

FIRST SEMESTER EXAMINATION 2025-2026
MECHANICAL MAINTENANCE

PAPER-2

STD : XI
DATE : 15/10/2025

ROLL No. : _____

MARKS: 40
TIME : 2 ½

Instructions:

- (1) All questions are compulsory.
- (2) Figures to the right indicate full marks.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Use of drawing instruments, mathematical tables etc. is permitted.
- (5) Assume suitable data, if necessary.

Q.1 Answer the following (any four)

(4)

Fill in the blanks with appropriate words from those given below

- a) _____ is a type of thread used for power transmission.
(Knuckle threads, V-threads, Square threads, Whithworth threads)
- b) Neutral flame in welding has _____.
(Excess oxygen, Excess acetylene, no acetylene, equal oxygen and acetylene)
- True or False and correct it, if false
- c) Arc welding requires power supply _____.
- d) Gas welding uses electrical energy to melt metals _____.

Match the following

'A'

'B'

- | | |
|----------|--------------------------------------|
| e) Root | a) Distance between adjacent threads |
| f) Crest | b) bottom part of thread groove |
| | c) Top surface of thread |

Q.2 Answer the following in about 8 to 10 lines each (any two)

(6)

- a) Define pitch, root, crest with respect to threads.
- b) Explain square thread with neat sketch.
- c) Draw conventional representation of I - section and T - section.

Q.3 Answer the following in about 8 to 10 lines each (any two)

(6)

- a) Differentiate between AC arc welding and DC arc welding.
- b) Explain care and maintenance of welding transformer.
- c) Explain seam welding with neat sketch.

Q.4 Answer the following (any three)

(6)

- a) Write short note on electric arc welding.
- b) Write the procedure of soldering.
- c) Enlist different types of threads.
- d) Enlist different equipment's used in welding.

Q.5 Answer the following in about 5 to 6 lines each (any three)

(6)

- a) Write safety precautions while handling welding.
- b) Write short note on flux used in soldering.
- c) Explain autogenous and heterogeneous welding.
- d) Write about care for storage and handling of gas cylinders.

Q.6 Answer the following (any two)

(12)

- a) Explain different types fasteners with neat sketch.
- b) Explain different types of flames in gas welding with neat sketch.
- c) Enlist any 5 types of welded joints with neat sketch of each.