

C. U. SHAH UNIVERSITY

Winter Examination-2019

Subject Name : Manufacturing Processes - II

Subject Code : 4TE05MPR1

Branch: B.Tech (Mechanical)

Semester: 5

Date: 27/11/2019

Time: 10:30 To 01:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

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| Q-1 | Attempt the following questions: | (14) |
| | a) What is misrun in a casting? | 01 |
| | b) What is the function of core in casting? | 01 |
| | c) List out properties of sand used in casting. | 01 |
| | d) Define pattern. | 01 |
| | e) Give the chemical reaction neutral flame. | 01 |
| | f) Define straight polarity. | 01 |
| | g) Write the principle arc welding. | 01 |
| | h) List out defect generated in metal forming process. | 01 |
| | i) Give the example of component produced by forging process. | 01 |
| | j) Which are changes in dimension of component produced by rolling process. | 01 |
| | k) Define MEMS process. | 01 |
| | l) What is nanometer? | 01 |
| | m) Write the application of blow molding. | 01 |
| | n) Define Elastomers. | 01 |

Attempt any four questions from Q-2 to Q-8

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| Q-2 | Attempt all questions | (14) |
| | a) Define manufacturing process and enlist various manufacturing processes. | 07 |
| | b) Which are the types of production system? Define it and write down the advantage and disadvantages. | 07 |
| Q-3 | Attempt all questions | (14) |
| | a) List different types of patterns and explain any two in detail. | 07 |
| | b) Briefly enumerate the steps in sequence for producing casting from shell moulding. | 07 |
| Q-4 | Attempt all questions | (14) |
| | a) Enlist various types of core. Explain any three cores with suitable sketch. | 07 |
| | b) Discuss with neat sketch TIG welding process. State advantages and | 07 |



limitation.

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| Q-5 | Attempt all questions | (14) |
| | a) What are the defects that are generally found in welding? Describe their causes and remedies. | 07 |
| | b) Explain the friction welding process. States advantages and limitation. | 07 |
| Q-6 | Attempt all questions | (14) |
| | a) Explain forward and backward extrusion process with suitable sketch. | 07 |
| | b) Distinguish hot working process and cold working process. | 07 |
| Q-7 | Attempt all questions | (14) |
| | a) Explain Injection Molding Process with neat sketch. | 07 |
| | b) Differentiate Pultrusion and Pulforming. | 07 |
| Q-8 | Attempt all questions | (14) |
| | a) Explain the solid free form fabrication process. | 07 |
| | b) Write a technical note on micromachining of MEMS devices. | 07 |

