

## Advanced Manufacturing Processes

### PHASE III. QUIZ and SHORT QUESTIONS BASED ON WEB LECTURES AND PRESENTATIONS:

#### MODULE 1:

#### Self-assessment short questions/ Quiz:

#### Fill in the right words and complete the sentences:

1. Manufacturing is considered as the \_\_\_\_\_ of system containing input (raw materials) and output as the \_\_\_\_\_
2. Product design consists of translating the \_\_\_\_\_ of customer into \_\_\_\_\_ oriented design.
3. Purchasing involves procuring the \_\_\_\_\_ material at \_\_\_\_\_ price and \_\_\_\_\_ time.
4. The manufacturing history dates back to period between \_\_\_\_\_
5. The CNC machines and robotics began growth from \_\_\_\_\_ onwards.
6. In the present scenario the success of manufacturing depends upon \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
7. The advanced manufacturing processes mainly grew after the \_\_\_\_\_.
8. Manufacturing is divided into \_\_\_\_\_ broad stages.
9. Some examples of metal forming processes are \_\_\_\_\_
10. Metal removal processes consists of \_\_\_\_\_ processes using \_\_\_\_\_ to remove \_\_\_\_\_ material.
11. Some examples of rapid manufacturing processes are \_\_\_\_\_
12. Metal casting involves: Pouring \_\_\_\_\_ into a \_\_\_\_\_ having the required shaped \_\_\_\_\_ and then allowing it to solidify.
13. Metal forming is defined as a \_\_\_\_\_ process that induces change in shape under the \_\_\_\_\_.

14. Metal forming is of two basic types; namely \_\_\_\_\_ and \_\_\_\_\_.
15. Re-crystalline temperature is the temperature at which \_\_\_\_\_ starts and \_\_\_\_\_ starts forming.
16. The re-crystalline temperature is defined generally in the range of \_\_\_\_\_ of the material.
17. Cold forming is performed by heating the metal \_\_\_\_\_ its re-crystalline temperature.
18. Hot forming is generally performed by heating the metal \_\_\_\_\_ its re-crystalline temperature.
19. Welding is defined as the process of \_\_\_\_\_ two or more \_\_\_\_\_ components through the application of heat.
20. In rapid manufacturing, using an additive approach by \_\_\_\_\_ of energy and/or materials; \_\_\_\_\_ the RM machines fabricate plastic, wood, ceramic and metal powders to form physical objects.

## **Module 1: Answers to short/ Quiz Questions**

1. Heart, Finished product
2. Voice, Quality
3. Right, Right, Right
4. 5000-4000 B.C.
5. 1960
6. Quality, Cost and Lead-time
7. Second world war.
8. SIX
9. Forging, Rolling, Extrusion and Sheet metal forming
10. Machining, tools, unwanted/ excess.
11. Stereo-lithography, Selective laser sintering, Fused deposition modeling and laminated object manufacturing
12. molten metal, mold, cavity
13. Bulk deformation, applied force.
14. Hot forming and Cold forming
15. Nucleation, new grains,
16. (0.3-0.5) times the Melting point.
17. Below
18. Above
19. Joining, similar or dissimilar metallic/ material.
20. Sequential delivery, layer by layer

