top of the other. You can see through transparent areas of a layer to the layers below.
5. What is the purpose of using Layers?
- Ans. Layers allows us to work with one element of an image without disturbing the others. Layer provides a variety of effects that change the appearance of the image.
6. Abhay scanned a few photos but some of the scanned photos did not look colourful enough. How can he improve their tonal range?
- Ans. If some of the scanned photos do not look colourful enough, we can easily improve their tonal range with the "Auto" button in the Levels tool (Colours→Levels).
7. What steps should Shikha perform to enlarge the image of the Medical prescription of her Aunt

- which she has opened in GIMP?
- Ans.** Step 1: Click on Image-> Scale Image
Step 2: Set the required width and height and click on scale.
- 8.** How is Flip tool different from Rotate tool?
- Ans.** Using a Flip tool on an image produces its mirror image.
Whereas ,
Rotate tool helps to rotate an image by different angles.
- 9.** What is masking?
- Ans.** Masking effect allows you to create merge effects in an image.
- 10.** Abhay scanned a few photos but some of the scanned photos have a colour casts. How can he improve the colour cast?
- Ans.** If there are any color casts, you can correct them with the Curves tool (Colours→Curves).
- 11.** Not all effects can be applied to all kinds of images. Explain.
- Ans.** Yes, This is indicated by a grayed-out menu entry.
- 12.** How can you change the image mode to RGB?
- Ans.** Image→Mode→RGB
- 13.** How can you add an alpha channel?
- Ans.** Layer→Transparency→Add Alpha Channel
- 14.** How can you flatten an image?
- Ans.** Image→Flatten Image
- 15.** What are Retouching tools? Give Examples.
- Ans.** Retouching tools are used for the arrangement of pixels.
Example:
a. Scale Tool
b. Blur/Sharpen Tool
c. Brush & Pencil Tool
d. Eraser Tool
e. Blend Tool
f. Smudge
g. Dodge / Burn Tool

Other Important Questions

- Q1.** What is GIMP?
- Ans.** GIMP is GNU Image Manipulation Program. It is free and powerful open source image editing tool.
- Q2.** Write the features of GIMP.
- Ans.**
- 1) It can be used as a simple paint program
 - 2) It is a quality photo retouching program
 - 3) It can convert and save files to many file formats such as gif, jpeg, tiff.etc
 - 4) GIMP works with numerous operating systems including Linux, Mac OS and Microsoft Windows.
 - 5) Virtually unlimited images can be opened at one time.
- Q3.** What is the use of scale tool?
- Ans.** To change the Size of an Image, that is height and width and also to change the resolution or pixels we use scale tool.
- Q4.** What is the use of Crop tool?
- Ans.** To remove an unwanted or everything outside of the selected part we use the crop tool.

- Q5. Write the name of five of the tools to select a part of the image in GIMP.
Ans. Rectangle select tool, oval select tool, lasso tool, fuzzy select tool, select by color
- Q6. The _____ Select tool helps you to select areas of the current layer or image based on colour similarity.
Ans. Fuzzy
- Q7. The _____ tool places text into an image.
Ans. Text
- Q8. The _____ tool is used to remove areas of colour from the current layer or from a selection of this layer.
Ans. Eraser
- Q9. The Bucket Fill tool fills a selection with the current _____ colour
Ans. Foreground
- Q10. GIMP's basic palette, consist of _____ and _____ colours
Ans. Foreground and Background
- Q11. _____ is used to select a specified area which you want to focus and removes the unwanted parts or everything outside the selected area of a picture
Ans. Cropping
- Q12. What are layers in GIMP?
Ans. Layers are transparent sheets stacked one on top of the other. We can see through transparent areas of a layer to the layers below.
- Q13. In GIMP, the _____ are virtually stacked up on top of each other
Ans. Layers
- Q14. What is the use of move tool?
Ans. The Move Tool is used to move layers, selections, paths or guides. It works also on texts.
- Q15. What is the use of Align tool? What are the different align options.
Ans. The Align tool is useful to align the image layers with various image objects. The different align options are left edge, horizontal middle, right edge, top edge, vertical middle, or bottom
- Q16. The _____ Image command enlarges or reduces the physical size of the image by changing the number of pixels it contains.
Ans. Scale
- Q17. Explain Shear tool.
Ans. Shear tool is used to shift one part of an image, a layer, a selection or a path to a direction and the other part to the opposite direction. For instance, a horizontal shearing will shift the upper part to the right and the lower part to the left.
- Q18. Explain Perspective tool.
Ans. The Perspective Tool is used to change the dimensions of the active layer content,

of selection content or of a path.

Q19. Explain flip tool and rotate tool

Ans. Flip tool creates a mirror image that is the left becomes right and we can also use it vertically that is the top becomes bottom and bottom becomes top.
Rotate tool helps to revolve or spin an image or selection or layer.

Q20. Explain Blend tool.

Ans. The Blend tool creates a new color by gradually mixing multiple colours. This tool fills the selected area with a gradient blend of the foreground and background colours.

Q21. Explain Blur/Sharpen tool

Ans. Blur mode causes each pixel affected by the brush to be blended with neighbouring pixels, thereby increasing the similarity of pixels inside the brushstroke area.

Sharpen mode causes each pixel to become more different from its neighbours, it increases contrast inside the brushstroke area.

Q22. Over-application of the _____ tool will produce noise.

Ans. Sharpen

Q23. Explain Smudge Tool.

Ans. The Smudge tool uses the current brush to smudge colours on the active layer or a selection. It takes color in passing and uses it to mix it to the next colours it meets, on a distance you can set.

Q24. Explain Dodge and Burn Tool.

Ans. The Dodge tool uses the current brush to lighten the colours in your image.
The Burn tool uses the current brush to darken the colours in your image.

Q25. In GIMP terminology, each individual transparency is called a _____.

Ans. Layer

Q26. The _____ Layer command adds a new layer to the image which is identical copy of the active layer.

Ans. Duplicate

Q27. What is the name of new duplicate layer in GIMP?

Ans. The name of the new layer is the same as the name of the original layer, but with “ copy” appended to it.

Q28. What is mask in GIMP.

Ans. The Mask is GIMP’s way of showing the full structure of the selection.

Q29. By default the mask is shown in _____, but you can change this if another mask colour is more convenient.

Ans. Red

Q30. By default the extension of Gimp file is _____

Ans. XCF

Q31. What is Quickmask.

Ans. In Quickmask mode, the selection is shown as a translucent screen overlying the image, whose transparency at each pixel indicates the degree to which that pixel is selected.

Tables and Frame
Theory : 06 - 08 Marks
Textbook Questions

- A. Multiple choice questions
1. <TR> belongs to Frameset tag.
(a) <Table> (b) <DIV> (c) <Frameset> (d) <TD>
Ans. (a) <Table>
 2. _____ tag is used to add columns to a table
(a) definition list (b) definition list term (c) definition list description (d) none of the above
Ans. (d) none of the above as <td> or <th> tag is used to add a column
 3. Which attribute is used to define cell contents to left ?
(a) VAlign (b) Align (c) GAlign (d) HAlign
Ans. (b) Align
 4. Tag to add a row to a table.
(a) TR (b) TD (c) TH (d) TC
Ans. (a) TR
 5. Which of the following is used to specify the beginning of a table's row?
(a) TROW (b) TABLER (c) TR (d) ROW
Ans. (c) TR
 6. In order to add border to a table, BORDER attribute is specified in which tag
(a) THEAD (b) TBORDER (c) TABLE (d) TR
Ans. (c) TABLE
 7. Which of these tags are called table tags?
(a) <Thead><body ><tr> (b) <Table><tr><td>
(c) <Table><head><tfoot> (d) <Table><tr><tt>
Ans. <Table><tr><td>
 8. _____ tag is used to define the heading of a table
(a) TABLE (b) COLUMN (c) HEADING (d) TITLE
Ans. TH
 9. Which HTML command is used to align the contents of the cell to right.
(a) <TR align= right-> (b) <TD align = right>
(c) <TD> align = right (d) All of the above
Ans. (b) <TD align = right>
 10. Which of the following statements is incorrect:
(a) < frameset rows = "20% , 80 %"> (b) < frameset cols = "40% , 60 %">
(c) < frameset rows = "60% , 60 %"> (d) < frameset rows = "60% , 40 %">
Ans. c) < frameset rows = "60% , 60 %">
- B. Answer the following questions:
1. What attribute will be used on the CAPTION tag to put the table description at the bottom of the table?
Ans. <caption align="bottom">
 2. Write the code to display a 'ghost cell'.

```
<table>
  <tr>
    <td>S.no</td>
    <td>Name</td>
  </tr>
  <tr>
    <td>1</td>
  </tr>
</table>
```
 3. Name the tag that defines how to divide the window into frames.
Ans. <frameset>
 4. Name the tag that is used to put HTML document into frames.

