

Assignment 5

Manufacturing Systems Technology

1. The feasibility of process planning is dependent on:

- (a) Design of machine tools
- (b) Availability of machine tools

© **Both (a) and (b)**

- (d) None of the above

2. The functions of process planning are:

- (a) Planning the process
- (b) Determining the cutting conditions

(c) **Both**

- (d) None of the above

3. The Types of Computer aided process planning are:

(a) **Retrieval type CAPP system and Generative CAPP system**

(b) Progressive CAPP system and Generative CAPP system

(c) Retrieval type CAPP system and Progressive CAPP system

(d) None of the above

4. What are the steps to variant process planning?

(a) Define the coding scheme, Group the parts into part families and develop a standard process plan

(b) Define the coding scheme, Group the parts into part families and modify the standard plan

(c) Define the coding scheme, modify the standard plan and develop a standard process plan

(d) **Define the coding scheme, Group the parts into part families, develop a standard process plan and Retrieve and modify the standard plan**

5. In CAPP system no standard manufacturing plans are redefined or stored.

(a) **Generative**

- (b) Geometry
- (c) Process
- (d) Additive

6. Geometry based coding system translates the physical features and engineering drawing specifications into computer interpretable data (YES/NO?)

- (a) Yes
- (b) NO

7. There are two major components of a generative process planning system: _____ and _____.

(a) A geometry based coding scheme and Process knowledge

- (b) Process knowledge and MIPLAN
- (c) Descriptive information and Process knowledge
- (d) None of the above

8. _____ planning involves the preparation and documentation of the plans for manufacturing the products

- (a) Part
- (b) Process**
- (c) Generative
- (d) Both (a) and (b)

9. The principle of developing a process plan is based on the following:

- (a) Selection of material and machine tool
- (b) Analysis of parts, raw materials, machine tool, manufacturing operations and machining conditions**
- (c) Selection of machine tool according to cost
- (d) Optimization of cutting speed

10. A decision table is

- a). a truth table
- b). a table which facilitates taking decisions
- c). a table listing conditions and actions to be taken based on the testing of conditions**
- d). a table in a Decision Support System

11. Decision tables are useful in situation where

- a). An action is taken under varying sets of conditions
- b). Number of combinations of actions are taken under varying sets of conditions**
- c). No action is taken under varying sets of conditions
- d). None of the above.

12. In decision tables, which of the following is true:

- A. Number of test cases is equal to number of rules (or columns)**
- B. Number of test cases is not equal to number of rules (or columns)
- C. Both A and B
- D. None of the above

13. The advantages of Computer-Aided Process Planning are:

- a). It can reduce the skill required of a planner.
- b). It can reduce the process planning time.
- c). It can increase both process planning and manufacturing cost.
- d) All (a), (b) and (c) are true
- e). only (a) and (b) are true**
- f). none of the above

14. These are the generative Computer-Aided Process Planning systems:

- (a) CMPP, GARI, CMPP & XPLANE
- (b) GT-CAPP, SIPS, CMPP & TOLTEC
- (c) MIPLAN, KAPPS, CMPP & XPLANE**
- (d) XPLAN, TOM, KAPPS & CMPP

15. Steps involved in Graph based feature recognition are:

- a) Generating graph based representation of the object to be recognized.
- b) Defining part features.
- c) Matching part features in the graph representation.
- d) Only (a) and (b)
- e) Only (a) and (c)
- f) (a), (b) and (c)**