Registration No.....

Bhartiya Skill Development University
School of Computing Skills
1st Semester / 1st In-Sem. Examinations
B. Voc. Program, Winter Semester (2019)

ITN 1101 Introduction to Computers

Time: 1 Hour

Max. Marks: 20

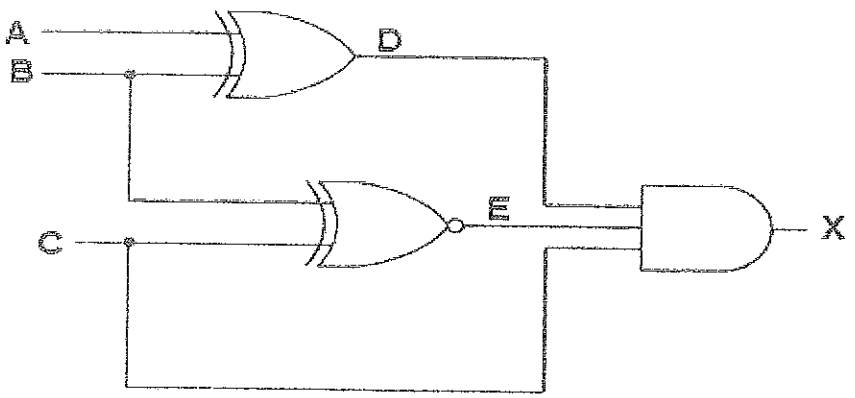
Answer all the questions

Section – A **(5X1 = 05 Marks)**

1. Which one of the following is the full form of WWW?
   i) World Wide Web ii) World White Web iii) White World Web iv) None of the Above
2. Which one of the following is the full form of GUI?
   i) Green User Interface ii) Graphical User Interface iii) Graphical User Index iv) None of them
3. Which one of the following logic gates can be used to realize all possible combinational logic functions?
   i) AND ii) OR iii) XOR iv) NOR
4. Which one of the following output of a logic gate is '1' when all its inputs are at logic '0'.
   i) NAND/XOR ii) OR/XNOR iii) NOR/XNOR iv) AND/XOR
5. Which one of the following is NOT an operating system?
   i) Linux ii) Microsoft Vista iii) Microsoft Word iv) Max OS X

Section – B **(3x2=6 Marks)**

1. What is the required input condition (A,B,C) to make the output X=1 in Figure 1?



Explain with the help of a truth table.

Registration No.: .....

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of Computing Skills

Mid Term Exam

B. Voc. Program, Water (2018-19)

ITN 1101 Introduction to Computers

Answer Key

Section – A

1. What is WWW?

   Ans. i) World Wide Web
2. Which is GUI?

   Ans. ii) Graphical User Interface
3. Indicate which of the following logic gates can be used to realize all possible combinational logic functions.

   Ans. iv) NOR
4. The output of a logic gate is '1' when all its inputs are at logic '0'. The gate is either:

   Ans. iii) NOR/XNOR
5. Which of the following is NOT an operating system?

   Ans. iii) Microsoft Word

Section – B

1. What is the required input condition (A,B,C) to make the output X=1 in Figure 1? Explain with the help of a truth table.

Ans. (1,1,0)

A	B	C	D	E	X
0	0	0	0	0	0
0	0	1	0	1	0
0	1	0	1	1	0
0	1	1	1	0	0
1	0	0	1	0	0
1	0	1	1	1	1
1	1	0	0	1	0
1	1	1	0	0	0

2. What is the output of the circuit shown in figure? Explain with the help of a truth table.

Ans.

A	B	A'	B'	C	D	X
0	0	1	1	1	1	0
0	0	1	1	1	1	0
0	1	1	0	0	0	0
0	1	1	0	0	0	0
1	0	0	1	0	0	0
1	0	0	1	0	0	0
1	1	0	0	1	1	1
1	1	0	0	1	1	1

Section – C

1. What are the various generations of a computer? Explain in Detail.

Ans. There are five generations of Computer.

1) First Generation (1946-1954):
   - Vacuum Tubes Technology used for internal operations.
   - Supported Machine Language only.
   - Very Costly and large space required.
   - Some Computer of this generation were: ENIAC, EDVAC.
2) Second Generation (1955 -1964):
   - Transistors Technology used for internal operations.
   - Magnetic Tapes and Disk use for secondary storage device.
   - Some Computer of this generation were: IBM 1620, IBM 1401.
3) Third Generation (1964 - 1977):
   - Integrated Circuits (IC)Technology used for internal operations.
   - Reduction in size and cost.
   - Some Computer of this generation were: IBM – 360 series, Honeywell – 6000 series.
4) Fourth Generation (1978 - Present):
   - Large Scale Integration (LSI) and Very Large-Scale Integration (VLSI) Technology are used for internal operations.
   - All the higher-level language like C and C++, DBASE etc. are used in this generation.
   - Some Computer of this generation are: STAR 1000, CRAY -I (Super Computer).

5) Fifth Generation (Present - Future):
   - VLSI and ULSI use for internal operations.
   - Devices based on Artificial Intelligence are still in development.

