

May-2017 30-05-17

QP CODE : 559302

(3 Hours)



[Total Marks : 80

N.B.:

1. Question No. ONE is compulsory.
2. Attempt any THREE questions from the remaining FIVE questions.
3. Support your answers with neat sketches wherever necessary.
4. All questions carry equal marks.

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| 1. | a) | Differentiate thermoplastics and thermosetting polymers. | 04 |
| | b) | List down various operations which can be performed on lathe machine. | 04 |
| | c) | List and explain types of drilling machines in brief. | 04 |
| | d) | Write detail classification of milling machines. | 04 |
| | e) | Compare Up milling and Down milling operations. | 04 |
| 2. | a) | Draw single point cutting tool geometry and explain significance of each angle. | 10 |
| | b) | Compare Capstan and Turret lathe in detail. | 10 |
| 3. | a) | Name different types of cutting off machines. Explain any two with a neat sketch. | 10 |
| | b) | How machining time is calculated in drilling operation? | 10 |
| 4. | a) | Draw and explain blow molding and compression molding. | 10 |
| | b) | Explain with neat sketch transfer molding. | 10 |
| 5. | a) | Explain quick return mechanism of shaping machine. | 10 |
| | b) | Explain cutting speed, feed and depth of cut in milling operation. How machining time is calculated in milling operation. | 10 |
| 6. | | Draw and label tool geometry of the following cutting tools. | |
| | a) | Plain Milling Cutter | 06 |
| | b) | External Broach | 06 |
| | c) | Twist Drill | 08 |