Ans. <frame src="a.html">

5. Where the text is displayed which is specified in the <caption> tag?

Ans. The <caption> tag is used to provide a text to the table so as to explain the contents of the table. It is generally in bold, at center with respect to the table.

6. Which attribute will you use if you do not want frame windows to be resizable?

Ans. Noresize

7. Differentiate between <TH> and <Caption> tags.

Ans.

<TH>	<Caption>								
1. The TH element or <TH> tag creates the header cell in table.	1. The <caption> tag is used to provide a text to the top or bottom of table.								
2. Example: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>S.No.</th> <th>Name</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>XYZ</td> </tr> </tbody> </table> Here S.No. and Name is created using <th> element.	S.No.	Name	1	XYZ	2. Example: <p style="text-align: center;">List of students</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>S.No.</th> <th>Name</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>XYZ</td> </tr> </tbody> </table> Here the text "List of students" is a caption.	S.No.	Name	1	XYZ
S.No.	Name								
1	XYZ								
S.No.	Name								
1	XYZ								

8. How <TD> and <TR> are different from each other?

<TD>	<TR>								
1. <TD> tag is used to specify the table data.	1. <TR> tag is used to create a row in a table.								
2. Example: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>S.No.</th> <th>Name</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>XYZ</td> </tr> </tbody> </table> Here 1 and XYZ is created using <td> tag	S.No.	Name	1	XYZ	2. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>S.No.</th> <th>Name</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>XYZ</td> </tr> </tbody> </table> Here in the able table there are two rows which are created using <tr> tag.	S.No.	Name	1	XYZ
S.No.	Name								
1	XYZ								
S.No.	Name								
1	XYZ								

9. What is the purpose of using Frames in HTML pages?

A frame divides the screen into separate windows with both vertical and horizontal scroll bars. This allows the user to access different pages of a website from one screen.

10. Discuss all the tags with their attributes to create a frame.

Ans. The attributes used with the FRAMESET element are given in the table below:

Attributes	Value accepted	Description
Rows	Number in percentage or star (*) indicating the rest of the window	Divides the main window horizontally in proportion to main window
Cols	Number in percentage or star (*) indicating the rest of the window	Divides the main window vertically in proportion to main window
Border	Number	Increases the width of the outer border.
Frame border	Number	Used with netscape navigator to surround the sub-window with a border. If value is set to zero, no outer lines appear around the frame.
Frame spacing	Number	If set to zero, it removes the ugly grey lines appearing between the two frames, otherwise it increases the width of the grey line.

The FRAMESET element works in conjunction with the FRAME tag whose attributes are discussed below:

S No	Attributes	Value	Description
1	src (mandatory attribute)	Address of the HTML document	To load the HTML webpage in the frame defined by FRAMESET element
2	scrolling	Yes/Auto/No	Yes will insert both the scrolls irrespective of the size of the sub-window. Auto will insert the scrolls only when the contents of the sub-window are not visible No will not insert any scrolls even when all the contents are not visible.
3	Noresize	Noresize	when used this attribute does not allow the user to adjust the size of the frame in the webpage.
4.	Name	A noun	Assign a name to the frame
	Target	The noun of name attribute	This attribute specifies the name of a frame where a document is to be opened.

11. What does 'n' stands for in the following tags?

- (a) <Table border=n>
- (b) <table bgcolor = "n">
- (c) <td bgcolor = "n">
- (d) <td width = n>
- (e)

Ans. (a) here n stands for the table border thickness.

(b) here n is the background colour of table

(c) here n is the background colour of the cell

(d) here n is the width of the column

(e) here n is the hyperlinked reference file name

12. Which code snippet will display the following? Explain why

MERGEDROW	
R2	1
R3	2
R4	3

Ans. Option 2

```
<TABLE border=2>
```

```
<TR>
```

```
<TH>MERGEDROW</
```

```
TH>
```

```
<TH>&nbsp;</TH>
```

```
</TR>
```

```
<TR>
```

```
<TD>R2</TD>
```

```
<TD>1</TD>
```

```
</TR>
```

```
<TR>
```

```
<TD>R3</TD>
```

```
<TD>2</TD>
```

```
</TR>
```

```
<TR>
```

```
<TD>R4</TD>
```

```
<TD>3</TD>
```

```
</TR>
```

</TABLE>

Board Exam Questions - Previous Years / Sample Papers

1. Explain the various values associated with “scrolling” attribute of FRAME tag.

Ans.

The scrolling attribute of FRAME tag can take 3 values:

Yes will insert both the scrolls irrespective of the size of the sub-window.

Auto will insert the scrolls only when the contents of the sub-window are not visible.

No will not insert any scrolls even when all the contents are not visible.

2. Write HTML code to display the following table :

Duty Chart

8 AM	10 AM	12 AM
KEVIN	KHUSHBOO	AMARJEET

Specifications:

The title of the webpage is “Schedule”

The Caption of the Table is Duty Chart.

8 AM, 10 AM, 12 AM are Headings given to the table.

Ans.

<HTML>

<HEAD>

<TITLE> Schedule </TITLE>

</HEAD>

<BODY>

<TABLE Border = 1>

<CAPTION>Duty Chart</CAPTION>

<TR>

<TH> 8 AM </TH>

<TH> 10 AM </TH>

<TH> 12 AM </TH>

</TR>

<TR>

<TD> KEVIN</TD>

<TD> KHUSHBOO </TD>

<TD> AMARJEET </TD>

</TR>

</TABLE>

</BODY>

</HTML>

3. Which of these tags are all <table> tags?

a) <table><head><tfoot>

b) <table><tr><td>

c) <table><tr><tt>

d) <thead><body><tr>

Ans. b) <table><tr><td>

4. Choose the correct HTML to left-align the content inside a table cell

a) <td valign="left">

b) <tdleft>

c) <td leftalign>

d) <td align="left">

Ans. d) <td align="left">

5. 14. Which of the following statements is true?

a) HTML documents involving frames should contain both the BODY and FRAMESET tag.

b) FRAME can be used in place of FRAMESET.

- c) HTML documents involving frames should contain only the BODY tag.
 d) HTML documents involving frames should contain the FRAME-SET tag and not the BODY tag.

Ans. d) HTML documents involving frames should contain the FRAME-SET tag and not the BODY tag.

6. Which of the following is legal HTML syntax?

- a) <FRAMESET COLS= "50%, 50%">
 b) <FRAMESET ROW= "50%, 50%">
 c) <FRAMESET COLUMNS= "50, 50">
 d) <FRAME COLS= "50%, 50%">

Ans. a) <FRAMESET COLS= "50%, 50%">

Other Questions

1. Explain all tags and attributes for creating table.

S.No.	Description	Tags and Attributes	Values
1.	Define Table	<TABLE ></TABLE>	
2.	Table Border	<TABLE BORDER=?> </TABLE>	
3.	Desired Width	<TABLE WIDTH=?>	(in pixels)
4.	Width Percent	<TABLE WIDTH="%">	(percentage of page)
5.	Table Row	<TR></TR>	
6.	Alignment	<TR ALIGN=LEFT RIGHT CENTER MIDDLE BOTTOM>	
7.	Table Cell	<TD></TD>	(must appear within table rows)
8.	Table Header	<TH></TH>	(same as data, except bold & centered)
9.	Alignment	<TH or TD ALIGN=LEFT RIGHT CENTER MIDDLE BOTTOM>	
10.	No Linebreaks	<TH or TD NOWRAP>	
11.	Desired Width	<TH or TD WIDTH=?>	(in pixels)
12.	Width Percent	<TH or TD WIDTH="%">	(percentage of table)
13.	Cell Color	<TH or TD BGCOLOR="#\$\$\$\$\$\$">	
14.	Columns to Span	<TH or TD COLSPAN=?>	
15.	Rows to Span	<TH or TD ROWSPAN=?>	
16.	Table Caption	<CAPTION></CAPTION>	
17.	Alignment	<CAPTION ALIGN=TOP BOTTOM>	(above/below table)

Forms

Theory : 06 - 08 Marks

Textbook Questions

- A. Multiple choice questions**
1. A _____ can be inserted in HTML document which can act as a container for all the input elements.
(a) Text field (b) Teaxt area (c) Form (d) Command Button
Ans. (c) Form
 2. _____ method is used to sent form data as URL variables.
(a) get (b) set (c) post (d) none of them
Ans. (a) get
 3. _____ method is used to sent form data as HTTP post.
(a) get (b) set (c) post (d) none of them
Ans. (c) post
 4. What is the purpose of a web form
(a) An outdated feature still used to help the page load faster
(b) An useful way to send information from the user directly to the search engines
(c) A way to input data into a website or an application
(d) To enable the user to navigate the website with ease
Ans. (c) A way to input data into a website or an application
 5. Which element allows for the creation of groups of options in a select menu?
(a) <select> (b) <group> (c) <option> (d) <optgroup>
Ans. (a) <select>
 6. Which of the option will be selected with the following code snippet?
<select>
<option selected value="Fiat">Fiat</option>
<option value="selected">Saab</option>
<option value="opel">selected</option>
<option value="audi">Audi</option>
</select>
(a) Fiat (b) Saab (c) Selected (d) Audi
Ans. (a) Fiat

B. Answer the following questions:

1. Why forms are used in web pages?
Ans. A form is an object that is used for collecting data from the user.
2. Explain all the attributes of Form tag.
Ans. The two main attributes of <form> tag are:
1) Method=POST/Get
2) Action=filename
The method attribute specifies how to send form-data
Action attribute specifies where to send form-data
3. Differentiate between Get & Post methods of Form tag.