2. Explain the functioning of Half Adder in detail using truth table and circuit diagram.

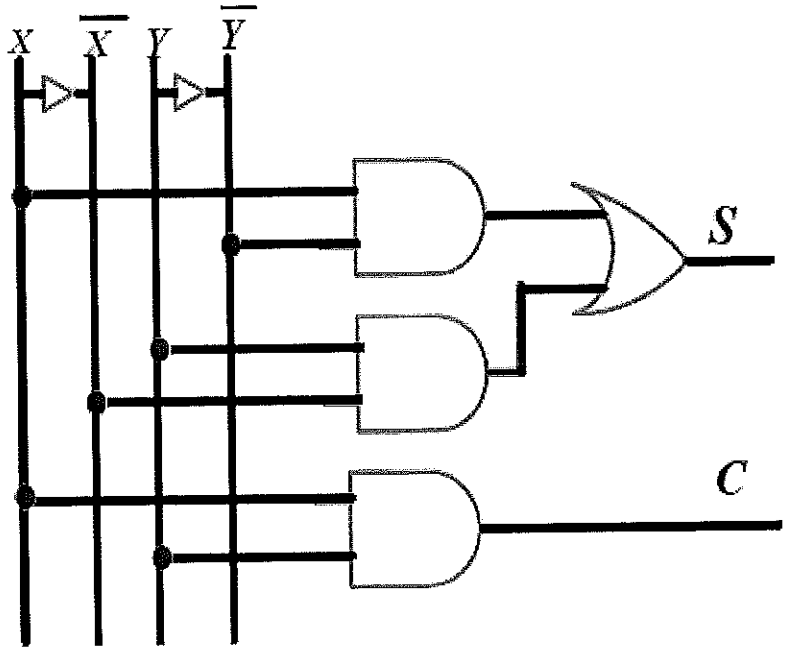
Ans.

Half Adder is a combinational circuit that performs the addition of two bits, this circuit needs two binary inputs and two binary outputs. The two outputs are called C and S i.e. carry and sum.

$$S = X'Y + XY'$$

$$C = XY$$

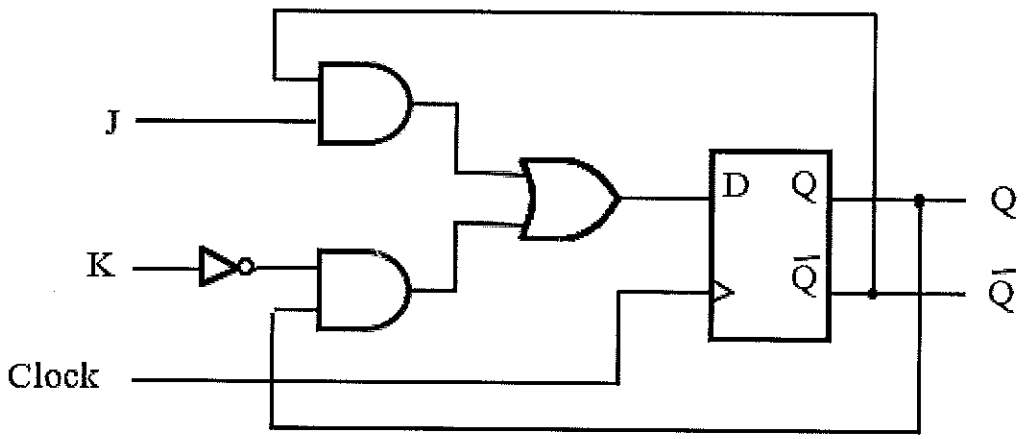
Inputs		Outputs	
X	Y	C	S
0	0	0	0
0	1	0	1
1	0	0	1
1	1	1	0



3. What is a JK Flip Flop? Explain with the help of Truth table.

Ans.

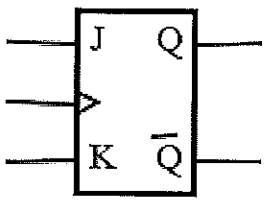
- **A versatile circuit that can be used both as a SR flip-flop and as a T flip flop.**
- **If J=0 and S =0 it stays in the same state.**
- **Just like SR It can be set and reset (J=S and K=R).**
- **If J=K=1 then it behaves as a T flip-flop.**



(a) Circuit

J	K	Q (t+1)
0	0	Q (t)
0	1	0
1	0	1
1	1	$\overline{Q}$ (t)

(b) Truth table



(c) Graphical symbol

Registration No.....

Bhartiya Skill Development University
School of Computing Skills
1st Semester / 1st In-Sem. Examinations
B. Voc. Program, Winter Semester (2019)

ITN1102 Computer Assembly & Peripheral Installation **Time: 1 Hour**

Max. Marks: 20

Instructions: Attempt all questions.

SECTION A **(5x1=5 Marks)**

1. Which one of the following is the sequence in the CPU for each instruction of program in memory?
   a. decode - fetch - execute sequence
   b. execute - store - decode sequence
   c. fetch - decode - execute sequence
   d. fetch - execute - decode sequence

2. Which one of the following are the units of Central Processing Unit (CPU) ?
   a. control unit
   b. arithmetic and logic unit
   c. main store
   d. all of above
3. Which one of the following is the full form of SMPS .
   a. Switch Mode Power Supply
   b. Simple Mode Power Supply
   c. Switch Means Power Supply
   d. None of the above
4. Which one of the following is NOT a type of motherboard expansion slot?
   a. ISA b. PCI c. AGP d. ATX
5. Which one of the following function can a computer ALU perform?
   a. addition
   b. subtraction
   c. multiplication
   d. All of the above

Section-B **(3x2) Marks**

1. Name 3 input and 3 output devices of computer?
2. What is memory in computer and write its types?
3. What gives your computer power? Discuss.

