

Q.22 Discuss the techniques of galvanizing, metal spraying, and metallization. (CO4)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 What are the advantages and disadvantages of surface grinding and cylindrical grinding. Provide practical examples of when each is preferred. (CO1)

Q.24 Discuss the key consideration and steps involved in setting up a gear manufacturing process. (CO2)

Q.25 Explain in details the concept of pantograph its main parts and functions. (CO4)

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2nd Year / Advance Diploma in Tool and Die Making

Subject : Workshop Technology - II

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Which abrasive method is used for achieving fine surface finishes in precision components?

- a) Grinding
- b) Boring
- c) Drilling
- d) Lapping

Q.2 What are the three main cutting parameters in grinding? (CO1)

- a) Temperature, pressure, and time
- b) Speed, feed, and depth of cut
- c) Diameter, length, and width
- d) Grit size, abrasive type, and wheel thickness

Q.3 In a pantograph machine, what is the function of the stylus? (CO3)

- a) To hold the workpiece
- b) To cool the cutter
- c) To guide the workpiece
- d) To trace the original shape

- Q.4 What is Copy Milling used for? (CO3)
- Copying documents
 - Milling precise copies of a template
 - Painting artwork
 - Sharpening pencils

- Q.5 What is the main use of a differential indexing head? (CO2)
- To produce straight cuts in workpieces
 - To create threaded holes in metal
 - To generate angular divisions
 - To measure the hardness of materials

- Q.6 What is the function of shot blasting in surface treatment? (CO4)
- To apply a protective coating
 - To remove rust and contaminants
 - To heat-treat the workpiece
 - To create a mirror finish

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 The primary function of a dresser in grinding operations is to _____. (CO1)
- Q.8 What is the use of copy milling? (CO3)
- Q.9 Indexing and dividing heads are essential for gear cutting techniques. (True/False) (CO2)
- Q.10 Jig grinding machines are commonly used for achieving high precision in _____. (CO3)

- Q.11 Electroplating involves the application for a thin metal layer to a work piece surface. (True/False) (CO5)
- Q.12 The Primary purpose of polishing, lapping, and honing is to improve surface _____. (CO5)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain the concept of grinding operations and the main parts of a surface grinding machine. (CO1)
- Q.14 Describe the indexing methods used in gear manufacturing. (CO2)
- Q.15 Explain the functions of a jig boring machine and its key components. (CO3)
- Q.16 Discuss the main parts and functions of a jig grinding machine. (CO3)
- Q.17 Describe the concept of copy milling and the main components of a copy milling machine. (CO5)
- Q.18 Explain the purpose and operational principles of a pantograph machine. (CO5)
- Q.19 Discuss the principles of polishing, lapping, and honing methods. (CO5)
- Q.20 Describe the electroplating process, including its materials and steps. (CO4)
- Q.21 Explain the concept of hard chrome plating, its features, and the steps involved in the hard chrome plating process. (CO4)