



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

SUMMER-2024	
Exam Seat No.:	
Academic Year:2023-2024	Semester:II
Class:FY	Program:B.Tech
Branch Code:MEC	Pattern:2023
Name of Course:Joining Processes	Course Code:2300118G
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 02 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Question No. 1 Attempt following Question

- 1a) Explain construction and working principle of Tungsten Inert Gas Welding with suitable diagram (6) JPCO1

Question No. 2 Attempt following Question

- 2a) Explain construction and working principle of Spot Welding with suitable diagram (6) JPCO2

Question No. 3 Attempt following Question

- 3a) Explain construction and working principle of Magnetic Particle Inspection Test with suitable diagram and state its advantage and disadvantage (8) JPCO3

OR

- 3b) Explain construction and working principle of X- ray Test with suitable diagram and state its advantage and disadvantage (8) JPCO3

- 3c) Explain construction and working principle of Impact Test with suitable diagram and state its advantage and disadvantage (8) JPCO3

OR

- 3d) Explain construction and working principle of Tensile Test with suitable diagram and state its advantage and disadvantage (8) JPCO3

Question No. 4 Attempt following Question

- 4a) Explain following terminology with suitable diagram in case of riveted joint (8) JPCO4

(a) pitch (b) Diagonal pitch (c) Overlap (d) Margin

OR

- 4b) Explain following terminology with suitable diagram in case of screw thread (8) JPCO4
(a) Major Diameter (b) Minor Diameter (c) Pitch Diameter (d) Thread Angle

- 4c) Explain with suitable diagram caulking and fullering (8) JPCO4

OR

- 4d) Compare Riveted and Bolted Joints (8) JPCO4

Question No. 5 Attempt following Question

- 5a) Explain construction and working principle of Laser beam welding with suitable diagram and state its advantage and disadvantage (8) JPCO5

OR

- 5b) Explain construction and working principle of Electron beam welding with suitable diagram and state its advantage and disadvantage (8) JPCO5

- 5c) Explain construction and working principle of under water welding with suitable diagram and state its advantage and disadvantage (8) JPCO5

OR

- 5d) Explain construction and working principle of Atomic Hydrogen Welding with suitable diagram and state its advantage and disadvantage (8) JPCO5

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