Section-C **(3x3) Marks**

1. Give difference between RAM and ROM?
2. Explain CPU and its components with a block diagram.
3. Describe the different ports in a motherboard and explain what they are used for.

ITN1002 Question Paper with Answers

Registration No.....

SCHOOL OF IT (Networking)

FIRST IN-SEMESTER EXAMINATION – 2018

SUMMER SEMESTER, B. VOC. PROGRAM

ITN1002 Computer Assembling & Peripheral Installation

Time: 1 Hour

Max. Marks: 20

Instructions: Attempt all questions.

Section-A Objective Type Questions **(5x1) Marks**

1. For each instructions of program in memory the CPU goes through a

   a. decode - fetch - execute sequence
   b. execute - store - decode sequence
   c. fetch - decode - execute sequence
   d. fetch - execute - decode sequence

   Ans : c

2. Which of the following a Central Processing Unit (CPU) consists of
   a. control unit
   b. arithmetic and logic unit
   c. main store
   d. all of above

   Ans : d

3. Which of the following SMPS stands for
   a. Switch Mode Power Supply
   b. Simple Mode Power Supply
   c. None of the above

   Ans : b

4. Which of the following is NOT a type of motherboard expansion slot?
   a. ISA
   b. PCI
   c. AGP
   d. ATX

   Ans : b

5. Which of the following a computer, ALU can perform?
   a. addition

b. subtraction
c. multiplication
d. All of the above
Ans : d

Section-B Short-Answer Type Questions **(3x2) Marks**

1. Name 3 input devices and 3 output devices
Ans : **Input device:** Keyboard, mouse, joysticks
Output Device: Monitor, Printer, Speaker
2. What is memory in computer and write its types?
Ans : A memory is just like a human brain. It is used to store data and instructions. Computer memory is the storage space in the computer, where data is to be processed and instructions required for processing are stored. The memory is divided into large number of small parts called cells. Each location or cell has a unique address, which varies from zero to memory size minus one. For example, if the computer has 64k words, then this memory unit has 64 * 1024 = 65536 memory locations. The address of these locations varies from 0 to 65535.

Memory is of three types –

i. Cache Memory
ii. Primary Memory/Main Memory
iii. Secondary

3. MemoryWhat gives your computer power?
Ans : SMPS

Section-C Essay Type Questions **(3x3) Marks**

1. **What is the difference between ROM and RAM?**
Ans :

BASIS FOR COMPARISON	RAM	ROM
Basic	It is a read-write memory.	It is read only memory.
Use	Used to store the data that has to be currently processed by CPU temporarily.	It stores the instructions required during bootstrap of the computer.
Volatility	It is a volatile memory.	It is a nonvolatile memory.
Stands for	Random Access Memory.	Read Only Memory.
Modification	Data in ROM can be modified.	Data in ROM can not be modified.
Capacity	RAM sizes from 64 MB to 4GB.	ROM is comparatively smaller than RAM.

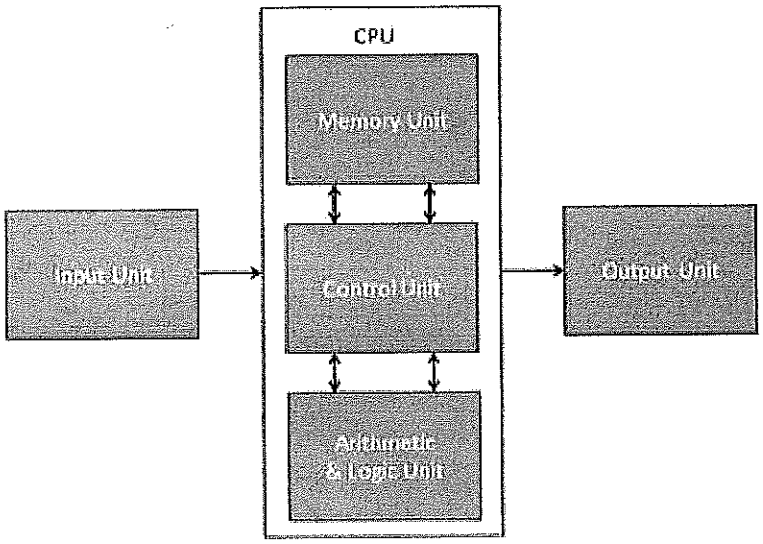
1. **Explain CPU and its components with block diagram?**
Ans : Central Processing Unit (CPU) consists of the following features –

- CPU is considered as the brain of the computer.
- CPU performs all types of data processing operations.

- It stores data, intermediate results, and instructions (program).
- It controls the operation of all parts of the computer.

CPU itself has following three components.

- Memory or Storage Unit
- Control Unit
- ALU(Arithmetic Logic Unit)



2. **Describe each of the different ports of motherboard and explain what they are used for?**

Ans : Serial Port

- Used for external modems and older computer mouse
- Two versions: 9 pin, 25 pin model
- Data travels at 115 kilobits per second

Parallel Port

- Used for scanners and printers
- Also called printer port
- 25 pin model
- IEEE 1284-compliant Centronics port

PS/2 Port

- Used for old computer keyboard and mouse
- Also called mouse port
- Most of the old computers provide two PS/2 port, each for the mouse and keyboard
- IEEE 1284-compliant Centronics port

Universal Serial Bus (or USB) Port

- It can connect all kinds of external USB devices such as external hard disk, printer, scanner, mouse, keyboard, etc.
- It was introduced in 1997.
- Most of the computers provide two USB ports as minimum.
- Data travels at 12 megabits per seconds.