Ans.

Get	Post
1. Appends form-data into the URL in name/value pairs	1. Appends form-data inside the body of the HTTP request (data is not shown in URL)
2. The length of a URL is limited (about 3000 characters)	2. It has no size limitations
3. Useful for form submissions where a user want to bookmark the result	3. Form submissions with POST cannot be bookmarked
4. GET is better for non-secure data, like query strings in Google	4. POST is better for secure data like id and password.

4. How text field and text area controls are different from each other?
Ans.

Text Field	Text Area
1. Text Field can take input only in a single line	1. TextArea can take input in multiple lines.
2. Textfield control is created using <code><input type="text"></code> tag	2. Textarea control can be created using <code><textarea></code> tag

5. Explain the use of Radio buttons in HTML forms with the help of an suitable example
 Ans. Radio button enables the selection of one of the options out of the many
6. Mention all the attributes of Check box. Justify how it is different from Radio button.
 Ans.

The attributes of checkbox are: Name, Value, Checked

Check box	Radio button
1. Checkbox allows for multiple selections of items.	1. Radio button enables the selection of one of the options out of the many
2. It is Created using <code><input type="checkbox"></code> tag	2. It is Created using <code><input type="radio"></code> tag

7. State the purpose of Submit and Reset button.
 Ans.

Submit	Reset
When activated, a submit button submits a form.	When activated, a reset button resets all controls to their initial values.

8. Which attributes are necessary to insert drop down list in a HTML page?

Ans. `<select name="country">`
`<option value="In">India</option>`
`</select>`

9. Sometimes it is better to use the text area element instead of an input element of type text. Write a short note to explain when and why?
 Ans. When we want to input text in multiple lines then we will use textarea.

Board Exam Questions - Previous Years / Sample Papers

1. Aayush wants to send highly sensitive form data such as username and password which method out of GET/POST should he use to send the form data? Why?

Ans.

POST METHOD, as it appends form-data inside the body of the HTTP request and data is not shown in URL

2. Carefully observe the following labeled screenshot and answer the questions that follow:

Your Name : → 1

Type your Address here:

 → 2

Choose setting type:
 Do Not Disturb
 VIBRATE
 Active } → 3

APP Preferences: GAMES NEWS ASTROLOGY → 4

Choose Country: → 5

- Identify the form element labeled as 1 and 2?
- Why has the form element labeled as 2 used to input the Address?
- Write HTML code to create the form element labeled as 3.
- Differentiate between the form element labeled 3 and the form element labeled 4.
- How can any one item be highlighted in the Dropdown box labeled as 5?

- a. Form element labeled as 1 is a Textbox and Form element labeled as 2 is a Textarea
- b. Text areas are the fields that display multiple text lines at a time hence it has been used to accept Address which also contains multiple lines of text.
- c. `<input type="radio" name="Ltype" value="DND">Do Not Disturb
`
`<input type="radio" name="Ltype" value="Vib">VIBRATE
`
`<input type="radio" name="Ltype" value="Act">Active
`
- d. Form element labeled as 3 is a Radio button .It enables the selection of one of the options out of the many.

Whereas,

Form element labeled as 4 is a Checkbox. As compared to radio button, a checkbox allows for multiple selections of items.

e. To highlight one item in a dropdown box ,“selected” clause is used in the `<option>` tag as follows :

`<option selected>`

Eg:

```
<select>
<option>SINGAPORE</option>
<option selected>JAPAN</option>
<option>MALAYSIA</option>
</select>
```

3. Carefully read and answer the following questions with respect to HTML:
 - i. What is a Form?
 - ii. What does a Form consist of?
 - iii. Which tag is used to insert a Form in a HTML document? Is it a container or a non container tag?
 - iv. What values can be used with the Method attribute of the Form?
 - v. How is a Submit button different from a Reset Button in a Form?

i. A Form is an object that is used for collecting data from the user.

ii. A Form consists of the elements of a form called the form fields. These fields may be text field, text area, drop-down box, radio buttons, checkbox and/or a command button.

iii. `<Form>` `</Form>` tag is used to insert a Form in a HTML document.It is a container tag.

iv. The values that can be used with the Method attribute of the Form are:

Get

Post

v. When activated, a submit button submits the data collected through the form elements in a form

Whereas when activated, a reset button resets all controls/form elements to their initial values.

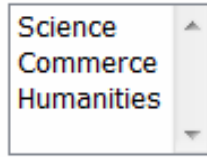
4. Observe the following code and answer the questions that follow:

```
<html>
<head>
<title>
Find Output
</title>
</head>
<body>
<select Multiple>
<Option> Science</Option>
<Option> Commerce</Option>
<Option> Humanities</Option>
</select>
</body>
</html>
```

- i. What is the use of <select> tag in the above code?
- ii. Explain the purpose of Multiple attribute of <select> tag.
- iii. What output will be produced when the above code is executed?

Ans. i. <select> tag is used to display list box

ii. Multiple attribute in <select> tag allows a user to select multiple options by using Ctrl or Shift button & mouse click.



iii.

5. Name the attribute of the <input> tag that determines the category of controls

a) SRC b) value c) name d) type

Ans. d) type

6. Name the attribute that is specified to set the width of a text.

a) limit b) size c) value d) maxlength

Ans. b) size

7. Is it possible for the developer to restrict the values accepted in a text field by specifying an attribute?

a) numeric b) integer c) value d) You cannot restrict text values using HTML.

Ans. d) You cannot restrict text values using HTML.

8. We mask the input typed into a text field by specifying an <input> tag as _____.

a) password b) secure c) invisible d) hidden

Ans. a) password

9. HTML provides an attribute for the <input> tag that allows you to encrypt data to make it secure.

a) True b) False

Ans. b) False

10. Which of the following is correct?

a)

<input type="radio" name="animal" value="Zebra"> Zebra

<input type="radio" name="animal" value="Lion"> Lion

<input type="radio" name="animal" value="Tiger"> Tiger

b)

<input type="radio" name=" Zebra"> Zebra

<input type="radio" name="Lion"> Lion

<input type="radio" name="Tiger"> Tiger

Ans. a)

<input type="radio" name="animal" value="Zebra"> Zebra

<input type="radio" name="animal" value="Lion"> Lion

<input type="radio" name="animal" value="Tiger"> Tiger

11. Which of the following is most true?

a) The <option> tag does not have a value attribute. If selected, it passes its displayed value.

b) The <option> tag only passes values through its value attributes. The displayed value is never Passed.

c) The <option> tag passes values through the value tag if it is present, and passes the value displayed if the value attribute is not given.

d) The purpose of the <option> tag is to specify the type of control to use, not to pass values.

Ans. b) The <option> tag only passes values through its value attributes. The displayed value is never Passed.

12. In order to clear the values in a form, the developer specifies an <input> tag as:

a) empty b) clear c) refresh d) reset

Ans. d) reset

13. What is the use of "Action" attribute of a form ?

Ans. To specify the filename as to where the data will be submitted.

