ୁ-ସିଥି-Beckfoot

Engineering<br/>ManufactureUnit R109: Engineering materials, processes and production Lo4 -<br/>Understand the impact of modern technologies on engineering production



1.	The Impac	t Of	Automation On	2	2. Digital Communications			
Production			Increased output		Uses In Research And	Internet Research	Find out about <b>the competition, areas of inspiration, customer opinions, existing products</b> .	
1	1	<ul> <li>Faster to market</li> <li>Reduced production times</li> </ul>		1	Development	Computer Aided Design (CAD)	<ul> <li>Increases speed of designing.</li> <li>Higher quality designs.</li> <li>Reuse and easily change / modify designs</li> <li>Designing physical objects in a virtual workspace</li> </ul>	
2	Quality	<ul> <li>Consistency/zero defects</li> <li>Right first time</li> </ul>						
3	Workforce	<ul> <li>&gt;rkforce</li> <li>Smaller workforce</li> <li>Employee re-training</li> <li>Changes in job profiles</li> <li>Improved working conditions</li> </ul>				Electronic Communication Of Drawings	<ul> <li>Fast sharing of design ideas.</li> <li>Low cost to send an email.</li> <li>Convenience</li> <li>Quick feedback from designs</li> <li>Easy to collaborate on designs</li> </ul>	
4	Costs	sts □ Initial capital outlay □ Savings in workforce costs □ Reduced overall cost of production				Video Conferencing	<ul> <li>Reduced / No travel time</li> <li>Reduced costs compared to travel.</li> <li>Everybody attends.</li> </ul>	
3.	Global ma	lobal manufacturing					<ul> <li>Structured meetings with improved communications.</li> <li>Increased productivity.</li> </ul>	
1	Global supply chain		The worldwide system that a business uses to produce products or services.		Material Supply And Control	Just-in-time (JIT)	<ul> <li>A system based on receiving a customer order, the manufacture of the product on the production line and finally distribution.</li> <li>Just in time relies on a good, efficient working relationship</li> </ul>	
2	Business benefits <ul> <li>Lower labour costs.</li> <li>Able to reach new markets to sell products.</li> <li>React to changing demand.</li> <li>Partnerships to improve efficiencies / business / manufacture.</li> </ul> Standardisation <ul> <li>The process of implementing</li> </ul>		<ul><li>Lower labour costs.</li><li>Able to reach new markets</li></ul>				between the supplier / suppliers, the manufacturer and the distributer.	
			2		Inventory Reduction	Less finance tied up in materials or parts if production line is efficient. Reduced storage required.		
					Automatic Ordering	A system <b>automatically</b> reorders items in a warehouse when a minimum quantity is reached, it <b>reorders</b> a sufficient number of parts to replenish them and bring them back to a safe working levels.		
3	of processes and procedures		and developing technical with the agreement of firms,		Stock Management	The practice of ordering, storing, tracking, and controlling inventory.		
			users, organizations and governments. A level of consistency in the product the same high quality product.			Electronic Transfer Of Data	(EDI) is the electronic exchange of business information using a standardised format; a process which allows one company to send information to another company electronically rather than with paper.	