- USB compliant devices can get power from a USB port.

VGA Port

- Connects monitor to a computer's video card.
- It has 15 holes.
- Similar to the serial port connector. However, serial port connector has pins, VGA port has holes.

Power Connector

- Three-pronged plug.
- Connects to the computer's power cable that plugs into a power bar or wall socket.

Firewire Port

- Transfers large amount of data at very fast speed.
- Connects camcorders and video equipment to the computer.
- Data travels at 400 to 800 megabits per seconds.
- Invented by Apple.
- It has three variants: 4-Pin FireWire 400 connector, 6-Pin FireWire 400 connector, and 9-Pin FireWire 800 connector.

Modem Port

- Connects a PC's modem to the telephone network.

Ethernet Port

- Connects to a network and high speed Internet.
- Connects the network cable to a computer.
- This port resides on an Ethernet Card.
- Data travels at 10 megabits to 1000 megabits per seconds depending upon the network bandwidth.

Registration No.....

Bhartiya Skill Development University
School of Computing Skills
1st Semester / 1st In-Sem. Examinations
B. Voc. Program, Winter Semester (2019)

ITN 1104, Basic Computer Networking

Time: 1 Hour

Max. Marks: 20

Instruction: Write neatly and draw diagrams where necessary.

Section – A

05X01 = 05 Marks

Q1. Which one of the following is the size of MAC Address? A. 16-bits B. 32-bits C. 48-bits D. 64-bits	Q2. Which one of the following is correct? How many layers does OSI Reference Model has? A. 4 B. 5 C. 6 D. 7
Q3. Which of the following is the meaning of Straight-through Cable? A. Four wire pairs connect to the same pin on each end B. The cable Which Directly connects Computer to Computer C. Four wire pairs not twisted with each other D. The cable which is not twisted	Q4. Which one of the following is correct? How many layers are in the TCP/IP model? A. 4 layers B. 5 layers C. 6 layers D. 7 layers
Q5. Which of the following is called the Physical or logical arrangement of network? a) Topology b) Routing c) Networking d) None of the mentioned	

Section – B

03X02 = 06 Marks

Q1. What is multiplexing? Explain.
Q2. Describe Network Topology. What are its main types?
Q3. What do you understand by flow control? Discuss.

Section – C

03X03 = 09 Marks

Q1. What are the layers in OSI Reference Models? Describe the function of each layer briefly.
Q2. What are the applications of Computer Networks?
Q3. What are the different types of media used for transmission of data. Briefly explain each one of them.

School of IT(Networking

Semester- 1, 1st In-Sem Examination

B. Voc. Program, Summer (2018-19)

Course Code: ITN 1104 **Time: 1 Hour**

Course Name: Basic Computer Networking **Max. Marks: 20**

Instruction: Write neatly and draw diagram where necessary.

Section - A

A1. C

A2. D

A3. A

A4. A

A5. A

Section – B

A6. Multiplexing is the process of dividing a link, the physical medium, into logical channels for better efficiency. Here medium is not changed but it has several channels instead of one. It can also be defined as combining various smaller channels in to one large capacity channel for better utilization of band width.

A7. Network Topology refers to the layout of a computer network. It shows how devices and cables are physically laid out, as well as how they connect to one another. Main Type of topologies are:

1. Star
2. Bus
3. Tree
4. Mesh

A8. It is the regulation of sender's data rate so that the receiver buffer doesn't become overwhelmed i.e. flow control refers to a set of procedures used to restrict the amount of data that the sender can send before waiting for acknowledgment.

Section – C

A9. Given below are the seven layers of OSI Reference Models:

#1) Physical Layer (Layer 1): Physical Layer converts data bits into electrical impulse or radio signals. *E.g.* Ethernet. It uses either guided on unguided media for transmission of bits.

#2) Data Link Layer (Layer 2): At Data Link layer, data packets are encoded and decoded into bits and it provides a node to node data transfer. Data Link Layer also detects the errors occurred at Layer 1.

#3) Network Layer (Layer 3): Network Layer transfers variable length data sequence from one node to another node in the same network. This variable length data sequence is also known as "Datagrams".

#4) Transport Layer (Layer 4): It transfers data between nodes and also provides acknowledgment of successful data transmission. It keeps track of transmission and sends the segments again if the transmission fails.

