R20 Regulation *Subject code: 3P4CD*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech IV Semester Supplementary Examinations, July 2024

Manufacturing Process

(ME)

Maximum Marks: 70 Date:25.07.2024 Duration: 3 hours

Note: 1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		CO	Bloom Tx
1	What is the difference between pattern and casting?	1	L1
2	What are the advantages of true centrifugal casting process?	1	L1
3	Differentiate between Welding and soldering.	2	L1
4	What is oxy acetylene welding?	2	L2
5	How is brazing different from welding.	3	L1
6	Explain the heat affected zones in welding.	3	L1
7	Define forming	4	L1
8	What is hot rolling?	4	L2
9	What is fullering operation?	5	L1
10	List the advantages of metallic pattern materials.	5	L3

Part-B

Answer All the following questions. (5X10M=50Marks)			
11	Explain the principle of investment casting with necessary sketches. (10M)	1	L1
	OR		
12	Describe the working of centrifugal casting with sketch (10M)	1	L1
13	Explain about arc welding operation with a neat sketch (10M)	2	L2
	OR		
14	a) Explain forge welding operation and its limitations. (3M) b) How the heat energy is used in Thermit welding process? (7M)	2	L2
15	a) what are differences between TIG and MIG welding processes? (5M) b) Write a short note on laser beam welding, detailing the applications. (5M)	3	L1
	OR		
16	Discuss magneto particle and radiographic inspection testing of welding(10M)	3	L3
17	a) What are the main characteristics of hot working as compared with cold working process? (5M) b) Explain about hot spinning and cold spinning applications. (5M)	4	L1

	OR			
18	Illustrate wire drawing and Tube drawing.	(10M)	4	L4
19	What are the various stages encountered in drop forging of lever.	(10M)	5	L3
	OR			
20	With a neat sketch, explain hydrostatic extrusion.	(10M)	5	L4