14. Which method of <form> has no limitation over data size □ get or post ?
 Ans. POST
15. Which element in a form allows to create a drop down list ?
 Ans. Select
16. <input type=text> is used in a form to create a textbox. Write the names of any other four attributes which can be used here.
 Ans. Size, maxlength, value, name, tabindex, align
17. Write the purpose of “Name” attribute with any form element.
 Ans. It adds an internal name to the form element so the program that handles the form can identify the element. The values of the submitted form goes with the name.
18. Write the name of the attribute which is used to :
 (a) Display text on a button
 (b) Define the path where the form data should go
 (a) Value
 (b) Action

19. Write the output of the following code :
 <html><head><title>Testform</Title></Head><Body><form>
 Name<Input type=text>

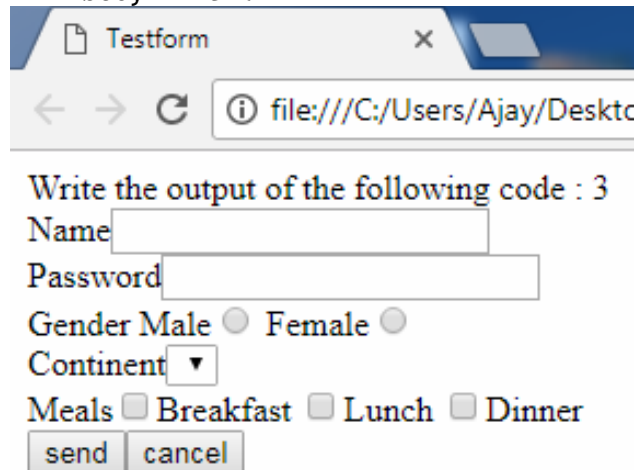
 Password<Input type=Password>

 Gender Male<Input type=radio name=R1>
 Female<Input type=radio name=R1>

 Continent<Select value=please select></select>

 Meals<input type=checkbox>Breakfast
 <input type=checkbox>Lunch
 <input type=checkbox>Dinner

 <Input type=submit value=send><Input type=reset value=cancel>
 </form></body></html>



- Ans.
20. Which attribute is needed to tell the form where its contents will be sent to?
 Ans. action
21. Write HTML code to generate the following form.

15th August is celebrated as

- Labour Day
- Independence day
- Republic day

Ans. `<html><head><title>Quiz</title></head>
<body>
<form method="post">
 15th August is celebrated as

 <input type="radio" name="q1" value="Labour Day">Labour Day

 <input type="radio" name="q1" value="Independence Day"> Independence Day

<input type="radio" name="q1" value="Republic Day"> Republic Day
 </form>
 </body>
</html>`

22. Differentiate between checked and selected attribute

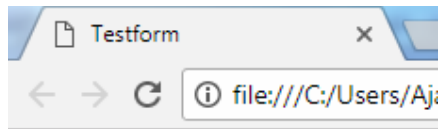
Ans.

Checked	selected
1. This attribute is used with either radio button or checkbox	1. This attribute is used with <option> tag inside <select> tag
2. It checks the radio button and check box component on the form	2. It selects one of the item in a drop down list box.

23. What will the following HTML code produce

```
<HTML>  
<body>  
</p>  
<form name="form1" method="post" action="">  
<p>Outdoor Games You Play</p>  
<p>  
<input type="checkbox" name="game1" value="table tennis"> Table Tennis<br>  
<br>  
<input type="checkbox" name="game2" value="football">Foot Ball<br>  
<br>  
<input type="checkbox" name="game3" value="swimming">Swimming<br>  
<br>  
</p>  
</form></form>  
</body>
```

Ans.



Outdoor Games You Play

- Table Tennis
- Foot Ball
- Swimming

24. What is the correct HTML for making a checkbox?
a) <checkbox>
b) <input type="checkbox" >
c) <input type="check" >
d) <check>
Ans. <input type="checkbox" >
25. What is the correct HTML for making a text input field?
a) <input type="textfield" >
b) <textinput type="text" >
c) <textfield>
d) <input type="text" >
Ans. <input type="text" >
26. Which of the following is not a valid attribute of the INPUT tag?
a) TEXT b) NAME c) SIZE d) MAXLENGTH
Ans. a) TEXT
27. Which of the following is not a valid value for the TYPE attribute of the INPUT tag?
a) checkbox b) radiobutton c) submit d) reset
Ans. b) radiobutton
28. Which of the following is syntactically correct HTML code?
a) <INPUT TYPE= "submit" VALUES = "reset,submit">
b) <INPUT TEXT = "submit" VALUE = "reset">
c) <INPUT TYPE = "submit" VALUE = "reset">
d) <INPUT TYPE = "reset" TEXT = "clear">
Ans. c) <INPUT TYPE = "submit" VALUE = "reset">

Other Questions

1. Write tag to create a form along with its attributes.
Ans. <form method="POST/GET" action="filename">
2. Write the tag to create Text field
Ans. <input type="text">
3. Write and explain all attributes of textfield.
Ans. Size: It defines the width of the field. It contains no. of visible characters.
Maxlength: It contains maximum no. of characters that can be entered in the field.
Name: It adds an internal name to the field
Value: It defines what will appear in the box as the default value
Align: It defines how the text field will be aligned on the form.
Valid entries are: TOP, MIDDLE, BOTTOM, RIGHT, LEFT, TEXTTOP, BASELINE, ABSMIDDLE, ABSBOTTOM.
- Tabindex: It defines in which order the different fields should be activated when the visitor clicks the tab key.
4. Write tag to create a textarea.
Ans. <textarea></textarea>
5. Write all attributes of <textarea> tag.
Ans. Cols: cols indicate the length of the textarea

Rows: rows indicate the number of rows with text that will be visible at a time.

Name: It provides an internal name to the textarea field

TabIndex: It defines the order number of activation of this field.

Wrap: It helps in flowing the text to the next row in a paragraph when the text reaches the right hand border of the text area.

It can take three types of values as discussed below:

(i) If the text is not wrapped, i.e. its value is set to “wrap off”,

(iii) The value Virtual recognizes the text with line breaks when textarea is loaded on the web page.

(iv) Physical defines the format of the text. It will appear on the webpage as inserted by the user.

6. Write the tag to create a radio button.

Ans. `<input type="radio" name="r1" value="abc">`

7. Write and explain all attributes of a radio button.

Ans. Name: It adds an internal name to the field

Value: It defines what will be submitted if checked.

TabIndex: It defines in which order the different fields should be activated

Checked: This attribute can have value (e.g., checked="checked | unchecked")

8. Write code to create a checkbox.

Ans. `<input type="checkbox" name="sweet" value="Chocolate">`

9. Write all attributes of checkbox.

Ans. Name: It adds an internal name to the field

Value: It defines what will be submitted if checked.

TabIndex: It defines in which order the different fields should be activated

Checked: This attribute can have value (e.g., checked="checked | unchecked")

10. Write code to create a submit button and Reset button.

Ans. `<input type="submit" value="Save">`

`<input type="reset" value="Clear">`

11. Write code to create a dropdown list

Ans. `<select>`

`<option>Chocolate</option>`

`<option>Ladoo</option>`

`<option>Cake</option>`

`</select>`

12. Explain all attributes of <select> tag.

Ans. Name: It adds an internal name to the field

Size: It defines the number of items to be visible

Multiple: It allows for multiple selections

13. Explain all attributes of <option> tag

Ans. Value: It defines what will be submitted to the computer when an item is selected

Selected: The item will be already selected when the form will be loaded/displayed

DHTML & CSS

Theory : 06 - 08 Marks

Important CSS Properties

Property	Values	Usage
FONT-FAMILY	“Arial”, “Times New Roman”, “Tahoma”, “serif”, “sans-serif”, “monospace”	Used to change the font
font-style	normal, italic, oblique	Used to make the text in italicized or oblique
font-variant	Normal, small-caps	A small-caps font display the smaller sized capitalized letters (upper case) instead of lower case letters
font-weight	Normal, bold	Used to make the text bold
font-size	px, pt, %, em ex. 5px, 50%, 12pt	To set the size of text
text-indent	px ex. 40px	The text-indent property allows you to add effects to text paragraphs by applying an indent to the first line of the paragraph
text-align	Left, right, center, justify	Aligns the text to either, left, right, center or justified alignment.
text-decoration	underline, overline, line-through	The text-decoration property makes it is possible to add different “decorations” or “effects”to text. For example, you can underline the text, have a line through or above the text, etc.
letter-spacing	px ex. 6px	This property is used to give the specified spacing between the text characters.
text-transform	Capitalize, Uppercase, Lowercase, None	Capitalize : Capitalizes the first letter of each word. For example: “information technology” will be “Information Technology” Uppercase : Converts all letters to uppercase. For example: “ information technology” will be “INFORMATION TECHNOLOGY”. Lowercase : Converts all letters to lowercase. For example: “INFORMATION TECHNOLOGY” will be “ information technology”. None : No transformations - the text is presented as it appears in the HTML code.
Color	Color name or color code Ex. Red, #ff0000;	The color property describes the foreground color of a text to be displayed in browser.
background-color	Color name or color code Ex. Red, #ff0000;	The background-color property describes the background color of browser window.
background-image	url(“imagename.ext”) ex. url(“earth.gif”)	The background-image property is used to insert a background image in a web page.

background-repeat	repeat-x, repeat-y, repeat, no-repeat	repeat-x: The image is repeated horizontally repeat-y: The image is repeated vertically repeat: The image is repeated both horizontally and vertically no-repeat: The image is not repeated
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DHTML Important Points

DHTML is a combination of technologies used to create dynamic and interactive Web sites.