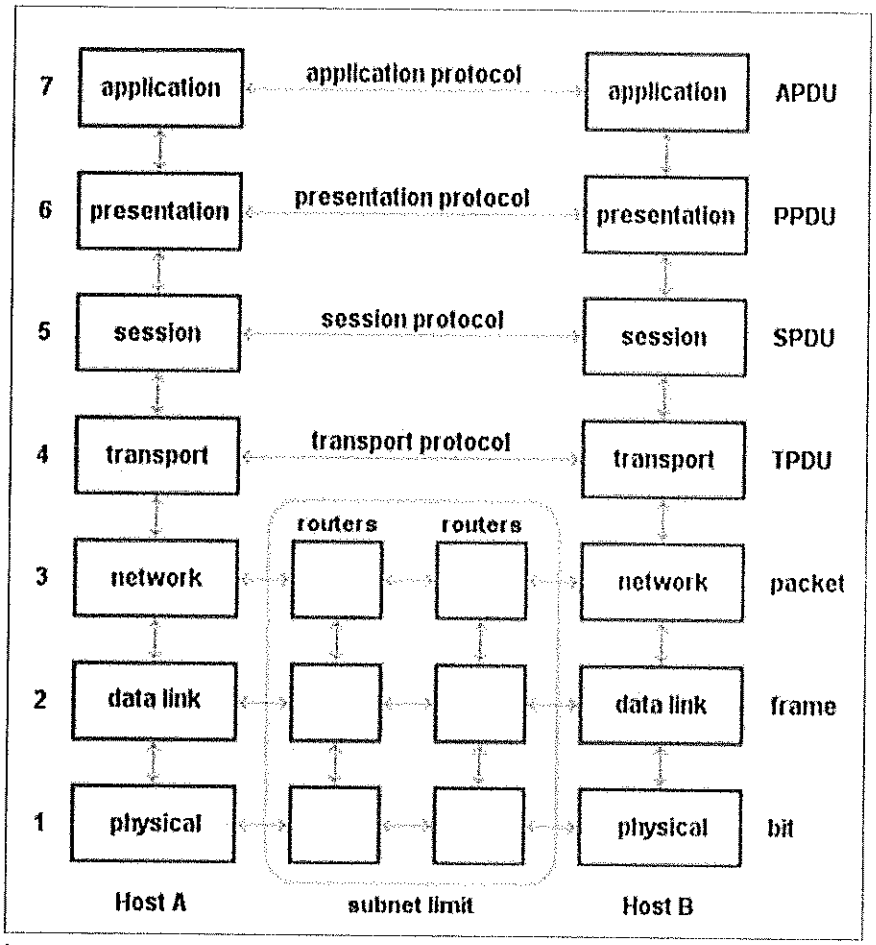


image source: OSI Reference Model

#5) Session Layer (Layer 5): Session Layer manages and controls the connections between computers. It establishes, coordinates, exchange and terminates the connections between local and the remote applications.

#6) Presentation Layer (Layer 6): It is also called as "Syntax Layer". Layer 6 transforms the data into the form in which the application layer accepts.

#7) Application Layer (Layer 7): This is the last layer of OSI Reference Model and is the one which is close to the end user. Both end-user and application layer interacts with the software application. This layer provides services for email, file transfer etc.

A10. 1. Information:

One of the applications of computer networks is the ability to provide access to remote information.

• Pay bills; carry out transactions on bank accounts etc.

• Shop from home by inspecting the catalogs of thousands of companies available online.

• Ask the newspaper for full information about your interesting topics such as corrupt politicians, big fires, football and so on.

• Access information about health, science, art, business, cooking, sports, travel, and government and so on. All this is available on the information systems like the World Wide Web (WWW).

2. Communication:

The popular application of computer networks is electronic mail or e-mail which widely used by millions of people to send and receive text messages. With real-time e-mail, remote users can Communicate even by see and hear each other at the same time. It is also possible to have virtual meetings called videoconference on-line among remote users.

3. Entertainment:

A huge and growing application is entertainment. It entertains people by allowing video demand, and has multiple real-time games etc.

A11. There are two types of transmission media :

- Guided (Wire line)
- Unguided(Wireless)

Guided Media :

- Unshielded Twisted Pair (UTP)
- Shielded Twisted Pair
- Coaxial Cable
- Optical Fiber

Unshielded Twisted Pair (UTP) : UTP is the copper media, inherited from telephony, which is being used for increasingly higher data rates, and is rapidly becoming the de facto standard for horizontal wiring, the connection between, and including, the outlet and the termination in the communication closet.

A Twisted Pair is a pair of copper wires, with diameters of 0.4-0.8 mm, twisted together and wrapped with a plastic coating. The twisting increases the electrical noise immunity, and reduces the bit error rate (BER) of the data transmission.

Shielded Twisted Pair (STP) : STP is heavier and more difficult to manufacture, but it can give better data rates.

Coaxial Cable: Coaxial cable is a two-conductor cable in which one conductor forms an electromagnetic shield around the other. The two conductors are separated by insulation. It is a constant impedance transmission cable. This media is used in base band and broadband transmission.

Optical Fiber : Optical fiber consists of thin glass fibers that can carry information at frequencies in the visible light spectrum and beyond. The typical optical fiber consists of a very narrow strand of glass called the core. Around the core is a concentric layer of glass called the cladding. All long haul transmission links are being replaced by Fibers because of its large capacities.

Unguided Media: In Unguided transmission media the data signals flow through the air. They are not guided or bound to a channel to follow. Following are unguided media used for data communication.

- Radio Transmission
- Microwave
- Satellite Communication

- RF Propagation: There are three types of RF (radio frequency) propagation :

- Ground Wave
- Ionospheric
- Line of Sight (LOS)

Up to 3 Mhz are ground waves which follows the curvature of the Earth. AM radio is an example of ground wave propagation.

Ionospheric propagation bounces off of the Earth's ionospheric layer in the upper atmosphere in the frequency range of 3-30 MHz.

Frequencies above 30 MHz provides Line of sight propagation. The receive station must be in the view of the transmit station. It is limited by the curvature of the Earth for ground-based stations (40 -

100 km, from horizon to horizon). Examples of line of sight propagation are: FM radio, microwave and satellite.

Satellite : Satellites are transponders (units that receive on one frequency and retransmit on another) that are set in geostationary orbits directly over the equator. These geostationary orbits are 36,000 km from the Earth's surface.

Registration No.....

