

FIRST SEMESTER EXAMINATION 2023

MECHANICAL MAINTENANCE

PAPER-2

STD : XI

DATE : 04/10/2023

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)

- a) The standard colour for the acetylene cylinder is _____.
(black, maroon, green)
- b) _____ is used as filler metal in brazing.
(spelter, resin, solder)

State "True or False" and correct it, if false

- c) The fluxes are chemical compound used to prevent oxidation during welding _____.
d) The standard colour for the oxygen cylinder is green _____

Match The Pairs

- | 'A' | 'B' |
|---------------|--------------------|
| e) T- joint | parallel plates |
| f) Edge joint | overlapping plates |
| | right angle plates |

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

(6)

- a) Difference between soldering and brazing
- b) Draw an involute of triangle of side 35mm
- c) Draw a neat sketch of oxyacetylene welding cylinder set.

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

(6)

- a) Draw an involute of square of side 35mm
- b) Explain straight and reverse polarity with sketch.
- c) Enlist all the basic equipment for oxy-acetylene welding. Explain any two

Q.4 Answer the following (any three)

(6)

- a) write about care for storage and handling of gas cylinders.
- b) Draw nomenclature of screw threads.
- c) Explain different types of welding joint with neat sketch.
- d) Construct a pentagon with circle method dia of circle 80mm

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

(6)

- a) Explain square thread with neat sketch.
- b) Explain Interchangeability.
- c) Define root, crest, effective diameter in terms of threads.
- d) Explain procedure of soldering.

Q.6 Answer the following (any two)

(12)

- a) Diff between AC arc welding and DC arc welding.
- b) Explain the different types of flames in gas welding with neat sketch.
- c) Explain seam welding with neat sketch.