

Total No. of Printed Pages:3

SUBJECT CODE NO:- H-1123
FACULTY OF SCIENCE AND TECHNOLOGY
S.Y. B.Tech. (Mech./Prod) (Sem-IV)
Manufacturing Processes-II
[Old]

[Time: Three Hours]**[Max. Marks: 80]**

N.B

Please check whether you have got the right question paper.

- 1) Q.1 from section A & Q.6 from section B are compulsory.
- 2) Solve any two questions from each section other than Q no 1 & Q. no 6
- 3) Figures to the right indicate full marks.

Section A

Q.1 Attempt any Five

10

1. Cutting fluids mostly used for machining steel is.....
 - a) Soluble oil
 - b) Water
 - c) Heavy oil
 - d) Dry
2. As the cutting speed increase tool cutting forces.....
 - a) Increases
 - b) Decreases
 - c) Remains constant
3. To reduce the wear of tool on harder material it should be machined at -----
 - a) Lower cutting speed & higher feed;
 - b) Higher cutting speed & lower feed;
 - c) Lower cutting speed & smaller feed;
4. A flat surface can be produced by a lathe machine, if the cutting tool moves.....
 - a) Perpendicular to the axis of rotation of workpiece
 - b) Parallel to the axis of rotation of workpiece
 - c) At an angle of 45 degree
5. is used for holding bored parts for machining their outside surfaces on Lathe:
 - a) Angle plate
 - b) Mandrel
 - c) Driving plate
 - d) Dogs

6. The process of beveling sharp ends of a workpiece is called as....
 - a) Knurling
 - b) Facing
 - c) Chamfering
 - d) Grooving
7. A left hand tool on a lathe cuts most efficiently when it travels
 - a) From left to right end of the lathe bed
 - b) From right to left end of the lathe bed
 - c) With the help of a compound slide
 - d) Across the bed

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| Q.2 | a) What are the three basic categories of material removal processes? Explain in details | 08 |
| | b) Explain various types of chips with neat sketches | 07 |
| Q.3 | a) With the help of a line diagram, describe the gear mechanism of an engine lathe | 08 |
| | b) Name different methods of taper turning? Describe these methods using neat sketches | 07 |
| Q.4 | a) Define the following terms used in lathe operation | 08 |
| | i) Cutting speed | |
| | ii) Feed | |
| | iii) Depth of cut | |
| | iv) Machining time | |
| | b) Name the different types of the lathes available in machine shop? Describe the working of a center lathe | 07 |
| Q.5 | a) Explain the construction and working of Horizontal Boring Machine | 08 |
| | b) Sketch a twist drill and name its different parts. | 07 |

Section B

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|-----|---|----|
| Q.6 | Attempt any five | 10 |
| | 1. Down milling is also called | |
| | a) Face milling | |
| | b) End milling | |
| | c) Climb milling | |
| | d) Conventional milling | |
| | 2. The process of removing materials in the form of chips from a workpiece by mechanical action of many small abrasive particles bonded together in a wheel is called as..... | |
| | a) Turning | |
| | b) Grinding | |
| | c) Milling | |
| | d) Broaching | |

3. The process of removing metal by a milling cutter, which is rotated against the direction of the feed of the workpieces.....
 - a) Face milling
 - b) Up milling
 - c) End milling
 - d) Down milling
4. In unconventional Machining process, tool material must be harder than workpiece material.....
 - a) True
 - b) False
5. The process to expose fresh cutting action by removing glaze or adhesion particles is called by.....
 - a) Clearing
 - b) Dressing
 - c) Turning
 - d) Facing
6. In ultrasonic machining, the material is removed by.....
 - a) Anodic dissolution
 - b) Thermal melting
 - c) Abrasive action
 - d) Electrochemical oxidation
7. In Electron beam machining, workpiece is held in.....
 - a) Vacuum chamber
 - b) Dielectric medium
 - c) Electrolyte

- Q.7 a) How does a universal milling machine differ from a conventional knee-and-column machine? 07
 b) Define the following terms used in milling operation 08
 a) Cutting speed
 b) Feed
 c) Depth of cut
 d) Machining time
- Q.8 a) With the help of sketch explain the center-less grinding operation 08
 b) Explain construction and working of planer machine 07
- Q.9 a) Explain Laser beam machining 07
 b) What are the different types of grinding machines? Explain one in details 08
- Q.10 a) Explain principal parts of shaper 08
 b) Explain electro discharge machining. Also state its applications 07