Bhartiya Skill Development University
School of Computing Skills
1st Semester / 1st In-Sem. Examinations
B. Voc. Program, Winter Semester (2019)

ITN 1105 Basics of Operating System **Time: 1 Hour**

Max. Marks: 20

Instructions: **Attempt all questions.**

Section-A Objective Type Questions **(5x1) Marks**

1. Which one of the following parses a user command ?
   (a) Kernel
   (b) BIOS
   (c) Shell
   (d)Application Program

2. Which one the following is called text based command line interface in Windows?
   (a) Windows
   (b) Command Prompt
   (c) Editor
   (d) Desktop

3. Which one of the following acts as a Resource Manager?
   (a) Hard disk
   (b) Application Program
   (c) Threads
   (d) Operating System

4. In which one of the following is the Kernel of the OS loaded
   (a) Arithmetic Logical Unit and Control Unit
   (b) Read Only Memory
   (c) Hard Disk Drive
   (d) RAM

5. Which one of the following is an auxiliary storage device
   (a) RAM
   (b) ROM
   (c) Hard Disk Drive
   (d) Keyboard

Section-B Short-Answer Type Questions **(3x2) Marks**

1. What are DOS wild card characters? Give at least one example of each.
2. What are internal and external commands? Give at least one example of each command.
3. What are the main Operating System functions?

Section-C Essay Type Questions **(3x3) Marks**

1. With the help of a neat diagram, explain the state transition diagram of an Operating System.
2. What are Clustered Systems? Explain three types of clustering.
3. What are Multiprocessor Systems? List some of their advantages.

Registration No: .....

SCHOOL OF COMPUTING SKILLS

FIRST IN-SEMESTER EXAMINATION – 2019

WINTER SEMESTER, B. VOC. PROGRAM

ITN 1105 Basics of Operating System **Time: 1 Hour**

Max. Marks: 20

Instructions: Attempt all questions.

Section-A Objective Type Questions **(5x1) Marks**

1. Which one of the following parses a user command ?
   (a) Kernel
   (b) BIOS
   (c) Shell
   (d)Application Program
   Ans: (c)
2. Which one the following is called text based command line interface in Windows?
   (a) Windows
   (b) Command Prompt
   (c) Editor
   (d) Desktop
   Ans: (b)
3. Which one of the following acts as a Resource Manager?
   (a) Hard disk
   (b) Application Program
   (c) Threads
   (d) Operating System
   Ans: (d)
4. In which one of the following is the Kernel of the OS loaded
   (a) Arithmetic Logical Unit and Control Unit
   (b) Read Only Memory
   (c) Hard Disk Drive
   (d) RAM
   Ans: (d)
5. Which one of the following is an auxiliary storage device
   (a) RAM
   (b) ROM
   (c) Hard Disk Drive
   (d) Keyboard
   Ans: (c)

Section-B Short-Answer Type Questions **(3x2) Marks**

1. What are DOS wild card characters? Give at least one example of each.

   Ans:

   The characters ? and * are known as wild card characters and can be used to affect multiple files with a single command.
   The ? means any single character.

   copy c:\temp\notes??.doc d:\temp

   means copy any Word file that begins with the word "notes" with exactly two other characters, like "notes01.doc", "notesAB.doc", etc.

   The "*" wildcard replaces any number of characters.

copy c:\temp\notes.* d:\temp
(copy all files with the name "notes" and any extension.)

copy *.doc c:\temp
(copy all files with a "doc" extension in the current directory.)

2. What are internal and external commands? Give at least one example of each command.

   Ans:

   Internal Commands are those commands which are contained in the shell (cmd.exe), i.e., these commands are inbuilt in the shell, whereas, the external commands are those commands whose file exists on the drive with .exe or .com extension.

   Example:

   Internal Commands: CD, RD, MD, COPY, DIR etc.

   External Commands: CHKDSK, EDIT, Notepad etc.

3. What are the main Operating System functions?

   Ans: The main Operating System functions are given below:

   1. It boots the computer

   2. It performs basic computer tasks e.g. managing the various peripheral devices e.g. mouse, keyboard

   3. It provides a user interface, e.g. command line, graphical user interface (GUI)

   4. It handles system resources such as computer's memory and sharing of the central processing unit(CPU) time by various applications or peripheral devices.

   5. It provides file management which refers to the way that the operating system manipulates, stores, retrieves and saves data.