HTML - For creating text and image links and other page elements.

CSS - Style Sheets for further formatting of text and html, plus other added features such as positioning and layering content.

JavaScript - The programming language that allows you to access and dynamically control the individual properties of both HTML and Style Sheets

With DHTML you can create:

- Animation
- Pop-up menus
- Inclusion of Web page content from external data sources
- Elements that can be dragged and dropped within the Web page

Cascading Style Sheets (CSS) is a style sheet language used for describing the look and formatting of a document written in a markup language. It is a way to provide style to HTML. Whereas the HTML is the meaning or content, the style sheet is the *presentation* of that document.

The advantages of using CSS are:

- ❖ It controls layout of many documents from one single style sheet.
- ❖ It has more precise control of layout.
- ❖ It applies different layouts to different media-types.
- ❖ It has numerous advanced and sophisticated techniques to be applied on web pages.

Methods of applying CSS to an HTML document

In-line (the attribute style)

Internal (the tag style)

External (link to a style sheet)

Textbook Questions

A. Multiple choice questions

1. Which property describes how bold or “heavy” a font should be presented?

(a) Font-style (b) Font-size (c) Font-weight (d) Font-variant

Ans. (c) Font-weight

2. The units ‘___’ and ‘___’ allow the user to adjust the font size according to him/her.

(a) ‘#’ and ‘me’ (b) ‘%’ and ‘em’ (c) ‘\$’ and ‘es’ (d) All of the above

Ans. (b) ‘%’ and ‘em’

3. The _____ makes it possible to add different “decorations” or “effects” to text.

(a) Text Align property (b) Text Indent property
(c) Letter spacing property (d) None of the above

Ans. (d) None of the above

4. DHTML is a combination of _____ and _____.

(a) DOM and CSS (b) CSS and Conventional HTML
(c) HTML and JavaScript (d) None of the above

Ans. (c) HTML and JavaScript

5. _____ is a style sheet language used for describing the look and formatting of a document written in a markup language.
(a) Document Object Model (DOM) (b) Multimedia filters
(c) Cascading Style Sheets (CSS) (d) DHTML
Ans. (c) Cascading Style Sheets (CSS)
6. Which property is used to give the specified spacing between the text characters?
(a) Text Decoration (b) Letter Spacing
(c) Text Transform (d) None of the above
Ans. (b) Letter Spacing
7. The units 'px' and '____' make the font size absolute.
(a) 'pr' (b) 'pn' (c) 'pz' (d) 'pt'
Ans. (d) 'pt'
8. The _____ repeats the image both horizontally and vertically to cover the entire screen.
(a) Background Image property (b) Foreground Color property
(c) Background Color property (d) Background Repeat property
Ans. (d) Background Repeat property

B. Fill in the blanks:

1. Font-family style differentiates between _____, _____ and _____ font faces.
Ans. serif, Sans-serif, monospace
2. The font-variant property refers to the _____ variant of the font face.
Ans. **normal** or **small-caps**
3. CSS uses a numeric scale of multiples of _____ to _____.
Ans. 100 to 900
4. The CSS specification also allows browser to render any _____ value as normal.
Ans. invalid
5. The text-decoration has to be rendered with _____.
Ans. text
6. The _____ property allows you to add effects to text paragraphs by applying an indent to the first line of the paragraph
Ans. text-indent
7. Font-variant property is used to select _____ or _____ variants of a font
Ans. normal, small-caps
8. The _____ property describes the foreground color of a text to be displayed in browser
Ans. color
9. The property font-style defines the chosen font either in _____, _____ or _____.
Ans. normal, oblique, italic
10. The property _____ is used to apply a prioritized list of fonts in a web page
Ans. font-family
11. The text-transform property controls the _____ of a text.
Ans. capitalization
12. The _____ property describes the background color of browser window.
Ans. background-color
13. The _____ property is used to insert a background image in a web page.
Ans. background-image

C. Answer the following questions:

1. Explain CSS with reference to DHTML

- Ans. Cascading Style Sheets (CSS) is a style sheet language used for describing the look and formatting of a document written in a markup language. It is a way to provide style to HTML.
2. List some advantages and disadvantages of CSS.
 Ans. The advantages of using CSS are:
 - ❖ It controls layout of many documents from one single style sheet.
 - ❖ It has more precise control of layout.
 - ❖ It applies different layouts to different media-types.
 - ❖ It has numerous advanced and sophisticated techniques to be applied on web pages.
 The Limitations of CSS are: The problem with CSS is that it displays webpages very differently in the different browsers.
 3. What is the extension of a CSS file?
 Ans. .css
 4. Explain how would we embedded Style in your HTML.
 Ans. Using three ways: Inline, Internal or external
 5. List down the various font-family property ? Give an example of each.
 Ans. The property font-family is used to apply prioritized list of fonts in a web page
 Fonts family is divided into two categories:
 1. Family-name
 e.g. be “Arial”, “Times New Roman” or “Tahoma”.
 2. Generic family
 Generic families can be described as groups of family-names with uniformed appearances.
 Eg. Serif, sans-serif, monospace
 6. What do you mean by font-variant? Give example of each.
 Ans. font-variant can be either normal or small-caps.
 7. Explain font-weight?
 Ans. Used to make the text bold face.
 8. Mention the properties of CSS used to insert Letter spacing in a line.
 Ans. letter-spacing
 9. How many types of text alignments can be included in a CSS page.
 Ans. left, right, center, justify
 10. How the text in a webpage can be capitalized using CSS properties?
 Ans. Using text-transform property
 11. Explain the CSS properties to set the foreground and background color of the webpages.
 Ans. To set the foreground color we can use color property and to change the background color we can use background-color property.
 12. Which property of CSS controls the repetition of image inserted in a web page as a background?
 Ans. background-repeat, it can have repeat-x, repeat-y, repeat or no-repeat values

Board Exam Questions - Previous Years / Sample Papers

1. Write the CSS code to:
 - i. Apply 50px indentation to all text paragraphs marked with <p>.
 - ii. Make the text in the paragraphs marked with <p> tag “italics”.
 Ans.


```
p {
text-indent: 50px;
font-style: italic;
}
```
2. List the advantages of using CSS.
 Ans.
 - ❖It controls layout of many documents from one single style sheet.
 - ❖ It has more precise control of layout.
 - ❖ It applies different layouts to different media-types.
 - ❖ It has numerous advanced and sophisticated techniques to be applied on web pages.

3. Observe the following code carefully and answer the questions that follow:

```
<html>
<head>
<title>NETWORK SECURITY</title>
<style type="text/css">
li {
letter-spacing:10px ;
text-transform: lowercase;
}
</style>
</head>
<body> The Dos and Don'ts of network security
<ol>
<li> KEEP ANTI-VIRUS SOFTWARE UP TO DATE.</li>
<li> SAVE THE FILE TO COMPUTER OR A DISK.</li>
<li> RUN AN ANTI-VIRUS SCAN REGULARLY.</li>
</ol>
</body>
</html>
```

Predict the output of the above code while explaining the effects applied on in the CSS code.

Ans.

The output of the above code will be:

The Dos and Don'ts of network security

```
1. k e e p   a n t i - v i r u s   s o f t w a r e   u p   t o   d a t e .
2. s a v e   t h e   f i l e   t o   c o m p u t e r   o r   a   d i s k .
3. r u n   a n   a n t i - v i r u s   s c a n   r e g u l a r l y .
```

As per the output it is evident that the list elements specified as li have been displayed in Lower case due to :

text-transform: lowercase;

Also, there is a space of 10 pixels between each letter due to :

letter-spacing:10px ;

4. Body { background-image: url("learn.gif"); background-repeat: repeat-x }
In reference with the above CSS code, explain the usage of background-repeat property. Also mention the different values that can be used for background-repeat.

Ans.

With reference to the above CSS code the inserted background image learn.gif will repeat horizontally on the browser screen.

The four different values for background-repeat are as follows:

background-repeat: repeat-x : The image is repeated horizontally.

background-repeat: repeat-y : The image is repeated vertically.

background-repeat: repeat : The image is repeated both horizontally and vertically

background-repeat: no-repeat : The image is not repeated

5. List any 3 items that can be created using DHTML

Ans.

