Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Sixth Semester B.Tech Degree Examination June 2022 (2019 Scheme)

Course Code: MET372

Course Name: ADVANCED METAL JOINING TECHNIQUES

Max. Marks: 100 **Duration: 3 Hours**

PART A

Answer all questions, each carries 3 marks. Marks

1		Draw the relationship between beam current and depth of penetration in EBW	(3)
2		Write three safety measures used in Laser Beam Welding	(3)
3		Explain the theory of diffusion welding	(3)
4		Write three advantages of cold pressure welding	(3)
5		What are the different types explosives used in explosive welding process	(3)
6		What are the major issues in friction weld joint	(3)
7		Explain the process variables of ultrasonic welding	(3)
8		Explain the operation of furnace brazing	(3)
9		Write three advantages of under water welding	(3)
10		Write three applications of plasma arc welding	(3)

PART B

Answer any one full question from each module, each carries 14 marks.

Module I

11	a)	Explain the working principle of Electron Beam Welding with neat diagram	(10)
	b)	Write four applications of Electron Beam Welding	(4)

OR

12	a)	Explain the process variables and characteristics of Laser Beam Welding	(10)
	b)	Write a short note on weld joint design of Laser Beam Welding	(4)

Module II

13	a)	Explain the cold pressure welding process	(8)
	b)	Explain any two welding parameters in diffusion welding	(6)

OR

14	a)	Explain the working of adhesive welding with neat diagram	(10)
	b)	Write any four applications of adhesive welding	(4)

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