**DV162\_44\_PAS\_On Cooling**

**Possible Answers Sheet**

Q1. What is one of the biggest challenges when it comes to maintaining the operation of a computer?

Ans: One of the biggest challenges when it comes to maintaining the operation of a computer is that it remains cool.

Q2. How can we provide cooling for our computers?

Ans: Common Way is to provide cool air to our computers.

Q3. What factors should be taken into account when thinking about cooling a system? Ans: Case Air Flow, Heat Generation Components (CPU, GPU, etc.), OverClocking, Thermal Paste Quality, Fan Noise Level, Fan Type.

Q4. What type of adapter cards have a fan directly connected to them?

Ans: External Video Adapter Cards have a fan directly connected to them.

Q5. What is a fan controller?

Ans: Is a component available on the motherboard that controls how much airflow is going through the system.

Q6. Is it possible to replace a loud fan with a quieter one?

Ans: Yes, we can replace a loud fan with a similar fan that will be quieter.

Q7. Are there any computer systems that have no fans at all?

Ans: Yes there are computer systems that have no fan at all, they do their cooling passively, e.g. Very common on systems you might put next to a television to provide some type of media services.

Q8. What kind of tests is a passively cooled system put through?

Ans: Number of tests to make sure no matter how hard we use passively cooled system or computer, it will be able to keep up with the cooling necessary to keep that system running.

Q9. What is used for passive cooling?

Ans: For Passive Cooling, specially designed pieces of metal called heat sinks are used.

Q10. What is a heat sink?

Ans: A heat sink is a specially designed piece of metal. This is usually copper or aluminum alloy, and it usually has a very specific shape that allows it to take heat from a particular component and dissipate that heat as air is passing by the heat sink.

Q11. Thermal paste referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_or\_\_\_\_\_\_\_\_\_\_\_\_.

Ans. thermal grease, conductive grease.

Q12. What is thermal paste?

Ans: Thermal Paste is special paste that is used in between components and heat sinks to make transfer of heat from component to heat sink efficiently.

Q23. How is the liquid cooled?

Ans: Liquid cooling in computers typically involves a closed-loop system that uses a coolant to transfer heat away from the components, such as the CPU or GPU, to a radiator where the heat is dissipated into the surrounding air.

Q24. What is connected to the liquid-cooled system?

Ans: A radiator, fan, tubing etc. are connected to a liquid-cooled system.

Q25. What happens to the hot water from the CPU?

Ans: It would be sent through the radiator where cool air is blown to make it cool and sent back to the CPU.

Q26. What happens as the hot water goes through the radiator?

Ans: It has become cool.

Q27. What happens to the cool water after it is cooled down?

Ans: Cooled down water is brought back to the CPU.