DHTML can be used to create the following:

- Animation
- Pop-up menus
- Inclusion of Web page content from external data sources
- Elements that can be dragged and dropped within the Web page

6. Write the CSS code to insert the image of the butterfly with name btfly.gif as a background image for a web page

Ans.

```
Body{ Background-image: url("btfly.gif"); }
```

7. Write the CSS code to change the foreground color of text to #ff0000 in h1 tags

Ans.

```
H1
{
  color:#ff0000;
}
```

8. Write the CSS code to display the text of td tag in centre

Ans.

```
TD
{
  Text-align: center;
}
```

9. Highlight the importance of DOM component of DHTML

Ans. Document Object Model (DOM) - The road map through which we can locate any element in an HTML document and use a scripting DHTML 3 language, such as JavaScript, to change the element's properties

10. Consider the following CSS code:

```
h1 {font-family: arial, comic sans-serif, "Times New Roman"};
```

Explain font-family.

Ans. font-family prioritize the font to be used in h1 tag. First it will look for arial tag, if it is not available then the text in h1 will be displayed in comic sans-serif and if comic-sans serif font is also not available then it will display the text in h1 in Times new roman font.

11. Observe the following code carefully and answer the questions that follow:

```
<html>
<head>
<title>Example</title>
<style type="text/css">
li {
letter-spacing:10px ;
text-transform:uppercase;
}
</style>
</head>
<body> Creation of a project
<ol>
<li>Analysis</li>
<li>Design </li>
<li>Coding</li>
<li>Testing</li>
<li>Maintenance</li>
</ol>
</body>
</html>
```

Predict the output of the above code while explaining the effects applied on

 in the CSS code.

Ans.

Output:

Example
Creation of a project 1. ANALYSIS 2. DESIGN 3. CODING 4. TESTING 5. MAINTENANCE

Effect of css on li tag

In tag the text is changed to upper case and there is a gap of 10 px between every letter in the text in li

- 12. Which of the following property is used to create a small-caps effect?
a) font-family b) font-style c) font-variant d) font-weight
Ans. font-variant
- 13. Multiple external style sheets cannot be referenced inside a single HTML document
a) True b) False
Ans. b) False
- 14. Which of the following is correct CSS syntax for using font property?
a) <p style="font: italic, bold, 25px;"> </p>
b) <p style="font-style: italic font-weight: bold font-size: 25px;">..... </p>
c) <p style="font: italic bold 25px;"> </p>
Ans. b) <p style="font-style: italic font-weight: bold font-size: 25px;">..... </p>
- 15. What are the three methods of implementing CSS?
a) Direct, Indirect, and External
b) Internal, External, and Embedded
c) Inline, Embedded, and External
Ans. c) Inline, Embedded, and External
- 16. table {color: blue;}
In the code snippet above, which part represents the property?
a) table b) color c) blue
Ans. b) color
- 17. Which of the following statements is TRUE for CSS
a) An external style sheet is ideal when the style is applied to many pages
b) An inline style sheet should be used when a single document has a unique style
c) Both A and B above
d) An external style sheet can be written in HTML
Ans. c) Both A and B above
- 18. Which CSS property describes the background image of a web page ?
Ans. Background-image
- 19. DHTML is a combination of which technologies ? Name them.
Ans. HTML and Javascript
- 20. What is the limitation of CSS ?
Ans. It is not browser compatible language and therefore displays different output in different browsers.
- 21. What is the difference in font-weight and font-style properties ?
Ans.

Font-Weight	Font-Style
1. Make the text bold or normal.	1. Makes the text italic, oblique or normal

- 22. Write any two advantages of using CSS.
 - 1. It can control layout of many documents using a single style sheet.
 - 2. It has more precise control of layout.
 - 3. It can apply different layout to different media-types.
 - 4. It has numerous advanced techniques to be applied on webpages
- 23. Name the CSS property which is used to :
 - (a) Insert a background image
 - (b) Control the behaviour of a background imagea) background-image
b) background-repeat
- 24. Write the code using CSS to generate the following output :
(a)
This Will Be Capitalised
THIS WILL BE IN UPPERCASE

This will have no effect
this will be in lowercase

(b) **This example is combining six css properties**

The above text is normal, bold, 40 pt, Arial.
Background colour is yellow and font colour is maroon.

Ans.

a)

i) `<p style="text-transform:capitalize;">This will be capitalized</p>`

ii) `<p style="text-transform:uppercase;">This will be in uppercase</p>`

iii) `<p style="text-transform:none;">This will have no effect</p>`

iv) `<p style="text-transform:lowercase">This will be in lowercase</p>`

b)

`<p style="font-weight:bold;font-size:40pt;font-family:arial;background-color:yellow;color:maroon;">This example is combining six css properties</p>`

25. Create an external style sheet "style.css" with the following specifications :

`<BODY>` : Font is Arial , Text is in blue colour

`<H1>` : Overerline and right aligned

`<P>` : Text is italicized, Font-weight should be bold

Also, write the code of HTML file where this file should be linked.

Ans:

Filename: styles.css

Body

```
{
    Font-family:Arial;
    Color: blue;
}
H1
{
    Text-decoration: underline;
    Text-align: right;
}
P
{
    Font-style: Italic;
    Font-weight: Bold;
}
```

Filename: home.html

```
<html>
  <head>
    <title>This is Home Page</title>
    <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>
</html>
```

26. State whether the following statements is/are *True/False* :

(I) font-family property is used to change the face of a font.

(II) font-variant property is used to create small-caps effects.

(i) (I) True, (II) False

(ii) (I) False, (II) True

(iii) (I) True, (II) True

(iv) (I) False, (II) False

Ans. (iii) (I) True, (II) True

27. What kind of pages get created from DHTML ?

- (i) Static (ii) Dynamic (iii) Hyper (iv) Global
 Ans. (ii) Dynamic
28. HTML is considered as a _____ language.
 (i) Programming
 (ii) OOP
 (iii) High Level
 (iv) Markup
 Ans. (iv) Markup
29. The software that can read and render HTML documents is
 (i) Server (ii) Compiler (iii) Interpreter (iv) Browser
 Ans. (iv) Browser
30. _____ connects web pages.
 (i) Connector (ii) Link (iii) Hyperlink (iv) None of the above
 Ans. (iii) Hyperlink
31. The different ways to associate styles with an HTML document is/are
 (i) Embedded CSS with <style> element
 (ii) Inline CSS style with attribute
 (iii) External CSS with <link> element
 (iv) All of the above
 Ans. (iv) All of the above
32. _____ property can be used to increase or decrease the space between words.
 (i) Space (ii) Word-spacing (iii) Word-space (iv) Both (ii) and (iii)
 Ans. (ii) Word-spacing
33. _____ property specifies an image to use as the background of an element.
 (i) Backg-img (ii) Backg-image (iii) Background-img (iv) Background-image
 Ans. (iv) Background-image
34. CSS stands for
 (i) Central Style Sheets (ii) Common Style Sheets
 (iii) Cascading Style Sheets (iv) Control Style Sheets
 Ans. (iii) Cascading Style Sheets
35. Advantage(s) of CSS is/are
 (i) Separation of document contents from document program
 (ii) Superior styles to HTML
 (iii) High performance
 (iv) All of the above
 Ans. (iv) All of the above
36. Style sheet appears as a value of the _____ attribute.
 (i) Script
 (ii) Sheet
 (iii) Style
 (iv) Jscript
 Ans. (iii) Style
37. Name one scripting language that is used as part of DHTML.
 Ans. Javascript
38. Write the full form of CSS.
 Ans. Cascading Style Sheet
39. What is an internal style sheet
 Ans.
 It includes the CSS codes using the HTML tag <style>.
 Example:
 <html>
 <head>
 <title>Example</title>
 <style type="text/css">
 body {background-color: #0000FF ;}
 </style>
 </head>

```
<body>
<p> The background is Blue.</p>
</body>
</html>
```

40. Which property in CSS describes how bold or “heavy” a font should be presented?
Ans. font-weight
41. Which property makes it is possible to add different “decorations” or “effects” to text.
Ans. text-decoration
42. Which property of CSS repeats the image both horizontally and vertically to cover the entire Screen.
Ans. background-repeat: repeat;
43. Which property describes the foreground color of a text to be displayed in browser?
Ans. color: red;
44. Which property is used to apply prioritized list of fonts in a web page.
Ans. Font-family
45. Which property is used to select normal or small-caps variants of a font?
Ans. font-variant
46. Which property controls the capitalization of a text?
Ans. text-transform
47. Which property allows you to add effects to text paragraphs by applying an indent to the first line of the paragraph?
Ans. text-indent
48. What is DHTML?
Ans. It is Dynamic Hypertext Markup Language. It is a combination of different technologies like: HTML, Javascript, CSS
49. What is the purpose of using DHTML?
Ans. To make animations, Menu popups, drag/drop feature of elements on a webpage etc.
50. Write any two features of DHTML
1. DHTML makes documents dynamic
 2. Web page reacts and change with the actions of the visitor.
 3. DHTML helps to exactly position any element in the window
 4. It can hide and show content as needed
51. Mention any two limitations of CSS
Ans.
1. CSS is very limited in browser compatibility
 2. We cannot perform any arithmetic or logical task.
52. Which two categories Fonts family is divided into?
Ans. Generic, family name
53. What would be the impact of including css file with the following code
- (a)
- ```
h1 {
text-decoration: underline;
}
```
- (b)
- ```
h2 {
text-decoration: overline;
}
```
- (c)
- ```
h3 {
text-decoration: line-through;
}
```
- Ans. a) the text in h1 tag will be underlined.  
b) The text in h2 tag will be overlined.  
c) the Text in h3 tag will be striked through like ~~hello~~
54. Write the values for background-repeat for the following
- (a) The image is repeated horizontally
  - (b) The image is repeated vertically

- (c) The image is repeated both horizontally and vertically
- (d) The image is not repeated

Ans.