   6. Error Handling is done by the operating system. It takes preventive measures whenever required to avoid errors.

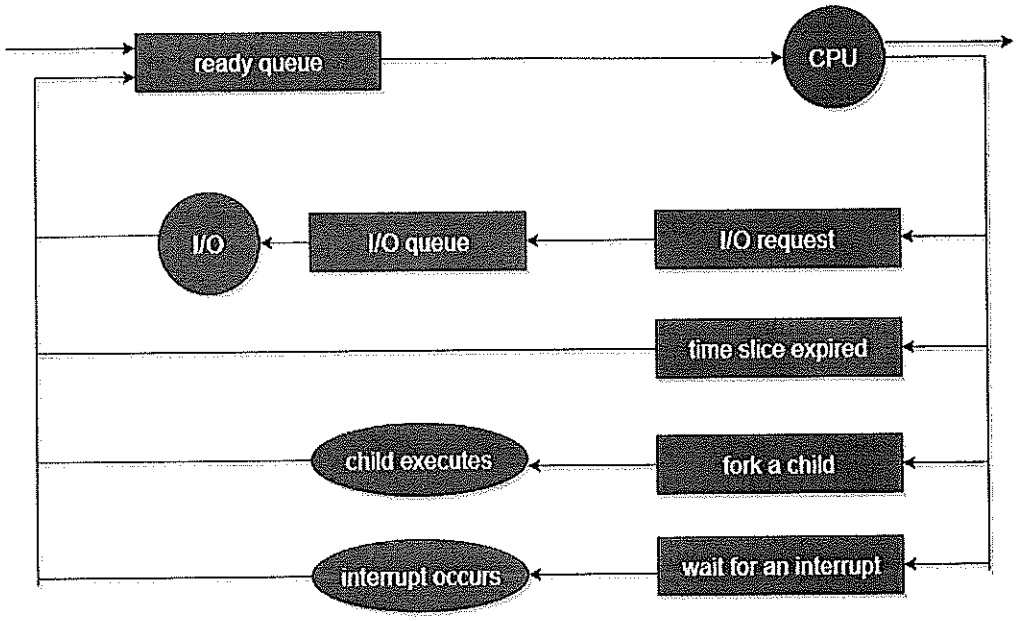
Section-C Essay Type Questions **(3x3) Marks**

1. With the help of a neat diagram, explain the state transition diagram of an Operating System.

   Ans: A new process is initially put in the ready queue. It waits in the ready queue until it is selected for execution (or dispatched). Once the process is assigned to the CPU and is executing, once of several events could occur.

The process could issue an I/O request, and then be placed in an I/O queue.

The process could create a new sub process and wait for its termination.
The process could be removed forcibly from the CPU, as a result of an interrupt, and be put back in the ready queue.



In the first two cases, the process eventually switches from the waiting state to the ready state, and is then put back in the ready queue. A process continues this cycle until it terminates, at which time it is removed from all queues and has its PCB and resources deallocated.

2. What are Clustered Systems? Explain three types of clustering.

Ans: Like parallel systems, clustered systems gather together multiple CPUs to accomplish computational work. Clustered systems differ from parallel systems, however, in that they are composed of two or more individual systems coupled together. The definition of the term clustered is not concrete; the general accepted definition is that clustered computers share storage and are closely linked via LAN networking. Clustering is usually performed to provide high availability.

A layer of cluster software runs on the cluster nodes. Each node can monitor one or more of the others. If the monitored machine fails, the monitoring machine can take ownership of its storage, and restart the application(s) that were running on the failed machine. The failed machine can remain down, but the users and clients of the application would only see a brief interruption of service.

There are three types of clustering which are explained below:

Asymmetric Clustering - In this, one machine is in hot standby mode while the other is running the applications. The hot standby host (machine) does nothing but monitor the active server. If that server fails, the hot standby host becomes the active server.

Symmetric Clustering - In this, two or more hosts are running applications, and they are monitoring each other. This mode is obviously more efficient, as it uses all of the available hardware.
Parallel Clustering - Parallel clusters allow multiple hosts to access the same data on the shared storage. Because most operating systems lack support for this simultaneous data access by multiple hosts, parallel clusters are usually accomplished by special versions of software and special releases of applications.

Clustered technology is rapidly changing. Clustered system use and features should expand greatly as Storage Area Networks(SANs). SANs allow easy attachment of multiple hosts to multiple storage units. Current clusters are usually limited to two or four hosts due to the complexity of connecting the hosts to shared storage.

3. What are Multiprocessor Systems? List some of their advantages.
   Ans: A multiprocessor system consists of several processors that share a common physical memory. Multiprocessor system provides higher computing power and speed. In multiprocessor system all processors operate under single operating system. Multiplicity of the processors and how they do act together are transparent to the others.

   Following are some advantages of this type of system.
   1. Enhanced performance
   2. Execution of several tasks by different processors concurrently, increases the system's throughput without speeding up the execution of a single task.
   3. If possible, system divides task into many subtasks and then these subtasks can be executed in parallel in different processors. Thereby speeding up the execution of single tasks.

Registration No.....

Bhartiya Skill Development University
School of Computing Skills
1st Semester / 1st In-Sem. Examinations
B. Voc. Program, Winter Semester (2018-19)

ITN1106 Network Server Management **Time: 1 Hour**

Max. Marks: 20

Instructions: Attempt all questions.

Section-A (5x1) =05 Marks

1. Which one of the following provides information regarding OS installation date & boot time?

a) info b) version c) systeminfo d) query

2.Which one of the following is a Non dedicated Server?

a) Linux b) Windows c) Novell d) None of them

3.Which one of the following is used to modify the user credentials?

a) dsadd b) dsmod c) dsrm d) dsquery

4.Which one of the following file systems provides you quota and security?

a) NTFS b) FST c) FAT d) FAT32

5.Which one of the following will show the windows version?

a) ver b) version c) winver d) system

Section-B (3x2) = 06 Marks

1.Can we upgrade windows 10 to Windows Server 2012? Comment it.

2.What are the different editions of the Windows 2012 Server? Also specify maximum supported RAM & Processor Chip limit ?

3.Can we join two Windows Servers? Comment

Section-C (3x3) = 09 Marks

1.Explain Client Server network with Figure.

2.What are the advantage of converting Workgroup to Domain? What are the requirements for it?

3.What are the advantage & disadvantage of peer to peer network?

Registration No.....

Bhartiya Skill Development University
School of Computing Skills
1st Semester / 1st In-Sem. Examinations
B. Voc. Program, Winter Semester (2018-19)

ITN1006 Network Server Management **Time: 1 Hour**

Max. Marks: 20

Instructions: Attempt all questions.

