

University Institute of Engineering & Technology

(Recognised Under Section 2(f) and 12B of UGC)

Kurukshetra University, Kurukshetra

THEORY EXAMINATION – JULY 2021	
B.TECH - ME	SEMESTER – VI

TIME – 4 Hrs.

M.M. - 75

PAPER - MEC-302

SUBJECT- MANUFACTURING TECHNOLOGY

INSTRUCTIONS TO BE FOLLOWED

- The candidates will be required to attempt All questions in Part-A and Part-B (Compulsory Sections). Attempt any four questions from Part-C selecting at least one from each unit.
- Allotted time for examination is 4 hours that includes time for downloading the question paper, writing answers, scanning of answer sheets and uploading the sheets on the Attendance Sheet Cum Answer Sheet Uploading google form.
- The PDF files should be saved as Roll No. and Subject Code.
- Maximum Page Limit should be 36 (Thirty Six) for attempting the question paper on A4 sheets which could be downloaded and printed from the sample sheets given in the UIET Website.
- Over-attemptation should be avoided.
- Handwriting should be neat and clean and diagrams should be clear and contrasted.
- The candidate should not write their Mobile No. otherwise Unfair Means Case will be made.
- While attempting the paper, the candidate will use blue/black pen only.
- Before attempting the paper, the candidate will ensure that he/she has downloaded the correct question paper. No complaint for attempting wrong question paper by the candidate will be entertained.
- Candidate must ensure that he/she has put his/her signature on each page of the answer sheet used by him/her. Answer sheet without the signature of the candidate will not be evaluated.
- Attempt parts A, B & C separately. Do not inter-mix them. Write neatly & mention the question number clearly.

PART-A (15 Marks)

Q. No. – 1 Answer the following questions.

15x1=15

(i)	List the different types of patters
(ii)	What is meant by core print
(iii)	List the material used for pattern making?
(iv)	Name any four casting defects?
(v)	Define stretch forming?
(vi)	What is a two-high rolling mill?
(vii)	What is an embossing operation?
(viii)	What is forging?
(ix)	What are the two most common alloying metals used in solders?
(x)	Define adhesive bonding
(xi)	Explain the principle of resistance welding
(xii)	The most commonly used flame in gas welding is. a)Neutral b)Oxidising c) Carburising d) All of the above
(xiii)	What is meant by the term green compact?
(xiv)	Define die swell in extrusion
(xv)	What kinds of products are produced by blow molding?

PART-B (20 Marks)

UNIT-I		
2	What are the advantages and disadvantages of permanent mold casting	5
UNIT-II		
3	Distinguish between punching and blanking	5
UNIT-III		
4	Distinguish between brazing and soldering	5
UNIT-IV		
5	Describe liquid phase sintering	5

PART-C (40 Marks)

UNIT-I		
6	Explain the preparation of moulding sand process also explain the properties required for moulding sand.	10
7	Discuss the steps involved in casting process. Explain the role of gating system in casting process with a neat sketch	5 5
UNIT-II		
8	Explain with a neat sketch the process of wire drawing.	10

9	Describe ring rolling and thread rolling process with a neat sketch.	10
UNIT-III		
10	What is explosive welding? Describe its principle, advantages and disadvantages	10
11	Explain the plasma arc welding process with a neat sketch and list out its advantages	10
UNIT-IV		
12	Explain the process powder Injection molding and its application with a neat sketch	10
13	Explain how the plastic sheets are manufactured by thermoforming method. Explain the process of transfer molding and its application.	5 5