- a) background-repeat: repeat-x;
- b) background-repeat: repeat-y;
- c) background-repeat: repeat;
- d) background-repeat: no-repeat;

55. What does HTML stand for?

- a) Hyperlinks and Text Markup Language
- b) Home Tool Markup Language
- c) Hyper Text Markup Language
- d) Hyper Text Mark Language

Ans. c) Hyper Text Markup Language

56. Choose the correct HTML tag for the largest heading

- a) <h6>
- b) <heading>
- c) <head>
- d) <h1>

Ans. d) <h1>

57. What is the correct HTML tag for inserting a line break?

- a) <br>
- b) <break >
- c) <lb>
- d) <hr>

Ans. a) <br>

58. What does vlink mean?

- a) visited link
- b) vlink
- c) active link
- d) hyperlink

Ans. a) visited link

59. What is the correct HTML for creating a hyperlink?

- a) <a name="">A</a>
- b) <a>B</a>
- c) <a href="http://www.example.com">example</a>
- d) <a url="http://www.example.com">example</a>

Ans. <a href="http://www.example.com">example</a>

60. How can you create an e-mail link?

- a) <mail href="a@b">
- b) <mail>a@b</mail>
- c) <a href="a@b">
- d) <a href="mailto:a@b.com">

Ans. d) <a href="mailto:a@b.com">

61. How can you make a list that lists the items with numbers?

- a) <ul>
- b) <list>
- c) <ol>
- d) <dl>

Ans. c) <ol>

62. What is the correct HTML for inserting an image?

- a) <image src="image.gif" alt="MyImage" >
- b) <img href="image.gif" alt="MyImage" >
- c) 
- d) <img alt="MyImage">image.gif</img>

Ans. c) 

**Network Security**  
**Theory : 05 Marks**  
**Textbook Questions**

**A. Multiple choice questions**

1. Which of the following is not an external threat to a computer or a computer network  
 (a) Ignorance (b) Trojan horses (c) Adware (d) Crackers  
**Ans. (a) Ignorance**
2. When a person is harrassed repeatedly by being followed, called or be written to he / she is a target of  
 (a) Bullying (b) Identity theft (c) Stalking (d) Phishing  
**Ans. (c) Stalking**
3. With genetic and genomic research which of the following issues is of specific concern  
 (a) Anonymity (b) Intellectual property  
 (c) Software piracy (d) Concerns about biochip implants  
**Ans. (b) Intellectual property**
4. Which of the following is a class of computer threat  
 (a) Phishing (b) DoS attacks (c) Soliciting (d) Stalking  
**Ans. (b) DoS attacks**
5. A lincense allows a user to use copyrighted material.  
 (a) True (b) False  
**Ans. (a) True**
6. It is a program or hardware device that filters the information coming through an internet connection to a network or computer system.  
 (a) Anti virus (b) Firewall (c) Cookies (d) Cyber safety  
**Ans. (b) Firewall**
7. It allow a visited website to store its own information about a user on the user's computer.  
 (a) Spam (b) Malware (c) Cookies (d) Adware  
**Ans. (c) Cookies**
8. It is stealing ideas or creations of others.  
 (a) Plagiarism (b) Piracy (c) Intellectual Property Rights (d) All of the above  
**Ans. (a) Plagiarism**
9. Hacking a computer is always illegal and punishable by law.  
 (a) True (b) False  
**Ans. (a) True**
10. Exploring appropriate and ethical behaviours related to online environments and digital media.  
 (a) Cyber ethics (b) Cyber safety (c) Cyber security (d) Cyber law  
**Ans. (a) Cyber ethics**
11. A license allows a user to use copyrighted material.  
 (a) In some situations this statement is correct  
 (b) This statement is not true at all.  
 (c) In is not necessary to use license.  
 (d) All the above statements are not applicable.  
**Ans. (a) In some situations this statement is correct**

**B. Answer the following questions:**

1. Differentiate between a workstation license and a site license.

| Workstation License                               | Site License                                    |
|---------------------------------------------------|-------------------------------------------------|
| 1. It permits the installation of a software only | 1. It permits the use of software in any number |

|                                                                                                     |                                                                                                          |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| in one computer.                                                                                    | of computers at a specified site.                                                                        |
| 2. Before installing on a different computer it must be uninstalled or removed from first computer. | 2. We can install the software in unlimited number of computers if we have taken unlimited site license. |

2. Write a short note on your understanding of 'cracking' a software.

**Ans.** Crackers modify or disable features of a software application. They usually mean to harm the software, the hardware using this software or the end user of the software.

3. What are the categories of Cyber crime. Explain them.

**Ans.**

1. **General Intrusions** → Hacking, spyware, phishing, pharming, Causing denial of service attacks

2. **Nuisances (usually non-violent activities)** → Sending spam, Changing web page text and images, Redirecting websites

3. **Personal Identity Theft (using someone else's name or credit)** → Phishing for private information, passwords, code numbers, Making unauthorized purchases with stolen credit cards or ID, Destroying personal reputation, Damaging personal credit ratings

4. **Theft of Intellectual Property (stealing ideas or creations of others)** → Downloading copyrighted music & videos, Plagiarism, cheating, Software piracy

5. **Physical or Mental Damage** → Cyberbullying, harassment, Cyberstalking, Sexual exploitation of minors, child pornography

6. **Terrorism** → Stealing military and private industry secrets – espionage, Brainwashing and recruiting new followers

4. Define the following terms:

(a) Spyware (b) Malware (c) Virus (d) Worms

**Ans.**

a) **Spyware** → Spyware is simply software that literally spies on what is being done on a computer. It can be done through cookies, key logger softwares, or a program that records everything that is done on the computer.

b) **Malware** → Malware is used to disrupt computer operation, gather sensitive information, or gain access to private computer systems. Some of the popular malwares are Viruses, Worms, Adware, Trojan Horse, Spyware

c) **Virus** → A computer virus is a program that replicates itself. Almost all viruses are attached to an executable file, which means the virus may exist on a computer but it actually cannot infect the computer unless one runs or opens the malicious program.

d) **Worms** → A worm is similar to a virus and is considered to be a sub-class of a virus. It spreads from computer to computer, as it has the capability to travel without any human action.

5. Read about ethical hacking and write a short note on your understanding of the topic.

**Ans.** Ethical hacking is getting into someone else's website or computer in an unauthorized manner but instead of damaging or stealing the data, we inform the owner about the vulnerabilities in his/her system or website.

6. Why cyber security should be taken care by the user while working on internet?

**Ans.** Cyber security should be taken care by the user so as to prevent our data from being stolen and keep our system away from malware and Denial of service attacks.

7. Discuss all the point which should be kept in mind while working on computers.

**Ans.**

1. Pay close attention to website URLs. Pay attention to the URLs of websites you visit.

2. Keep operating system, browser, anti-virus and other critical software up to date. Security updates and patches are available for free from major companies.

3. Turn off the option to automatically download attachments from your emails
4. Save and scan any attachments before opening them. If you have to open an attachment before you can verify the source, take the following steps:
  - i) Be sure your anti-virus software is up to date.
  - ii) Save the file to your computer or a disk.
  - iii) Run an anti-virus scan using your computer's software

8. What is Denial of Service attack? How it affects the systems performance?

Ans. **Denial of service (DoS) attacks** that are designed to prevent legitimate access to a system. It restricts the working of many of the services of the computer like Internet, File Access, Software access etc.

9. What is the difference between Shareware and Freeware softwares?

Ans.

| Shareware                                                                                       | Freeware                                                                   |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1. Copyright software's which are available free of cost but only for a limited period of time. | 1. Copyright software which are available free of cost for unlimited time. |
| 2. Needs to be purchased after the trial period have expired.                                   | 2. Need not be purchased as it is not time limited.                        |

10. Mention the list of the licenses used by the users.

Ans.

