

## **INDUSTRY AND ENTERPRISE**

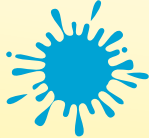


**1. WHAT IS CAD?**  
Can you name CAD that you have used?

**2. WHAT IS THE MEANING OF CNC?**



**3. DESCRIBE COMPUTER INTEGRATED MANUFACTURE (CIM)?**



**4. WHAT IS RAPID PROTOTYPING?**  
Include an example.



**5. LIST 4 ADVANTAGES AND 4 DISADVANTAGES OF COMPUTER AIDED MANUFACTURE (CAM - sometimes referred to as, work carried out on CNC machines).**



**6. WHAT IS MEANT BY THE CONCEPT OF 'CONTINUED IMPROVEMENT'?**



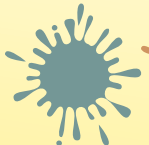
**7. EXPLAIN EACH OF THE FOLLOWING TERMS: CROWDFUNDING, COOPERATIVES AND FAIRTRADE**



**8. BRIEFLY EXPLAIN HOW BARCODES ARE USED IN: MANUFACTURING, DISTRIBUTION AND SUPPLY.**



**9. DESCRIBE 4 WAYS INFORMATION COMMUNICATION TECHNOLOGY (ICT), IS USED AS A MARKETING TOOL.**



**10. WHAT IS E-COMMERCE AND EDI?**  
Include the advantages of EDI.



**11. EXPLAIN THE FOLLOWING: COPYRIGHT, PATENT AND TRADEMARK?**

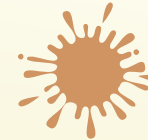


## **SUSTAINABILITY AND THE ENVIRONMENT**

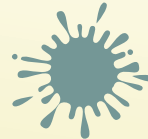
**1. WHAT IS MEANT BY 'SUSTAINABILITY? Refer to card packaging in your answer.**



**2. WHAT IS A SUSTAINABLE FOREST?**



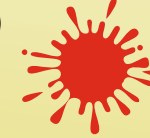
**3. WHAT IS OUR 'CARBON FOOTPRINT'?**



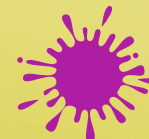
**4. HOW CAN WE REDUCE OUR CARBON FOOTPRINT?**



**5. NAME AND EXPLAIN THREE RENEWABLE ENERGY FORMS (ALTERNATIVE ENERGY FORMS)**



**6. DO YOU THINK 'PERCEIVED OBSOLESCENCE' AND 'BUILT IN OBSOLESCENCE', ARE BAD FOR THE ENVIRONMENT?**



Explain your answer.



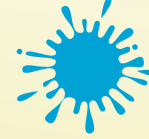
**7. LIST 4 ENVIRONMENTAL QUESTIONS, CUSTOMERS REGULARLY ASK, WHEN DECIDING TO PURCHASE A PRODUCT.**



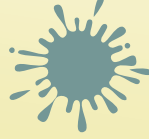
**8. EXPLAIN 'PRODUCT LIFE CYCLE ASSESSMENT'.**



**9. DRAW A DIAGRAM REPRESENTING THE 'LIFE CYCLE' OF A MODERN CAR.**



**10. WHAT IS 'UPCYCLING' and WHAT IS 'DOWNCYCLING'?**



**11. WHAT IS 'CLOSED LOOP RECYCLING' AND WHY IS IT REGARDED AS GOOD FOR THE ENVIRONMENT?**



**12. WHY SHOULD MAINTENANCE AND REPAIRABILITY, BE BUILT IN TO THE PRODUCTS WE BUY?**

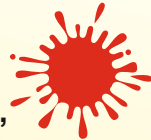


## **PRODUCTION TECHNIQUES AND SYSTEMS**

1. DESCRIBE 'JUST IN TIME' (JIT)?  
Include some advantages of using this system.



2. EXPLAIN THE TERM 'LEAN MANUFACTURE'.  
Include names of companies using this system of production,



3. WHAT IS 'OPTIMISED WORKFLOW'? (An aspect of Lean Manufacture)



4. EXPLAIN 'FLEXIBLE MANUFACTURING'. Include an example of a product manufactured in this way.



5. WHAT IS GLOBALISATION?  
Include some advantages and disadvantages.



6. HOW WOULD YOU DESCRIBE / EXPLAIN EACH OF THE 6Rs?

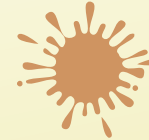


## **INFORMING DESIGN DECISIONS**

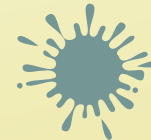
1. HOW CAN INFORMATION COMMUNICATION TECHNOLOGY (ICT) HELP WHEN DEVELOPING AND MODELLING IDEAS?



2. EXPLAIN THE MEANING OF THE TERM 'TREND'.  
Give an example of a product that became a trend.



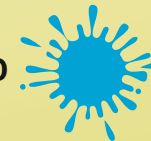
3. DESCRIBE EXAMPLES OF TECHNOLOGY PUSH and also, MARKET PULL.



4. WHY DO DESIGNERS CONSIDER USING STANDARD COMPONENTS IN THEIR PRODUCTS?



5. DESCRIBE 3 DIFFERENT DESIGN STRATEGIES, UTILISED BY DESIGNERS.



6. WHAT IS INCLUSIVITY?  
Include examples of products that have been designed to ensure inclusivity.



7. WHY IS WORKING AS A TEAM IMPORTANT (when designing and manufacturing)?



**OTHER AREAS ALREADY COVERED THAT ALSO RELATE TO THIS SECTION**  
PLANNED AND PERCEIVED OBSOLESCENCE  
RECYCLEABILITY  
REPAIRABILITY AND MAINTENANCE  
LIFE CYCLE ASSESSMENT

## **PEOPLE CULTURE AND SOCIETY**

USING THE INTERNET AS A RESEARCH TOOL, ANSWER THE FOLLOWING QUESTIONS:

1. WHAT IS CONSUMER CHOICE?

2. 'CULTURE' IS A COMBINATION OF BELIEFS, CUSTOMS, TRADITIONS AND VALUES. WHY DO DESIGNERS NEED TO CONSIDER 'CULTURE', WHEN DESIGNING PRODUCTS?

**OTHER AREAS ALREADY COVERED THAT ALSO RELATE TO THIS SECTION**  
TECHNOLOGY PUSH and MARKET PULL  
INCLUSIVITY  
TRENDS  
PERCEIVED OBSOLESCENCE