State and explain the five phases/technique of troubleshooting

1. Define the problem: Without a complete understanding pf the entire problem, you can spend a great deal of time working on the symptoms instead of the cause. The only tools required for this phase are a pad of paper a pen and a good listening skills.
2. Zero in on the cause: There is no correct approach to follow, and there is no substitute for experience. The best method is to eliminate any obvious problems and work from the simplest to the more complex.
3. Conduct the repair: After one have zero in on the cause, then the process of elimination begins.
4. Make a plan: Create a planned approach to isolate the problem based on your knowledge at this point.
5. Follow the plan from beginning to the end: Once the plan is created, it is important to follow it through. Jumping around and randomly trying things often can often lead to problems.
6. Repair or replace: After locating the problem, either repair or replace the defect.
7. Confirm the results: Confirmation involves two steps
8. Make sure the problem no longer exists. Ask the user to text and confirm client satisfaction.
9. Make sure that the fix did not create other problem.
10. Document the results: There is no substitute for experience in troubleshooting. Every new problem presents you with an opportunity to expand that experience.

List the five points to be considered when choosing a power supply.

1. Power supplies come in a variety of sizes and shapes
2. There are two types of connectors AT and ATX.
3. A power supply must be capable of handling the requirement of the computer and all internal devices
4. Be careful when attaching some connectors, if connected incorrectly can damage the computer
5. Do not open the power supply housing.

What is PC upgrade maintenance?

Pc upgrade and maintenance refers to the process of improving the performance and longevity of a personal computer by updating or replacing hardware components and software, as well as regularly cleaning and optimizing the system to remove any unnecessary files, malware and errors.

What is upgrade? Computer upgrade is the act of changing some part of the system from a low performing part to a higher performing part.

Five possible reason of upgrade include

1. Technology changes in computer hardware
2. User demand for a higher processing power
3. The emergence of complicated software packages
4. Expansion of the data processing department
5. Need for a higher processing speed

Procedure to follow in disassembling most computers

1. Make a complete back-up of necessary operating system and working files
2. Turn off the computer
3. Disconnect the power cables
4. Locate the screws for the cover
5. Remove the screws
6. Remove the cover from the computer
7. Remove all the cards and place them in antistatic bag
8. Document the location and connection for each drive
9. Remove the data and power supply cables
10. Remove the drives from their appropriate bays-look on their sides for the screws
11. Remove the motherboard.

If you computer is running slow, what default windows program will help you find which program is using all your processing power (CPU) or memory. State steps to open this program or the shortcut keys to launch this program?

Use Task Manager to view CPU consumption to help identify the process or application that is causing high CPU usage. The steps include:

1. Select the start
2. Enter task
3. Select the Task Manager in the search results.

What do you understand by the term "Troubleshooting"?

Troubleshooting is a systematic approach to solving a problem. The goal of troubleshooting is to determine why something does not work as expected and explain how to resolve the problem.

State three reasons for maintenance

1. To ensure the optimum performance of the machine all the time
2. To reduce the idleness of the operators links to down time of the machine
3. To obtain value for money used in purchasing the system
4. To reduce budget that could have been used to acquire a new machine.

What do you understand by the term "ESD"? Electrostatic discharge is the release of static electricity contained on human body and other such body that can contain static electricity.

1. Fuse: It is a short thin piece of wire inside electrical equipment which prevents damage by melting and stopping the electricity when there is too much of power.
2. Diodes: an electrical component that allows the flow of current in only one direction. In circuit diagrams, a diode is represented by a triangle with a line across one vertex.
3. Capacitors: A capacitor is a device that stores electrical energy in an electric field by virtue of accumulating electric charges on two close surfaces insulated from each other. It is a passive electronic component with two terminals.
4. Resistors: The resistor is a passive electrical component that creates resistance in the flow of electric current. In almost all electrical networks and electronic circuits they can be found. The resistance is measured in ohms (Ω).
5. Transistor: A transistor is a miniature semiconductor that regulates or controls current or voltage flow in addition amplifying and generating these electrical signals and acting as a switch/gate for them.
6. Integrated Circuits: An integrated circuit (IC), sometimes called a chip, microchip or microelectronic circuit, is a semiconductor wafer on which thousands or millions of tiny resistors, capacitors, diodes and transistors are fabricated.

Mention Computer hardware components that can be upgraded

1. CPU
2. RAM
3. Hard Drive
4. GPU
5. Power Supply
6. Casing
7. Mother Board

Write the full meaning of the following acronyms:

1. ESD: Electrostatic Discharge
2. FPDS: Flat-panel Displays
3. CMOS: Complementary Metal Oxide Semiconductor
4. POST: Power On Self-Test
5. EDORAM: Extended Data out Random Access Memory
6. SIMMS: Single In-line Memory Module
7. DIMMS: Dual In-line Memory Module
8. VGA: Video Graphics Array
9. LCDs: Liquid Crystal Display
10. CRT: Cathode-ray Tube.

Mention benefits of hardware upgrade you know

1. Enhanced Performance
2. Increased Security
3. Downtime is Reduced
4. Better Communications
5. Better Experience for your Employees