Proprietary license, GNU General Public Licenses, End User License Agreement (EULA), Workstation licenses, Concurrent use licenses, Site licenses, Perpetual licenses, Non-perpetual licenses, License with Maintenance

11. What do you mean by open source softwares? How are they different from Proprietary softwares?

| Open Source Softwares                   | Proprietary Softwares                                                |
|-----------------------------------------|----------------------------------------------------------------------|
| 1. Available along with source code.    | 1. Source code is not available                                      |
| 2. Is available free of cost            | 2. Is not available free of cost.                                    |
| 3. We can modify Open Source Softwares. | 3. We cannot modify proprietary software as source is not available. |
| 4. We can re-distribute it.             | 4. We cannot redistribute it.                                        |

12. How software cookies can be 'helpful' to both the user of the computer and the websites that created them.

Ans.

1. It helps the website to maintain a session with the user.
2. It helps the user to login without entering id and password, the next time.
3. It helps the website to know the user preferences and show content relevant to him/her.
4. It helps the user to view relevant advertisements/ news of his own choice.

13. Write some security measures that you could take to safeguard yourself over internet.

Ans.

1. Pay close attention to website URLs. Pay attention to the URLs of websites you visit.
2. Keep operating system, browser, anti-virus and other critical software up to date. Security updates and patches are available for free from major companies.
3. Turn off the option to automatically download attachments from your emails
4. Save and scan any attachments before opening them. If you have to open an attachment before you can verify the source, take the following steps:
  - i) Be sure your anti-virus software is up to date.
  - ii) Save the file to your computer or a disk.
  - iii) Run an anti-virus scan using your computer's software

C. **Categorize the following under ethical / safety / security precaution**

1. Do not share your password - **Safety**

2. Do not use foul language. - **Ethical**
3. Immediately report any suspect data or security breaches to your supervisor and/or authorities. - **Safety**
4. Install firewalls and antivirus softwares - **Security**
5. Do not copy information from the Internet and claim it as yours (plagiarism). - **Ethical**
6. Be wary of strangers and cautious of potentially misleading or false information. - **Safety**
7. Manage your computer settings to allow only data that comes from a known or safe place - **Security**
8. Do not download copyrighted materials. - **Ethical**
9. Download only trusted applications from reputable sources or marketplaces - **Safety**
10. Pay attention to the URLs of websites you visit - **Security**
11. Do not use someone else's password or break into his computer. - **Ethical**
12. Restrict access and make personal information secure to prevent identity theft. - **Safety**

**D. State whether the following statements are true or false**

1. Hacking a computer is always illegal and punishable by law. - **True**
2. A license allows a user to use copyrighted material. - **True**
3. Software can only be licensed for a specific period of time. - **False**
4. A firewall is a virtual 'wall' that protects data on computers and computer networks. - **True**
5. Cyber law oversees only crimes that are committed by computers - **False**
6. Crackers use physical tools to break into a computer and steal data. - **False**

**Board Exam Questions – Previous Years / Sample Papers**

1. It allows a visited website to store its own information about a user on the user's computer.  
i) Spam ii) Malware iii) Cookies iv) Adware  
Ans. iii) Cookies
2. Define Shareware.  
Ans. Shareware is a proprietary software which is initially provided free of charges to users for a limited period on a trial basis, if the user decides to use it after the trial period he /she needs to pay for it.
3. What does Open-source in Open- Source software mean?  
Ans. Open-source software (OSS) is computer software with its source code made available. It is very often developed in a public, collaborative manner. A license for open sources software allows the end user to study, change and distribute the software for any purpose hence it is termed as Open Source.
4. Write any four exclusive rights that a copyright owner possesses?  
Ans.
  1. Fix or store the information in a tangible form.
  2. Reproduce the copyrighted material.
  3. Sell, rent, lease, or otherwise distribute copies of the copyright work to the public.
  4. Publicly perform and display the copyrighted material.
  5. Prepare derivative works based on the copyrighted material.
5. What is a firewall?  
Ans. A firewall is a program or hardware device that filters the information coming through an internet connection to a network or computer system. If incoming information does not pass the rules stored in the firewall, it is not allowed through.
6. Identify the following:
  - i. Software that literally spies on what is being done on a computer.
  - ii. It seeks to compromise a DNS server so that users can be redirected to unsafe websites.
 Ans. i) Spyware ii) DNS Poisoning
7. Name any two activities that can be considered as a Theft of Intellectual Property.  
Ans. Downloading copyrighted music & videos, Plagiarism, cheating, Software piracy
8. Why is Phishing termed as a form of identity theft?

- Ans. Phising is the process of trying to tempt the target to provide personal information which can be used to perform illegal actions so it is a form of identity theft.
9. Proprietary software companies get a copyright for all of its software. What is its utility?  
 Ans. It helps the company to get exclusive rights for that software and protect the software from being used illegally.
10. Name the two of the most common Web attacks that attempts to breach a website.  
 Ans. Session hijacking, DNS poisoning
11. Who is a Netizen?  
 Ans. Netizens are the inhabitants of the internet and use it as an extension of their physical world.
12. Explain Workstation Licence.  
 Ans. It is a license given for a single computer. A software can only be installed in one computer.
13. Differentiate between Open source , Freeware and Shareware.  
 Ans. Open source software are available free of cost along with the source code. They can be modified and redistributed.  
 Freeware are copyrighted softwares available free of cost for unlimited time but without any source code.  
 Shareware software are copyright software which are available free of cost but for a limited time period.
14. List any 4 cyber safety guidelines which should be followed by all the Netizens.  
 Ans.
  1. Set secure passwords and don't share them with anyone.
  2. Don't share organizational data or personal information.
  3. Immediately report any suspect data or security breaches to your supervisor and/or authorities.
  4. Download only trusted applications from reputable sources or marketplaces.
  5. Be wary of strangers and cautious of potentially misleading or false information
15. Term to describe harassing, taunting, or teasing online is  
 a) Cyber bullying b) Flaming c) Trolling  
 Ans. a) Cyber bullying
16. Tricking users into revealing personal information such as passwords and bank account numbers by way of emails pretending to be from actual companies  
 a) Phishing b) Spyware c) Bird Watch  
 Ans. a) Phishing
17. Using someone else's work and taking credit for it  
 a) Fair Use b) Ethical c) to plagiarize  
 Ans. c) to plagiarize
18. Malicious that enters a computer and tracks and gathers personal information  
 a) Phishing b) Spyware c) Malware  
 Ans. b) Spyware
19. What is meant by cyber laws?  
 Ans. Laws which protect the users against the cyber crime are cyber laws
20. What is cyber space ?  
 Ans. Cyberspace is a man made world that is constantly evolving. It differs from the static physical world as it has no boundaries, no geographical mass, and of course, no gravity.
21. What all is covered under software copyright ?  
 Ans. A software copyright protects all source code, written text materials, graphic images/ designs, drawings, any linked sound, video files or films.
22. What are cookies ?  
 Ans. Cookies allow a visited website to store its own information about a user on the user's computer.
23. What do you suggest a person must do, the actions he/she must take, in order to ensure security of personal information at places like cyber cafe ?  
 (i) Do not use cyber cafe for transactions.  
 (ii) If possible, ensure you delete cookies and browser history.  
 (iii) No need to do anything.



- (iv) Both (i) and (ii)  
Ans. (iv) Both (i) and (ii)
24. Which of the following is known as Malicious software ?  
(i) Illegalware (ii) Badware (iii) Malware (iv) Maliciousware  
Ans. (ii) Malware
25. To protect a computer from virus, you should install \_\_\_\_\_ in your computer.  
(i) Backup wizard (ii) Disk cleanup (iii) Antivirus (iv) Disk defragmenter  
Ans. (iii) Antivirus
26. Which of the following is/are threats for electronic payment systems ?  
(i) Computer worms (ii) Computer virus (iii) Trojan horse (iv) All of the above  
Ans. (iv) All of the above
27. Firewalls are used to protect against \_\_\_\_\_ .  
(i) data driven attacks (ii) fire attacks (iii) virus attacks (iv) unauthorized access  
Ans. (iv) unauthorized access
28. Which of the following describes the programs that can run independently from system to system and disrupt computer communication?  
(i) Viruses (ii) Trojans (iii) Droppers (iv) Worms  
Ans. (iv) Worms
29. Name the following
1. The stored information that allow a visited website to store its own information about a user on the user's computer
  2. A program that replicates itself. A computer virus attaches itself to a program or file to help it spread from one computer to another.
  3. It refers to computer software that is provided usually for free but contains advertisements.
- Ans.1. Cookies 2. Virus 3. Adware
30. Differentiate between Hackers and crackers  
Ans.  
Hackers are people with computer programming skills who use their knowledge to gain unauthorized access to data in a system or computer.  
Crackers modify or disable features of a software application. They usually mean to harm the software, the hardware using this software or the end user of the software.