GOVERNMENT OF GUJARAT
LUKHDHIRJI ENGINEERING COLLEGE, MORBI
Mechanical Engineering Department

Subject: Manufacturing Technology (3151912)
Class: 5th Semester

QUESTION BANK (2022-23)

WEAK STUDENTS

Sr. No.	Questions	COs
1	Discuss the factors that need to be considered for selecting the manufacturing processes.	1
2	Explain various types of pattern allowances with a neat sketch.	1
3	Enlist the various type of patterns used in the casting process.	1
4	Differentiate between Pressure die casting and Permanent mould casting.	1
5	Describe the Shell mould casting process in terms of steps involved, its advantages and disadvantages with the help of a neat sketch.	1
6	Define the following terms 1. Blooms 2. Billets 3. Slabs	2
7	Distinguish between Hot rolling and Cold rolling.	2
8	Distinguish between wire drawing and tube drawing with neat sketches.	2
9	Define the following terms: 1. Forward slip 2. Backward slip 3. Neutral point	2
10	Differentiate between Hot and Cold working processes.	2
11	State the purpose of coating on an arc welding electrode.	3
12	Sketch the four types of basic welding joints used in welding.	3
13	Discuss the TIG welding process setup with the help of a neat sketch also enlist advantages, disadvantages, and applications.	3
14	Sketch the three types of flames used in the oxy-acetylene welding process. Give the uses of each.	3
15	Discuss the benefits of the use of inert gas in the TIG welding process.	3
16	State the advantages of various properties of plastic that ease various plastic manufacturing processes.	4
17	Define additives. Explain the function of plasticizers, catalysts, and initiators.	4
18	Sketch and explain the injection moulding process.	4
19	State the significance of the super finishing process.	5
20	With the help of a neat diagram explain the super finishing process.	5

BRIGHT STUDENTS

Sr. No.	Questions	COs
1	Name the eight examples of product manufactured using the casting process and list minimum ten tools used in manual sand casting process.	1
2	During the filling process of a given sand mould cavity by molten metal through a horizontal runner of circular cross section, the frictional head loss of the molten metal in the runner will increase with the increase in average velocity of molten metal" – Justify the statement.	1
3	List name of different die-casting methods. Explain any one with neat sketch.	1
4	Differentiate between Pressure die casting and Permanent mould casting.	1
5	Explain the significance of recrystallisation temperature in metal forming process.	2
6	Enlist the various type of presses used in forging. Explain with neat sketch.	2
7	For the rolling process, Derive the equation for the length of deformation zone $l = \sqrt{R\Delta t}$	2
8	Compare the forged parts and cast parts in terms of grain size, directional properties, defects, and mechanical properties.	2
9	Classify the press tool operation and explain in detail the shearing operation with neat diagram.	2
10	Two 1 mm thick steel sheets are spot welded at a current of 5000 A. Assuming effective contact resistance to be 200 micro-ohms and current flow time of 0.1 seconds, the heat generated during welding.	3
11	Explain the submerged arc welding process with diagram.	3
12	Explain welding power source characteristic.	3
13	Explain in detail electroslag welding process and also write its merits, de-merits?	3
14	Compare the leftward and rightward welding technique with diagram.	3
15	Sketch the four types of basic welding joints used in welding.	3
16	State the purpose of coating on an arc welding electrode.	3
17	Explain in detail about the following process: (i) Compression moulding (ii) Transfer Moulding	4
18	Illustrate and explain the injection moulding process.	4
19	Explain any three thermosetting plastics with its properties and application.	4
20	Differentiate Thermosetting plastics and Thermoplastics.	4
21	Define additives; Explain the function of plasticizers, catalysts, and initiators.	4
22	Compare the lapping and honing super finishing processes.	5
23	Explain the significance of the superfinishing process.	5
24	Write short note on the following: (i) Grinding (ii) Chemical mechanical polishing.	5