

HANDLE WITH QUALITY CARE QUIZ



Multiple Choice Please choose the one answer that best fits the question		True and False Please circle T or F to indicate true or false	
1	Improper hard drive handling will result in _____. a. increased production costs b. damage to hard drives c. unhappy customers d. all the above	1	Some hard drive damage might not be visible T F
2	Typical signs of damage to shipping cartons are _____. a. water stain b. bent corners c. puncture holes in box d. all the above	2	Rocking interface and power connectors on or off is acceptable because it is the easiest and fastest method. T F
3	Use _____ to open ESD bags. a. fingers b. screw drivers c. scissors d. a and b	3	Proper handling is not needed if a drive is in its Seagate shipping packaging. T F
4	Outside the shipping cartons, handle only _____ hard drive(s) at a time. a. one b. two c. three d. as many as you can hold	4	Drives should be kept away from table edges. T F
5	The safest way to leave drives unattended on a table is _____. a. vertical position (on edge or on end) b. horizontal position (flat on the table) c. both of the above d. none of the above	5	Mishandled drives will not fail at your customers. T F
6	To prevent stripped threads, all hardware mounting screws ideally should be started with _____. a. a power torque driver b. a manual screw driver c. hands d. b and c	6	Rejected drives must be handled with the same care as good drives T F
7	The proper way to connect mating interface and power connectors is _____. a. straight on, without any rocking b. rocking the connector slightly c. by observing proper connector keying d. a and c	7	You can make a difference in the quality of the hard drives you process, unpack, install or pack. T F
8	The recommended way to stack multiple unpackaged drives is _____. a. vertically b. only two layers high c. with PCBA facing up d. none of the above	8	If you use proper ESD grounding, then it is Acceptable to hold the drive by applying pressure to the PCBA. T F
9	The minimum wait after drive power is removed before drives/systems may be moved is _____. a. 30 seconds b. 1 minute c. 1 hour d. none of the above	9	You can use any packaging for returning failed drives because they are already defective. T F
10	A drop from _____ distance may damage the drive. a. 1 foot b. 0.5 inch c. 6 inches d. All the above	10	A hard drive should be handled with the same care as an egg. T F

Answers To Multiple Choice Questions		Answers To True and False Questions	
1	d—Improper hard drive handling will result in all these items and more.	1	T - Not all damage to drives can be seen. Some of the damage is hidden inside the HDA or PCBA components and will cause the drive to fail at a later date.
2	d—Typical signs of damage on shipping cartons are all these items.	2	F - Rocking connectors on or off is not acceptable at any time because it can cause damage to connector pins and housings.
3	a—Do not use any object besides your fingers to open the ESD bag.	3	F - Proper handling is needed at all times when handling hard drives no matter whether packaged or unpackaged.
4	a—Handling more than one hard drive at a time increases the chance for damage.	4	T - Drives stored near table edges have a higher chance of being bumped or knocked to the floor.
5	b—Always place the hard drive in the horizontal position (flat on the table) when it's unsupported.	5	F - Mishandled drives can fail at anytime. This includes the factory, your customer or your end-user.
6	c—Using a power or even a manual screw driver to start mounting screws can damage threaded holes. If it slips, the screwdriver can Also cause damage to the runs or components. Using your fingers start the screw is the best method.	6	T - Rejected drives should be handled with the same care as a good drive because not all rejected drives are bad and any handling damage may mask the root cause of a drive failure and prevent accurate corrective actions from being implemented.
7	d—Rocking mating connectors may damage the connector pin or housings. Always insert straight into the connector while observing the proper connector keying.	7	T - Everyone that handles a hard drive, whether it is on the incoming shipping dock or in the outgoing system shipping, can ensure a good quality product if they handle the hard drive correctly.
8	d—Never stack drives on top of each other because you may damage the PCBA components or cause mechanical shock to the hard drive.	8	F - Even if you are properly ESD grounded, you may damage PCBA components or traces if you apply unnecessary pressure. Always handle the drive by the HDA and not the PCBA.
9	a—Wait at least 30 seconds after drive power is removed from the drive before you move the drive. This will allow the drive to spin down and the heads to be safely secured in the landing zone.	9	F - Only Seagate-approved packaging should be used to return products to Seagate. Any other packaging violates the product warranty and can cause damage to the hard drives.
10	d—A drop from any distance may cause hard drive damage.	10	T - A hard drive has components that are as sensitive to damage as an egg. Always Handle with Quality Care.