

[१००] [८०००]

MAHARASHTRA STATE BOARD OF SKILL DEVELOPMENT EXAMINATION, MUMBAI

Examination--July, 2020

CERTIFICATE COURSE IN TRACERS

[१००]—3 [१०००]

(BEHÉ MBE—100)

]PBM (EIE+@2)

MBE

5

1. (+) EIE+@E VEEÉ [E@ (EdhEiE) (ESE) :—

(1) EdE] EdE E]EEdhEiE]E; 0³ =

(2) EoE] EoE = {E@E °E 0 EoEiE.

(3) EdE E(Eo E@E@E °E 0 E[E@E VEEiE

(4) @E@E 1/2 BEoE + 1/2

(5) $3 \frac{1}{4} = \dots\dots\dots$

(6) V@10 °E. SE 0 ±E@ 5 °E@. EdE@ iE@ iE]E EHE 1/2.

(E) SMOEoE E@E iE@ + 1/2 (EdhEiE) (ESE) :—

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(1) Uu@E E(E@E EHE.

(2) °E °E 6 mm. iE 8 mm. +E@E EdEiE.

(3) A4 SE EHE E(E 294 × 210 + °EiE

(4) EIE]E]E; 0³ πr^2 + °EiE

(5) $1 + \pi EECiE = 746 E]o$

(6)]0 °C E@E@E@E °E E@E °EiE.

(Eo) JEE+@E (Eo) EdhEiE) (ESE ESE) E@E :—

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(1) °E °E

(2) xEIE]E@E@E

(3) °E@E ±E<E

(4) E@ ±E<E

(5) EIE E EdE E]E E@E

(6) E<E.

(b) @E@E VEE@E VEEYEE :—

5

' + ' ME]o

' E' ME]o

(1) SE@E]E]E; 0³

(+) EEE@E EME

(2) {E@E (EIE@)

(E) $4/3 \pi r^3$

(3) +E@E]E]E; 0³

(Eo) ±E@ × °E

(4) E@E]E]E; 0³

(b) $\pi \times d^2$

(5) ME@E]E]E; 0³

< > $\pi \times d$.

[=±E] E (E@)

(ENGLISH)

[TIME ALLOWED—3 HOURS]

(MARKS—100)

TRACING (THEORY-II)**Marks**

1. (a) Fill in the blanks (any *five*) :— 5
- (i) Area of a right angled triangle is
- (ii) Divider is used for
- (iii) Protactor is used to measure
- (iv) Radian is the unit of
- (v) $3\frac{1}{4} =$
- (vi) If 10 cm is drawn as 5 cm then the scale is
- (b) Write *true* or *false* (any *five*) :— 5
- (i) Section lines indicate measurement.
- (ii) Main titles are drawn by 6 mm. to 8 mm. size.
- (iii) The size of A4 paper is 294×210 .
- (iv) Area of a circle is πr^2 .
- (v) 1 Horsepower = 746 watt.
- (vi) T-square can be used to draw inclined lines.
- (c) Draw symbols of the following (any *five*) :— 5
- (i) Centre line (ii) North direction (iii) Section line,
- (iv) Break line (v) 1st angle method of projection (vi) Pipe.
- (d) Match the pair :— 5
- | ‘A’ Group | ‘B’ Group |
|-------------------------|-----------------------------|
| (i) Area of square | (a) Side^2 |
| (ii) Circumference | (b) $\frac{4}{3} \pi r^3$ |
| (iii) Area of rectangle | (c) length \times breadth |
| (iv) Volume of cone | (d) $\pi \times d^2$ |
| (v) Volume of sphere | (e) $\pi \times d$. |

[Turn over

2. Solve any *one* :— 16
- (a) (i) Two sides of a square are 10 cm. and 10 cm. What is the area ?
 (ii) Draw hexagon having side 6 cm.
- (b) 75 mm. base diameter and 110 mm. long axis lying on H.P. on its generator with axis parallel to V.P. Draw the projection of cone.
3. Solve any *two* :— 16
- (a) Write colour code.—
 (i) Existing road,
 (ii) Permissible building
 (iii) Proposal work.
 (iv) Recreation ground.
- (b) Write the size and uses of sheet :—
 (i) AO (ii) A1 (iii) A2 (iv) A3.
- (c) Explain step wise easier method to prepare a tracing work from an existing drawing sheet in short time.
- (d) Explain the method of making blue prints.
4. Solve any *two* :— 16
- (a) Draw involute touching circle of 60 mm. diameter.
- (b) find the values of x and y :—
 (i) $4x + 5y = 15$
 (ii) $5x - 4y = 12$
- (c) What is blue print ?
- (d) Write a note on azo printing.
5. Solve any *four* :— 16
- (a) Explain the ferrous metal.
- (b) Write fitting tools and define them.
- (c) Name fastenings and explain its uses.
- (d) Colour code.— (i) Plot lines,
 (ii) Future road,
 (iii) Water Supply work,
 (iv) Open space.
- (e) Area of a circle is 400 m^2 what is its diameter ?
6. Solve any *two* :— 16
- (a) Explain photographic method of copying and preparation of prints.
- (b) Applications of tracing.
- (c) Explain the procedure of sensitizing the paper for blue prints.
- (d) Describe the role of a 'Tracer' in an Engineers ' office.
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