

5. **EdmEiEzD nEÉ |E|xE °EEb:EE :-** 16
- (+)]QE É bEaE ÉvE0+E ;oEo °EEWE.
- (E) EdE°]o +EaEESa ÉEEdE0+E MEvEÉÇ °EEWE
- (Eo) +E>D]o °EE<Qo ÉEaEGaE0]oSa EdEÉÇ +EEdE0°E½p ÉhEÉ.
6. **EdmEiEzD nEÉ |E|xE °EEb:EE :-** 16
- (+) °EEb:EE.
- (1) $2.0249 + 82.0239$
- (2) $81.239 - 29.418$
- (E) ESE ½pÇÉ É jE<+ESa ÉEiE ½piE ESjÉ EdEÉ.
- (Eo) EdEÉE3jÉ EdEÉ EoWEÉ EdEiE0 °EWE É EdE3vE0 PaEE+E iAESa ÉhEÉ EoE.

(ENGLISH)

[TIME ALLOWED — 3 HOURS]

(MARKS — 100)

THEORY OF BENCH FITTING (THEORY-I)

- Instructions.*—(1) Attempt *all* question.
 (2) Illustrate your answer with neat sketches wherever necessary.

Marks

1. (a) Fill in the blanks :— 10
 (i) Bronze is mixture of and
 (ii) Least Count of vernier caliper is
 (iii) Area of triangle =
 (iv) Reamer is used for
 (v) is a two dimensional views.
- (b) Match the following :— 10
- | ‘ A ’ Group | ‘ B ’ Group |
|---------------------|-----------------------------------|
| (i) $\tan \theta$ | (1) To hold round bar |
| (ii) Isometric view | (2) External threading |
| (iii) V block | (3) Opposite side / adjacent side |
| (iv) Die | (4) Internal threading |
| (v) Tap | (5) Three dimensional views. |
2. Write short notes (any *four*) :— 16
 (a) Surface plate
 (b) Angle plate
 (c) Marking block
 (d) V block
 (e) Pipe vice.
3. Attempt any *two* of the following :— 16
 (a) Case Hardening
 (b) Ferrous and Non-ferrous Metal
 (c) Normalising
 (d) Annealing.
4. Explain in brief any *two* of the following :— 16
 (a) Grinding machine
 (b) Hack saw frame
 (c) Minidrafter
 (d) Set square.

[Turn over]

5. Attempt any *two* questions of the following :— 16
- (a) Differentiate between the tap and die.
 - (b) State the mechanical properties of C.I.
 - (c) Explain working of outside micrometer with neat diagram.
6. Attempt any *two* questions of the following :— 16
- (a) Solve—
 - (i) $2.0249 + 82.0239$
 - (ii) $81.239 - 29.418$
 - (b) Draw free hand sketches of bench vice and file.
 - (c) What safety and precaution should be taken at the time of working in workshop.
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