Section-A **(5x1) =05 Marks**

1. Which one of the following provides information regarding OS installation date & boot time?

a) info b) version c) systeminfo d) query **Answer C**

2.Which one of the following is a Non dedicated Server?

a) Linux b) Windows c) Novell d) None of them **Answer C**

3.Which one of the following is used to modify the user credentials?

a) dsadd b) dsmod c) dsrm d) dsquery **Answer B**

4.Which one of the following file systems provides you quota and security?

a) NTFS b) FST c) FAT d) FAT32 **Answer A**

5.Which one of the following will show the windows version?

a) ver b) version c) winver d) system **Answer C**

Section-B **(3x2) = 06 Marks**

1.Can we upgrade windows 10 to Windows Server 2012? Comment it.

No we can't upgrade from windows 10 to server 2012 as its Client OS .We can upgrade either client OS to client OS like windows 8 to 10

2.What are the different editions of the Windows 2012 Server? Also specify maximum supported RAM & Processor Chip limit ?

Editions are Foundation, Essentials, Standard, Data centre

CPU	1	2	64	64
Memory	32GB	64GB	4TB	4TB

3.Can we join two Windows Servers? Comment.

Yes we can join Windows Servers in Domain environment as Domain controller so that if any one fails still end users services will not be effected. Also can be linked as parent & child domains i.e One parent can have many child domains.

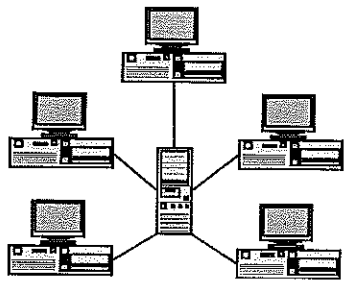
Section-C **(3x3) = 09 Marks**

1.Explain Client Server network with Figure.

Client-Server network model usually consists of one or more server computers that provide services and information to a number of workstation computers. These services can consist of many different roles, including: file services, web services, email services, domain name lookup services, document version

system services, Internet sharing services, etc. A great example of the Client-Server network model is actually the World Wide Internet. On the Internet clients, or computer with web browsers, access web sites that are hosted on servers.

With the Client-Server network model, each workstation only really needs to have one theoretical connection on the network, and that connection is to the main server as illustrated in the image below. Because of this, the maintenance cost for the network drops. Also, since all the important information of the network actually resides on the servers, the workstation maintenance also drops since the users can access any information they need through any workstation, and a faulty workstation computer will have very little effect on the usefulness of the network. I actually have setup networks where the workstation computers are backed up to an image on a central server, so if a workstation goes down, a technician can restore the image and have the workstation back up literally within minutes.



The Client-Server network model provides important services to the network safely and securely, it also allows the convenience of allowing the users to work on their own workstation machine. However, this network model can be very expensive, not only because the software can be expensive, but you also must provide adequate hardware for both the servers and the individual workstation machines, which can become very expensive with revolving hardware updates.

If you have the funds to implement this type of network, the return on the investment is great, and you will have the knowledge that your network is well secured and archived.

2.What are the advantage of converting Workgroup to Domain? What are the requirements for it?

Advantages of converting workgroup to domain are :-

a) Centralized administration
b) Backup can be taken from central location instead of multiple PC's.
c) Group policies can be applied for restriction on desktops wallpaper, screensaver etc.
d) Services like DHCP, DNS, FTP, WDS,IIS etc can be configured as per our requirements.
e) Security is enhanced in comparison to workgroup.

Minimum requirements for Converting Workgroup to Domain at Windows Server are:

a. Administrative Privilege

b. NTFS Partition

c. Should be in Network

d. Static IP required

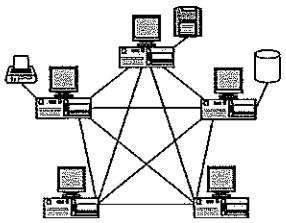
3.What are the advantage & disadvantage of peer to peer network?

Peer-to-peer Networks

Nearly all Operating Systems come with the ability to act as some kind of a server to share resources. You can setup different computers to allow others to use its peripherals such as printers or CDROM drives, and other computers to allow others to read or write to its hard disk allowing sharing of files, while other computers may allow access to its Internet connection. When you allow workstation computers to become servers and share things in this manner, it is called a Peer-to-peer network.

Peer-to-peer networks are very cheap to implement because more than likely the Operating System software you have installed on your computers should have the ability to share items with other computers on the network, even though the feature may be limited. Nearly all of the most popular desktop Operating Systems have this feature, including Microsoft Windows and Apple's Mac OS, as well as Unix like OS es, such as Linux and the BSD s. So the only cost will be the networking hardware (cards, wiring, hubs or switches), and the labor to configure the workstations for this type of network sharing.

On a peer-to-peer network, it is also very difficult to implement a good backup system because important documents tend to be stored on different hard disks on different computers. If you do manage to implement a good backup policy, chances are great that after a while some very important documents will not get archived because someone "accidentally" saved them to the wrong location on the network.



Peer-to-peer networks can be implemented with very little investment costs, but in order for the network to work properly, the users must be very experienced with computers, and strict guidelines must be implemented and followed in order for the data to remain secure and archived properly. In my experience, peer-to-peer networks tend to become more of a headache instead of a help after about 6 computers, especially if your company has a moderate employee turnover.