

[१००] [८०००]

MAHARASHTRA STATE BOARD OF SKILL DEVELOPMENT EXAMINATION, MUMBAI

Examination—July, 2020

CERTIFICATE COURSE IN WIREMAN

[१२]—3 [१००]

(BETHE MBE—100)

[१००] [८०००] [१००] [८०००] (१००+८००)

MBE

5

1. (+) [१००] [८०००] [१००] [८०००] (१००+८००) :—

(1) $27^0 C = \dots\dots\dots$ [१००] [८०००]

(2) $0.09 [१०] [८०] = \dots\dots\dots [१०] [८०]$

(3) $B.E.E. B.E. [१००] [८००] [१००] [८००] \dots\dots\dots + [१०]$

(4) $n [१०] [८०] [१०] [८०] \dots\dots\dots [१०] [८०]$

(5) $= [१०] [८०] [१०] [८०] [१०] [८०] \dots\dots\dots + [१०]$

(6) $4.97 \times 0.3 = \dots\dots\dots$

(7) $24 \frac{3}{98} - 5 \frac{7}{15} = \dots\dots\dots$

(१) [१००] [८०००] [१००] [८०००] (१००+८००) :—

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(1) $\log_{10} 10 = 1$ [१००] [८०००]

(2) $[१०] [८०] [१०] [८०] [१०] [८०] + [१०] + [१०]$

(3) $225 [१०] [८०] [१०] [८०] 0.15 + [१०]$

(4) $[१०] [८०] [१०] [८०] [१०] [८०] [१०] [८०] = [१०] [८०] [१०] [८०] [१०] [८०]$

(5) $\tan \theta = \frac{\sin \theta}{\cos \theta}$ [१००] [८०००]

(6) $[१०] [८०] [१०] [८०] [१०] [८०] [१०] [८०] + [१०] + [१०]$

(7) $x [१०] [८०] [१०] [८०] [१०] [८०] = [१०] [८०] + [१०] [८०]$

(१) [१००] [८०००] [१००] [८०००] (१००+८००) :—

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(1) $[१०] [८०] [१०] [८०] [१०] [८०]$

(2) $[१०] [८०] [१०] [८०]$

(3) $[१०] [८०] [१०] [८०] [१०] [८०]$

(4) $[१०] [८०] [१०] [८०]$

(5) $[१०] [८०] [१०] [८०]$

(6) $[१०] [८०] [१०] [८०] [१०] [८०]$

[१००] [८०००]

(ENGLISH)

[TIME ALLOWED—3 HOURS]

(MARKS—100)

WORKSHOP CALCULATION, SCIENCE AND DRAWING (THEORY-III)**Marks**1. (a) Fill in the blanks (any *five*) :—

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(i) 27°C = celvine.

(ii) 0.09 meter = milimeter.

(iii) Unit of density in MKS system is

(iv) In decimal form $\frac{8}{13}$ is

(v) Unit of energy in S.I. system is

(vi) $4.97 \times 0.3 =$ (vii) $24 \frac{3}{98} - 5 \frac{7}{15} =$

5

(b) State *true* or *false* (any *five*) :—(i) $\log_{10} 10 = 1$

(ii) Ohm is the unit of current.

(iii) 225 is the square root of 0.15

(iv) As per pythagoras thorem—

Hypotenuse = addition of two side's square.

(v) $\tan \theta = \frac{\sin \theta}{\cos \theta}$

(vi) Bronze is the mixture of copper and alluminium.

(vii) Neutron is always neutral.

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(c) Draw following free hand sketch (any *five*) :—

(i) Long break line.

(ii) Drawing board.

(iii) Standard wire guage.

(iv) Gimlet

(v) Tenon saw

(vi) Adjustable spanner.

[*turn over*]

2. Attempt any *two* of the following :—

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(a) Solve with logarithm.

(i) $\sqrt{0.02}$

(ii) $\sqrt{0.004426}$

(b) Solve—

If $x = 3$,

$x^2 - 4x + 16 = ?$

(c) Solve,—

(i) $4.8 \div 1.2 = ?$

(ii) $62.32 \div 2.5 = ?$

3. Attempt any *two* of the following :—

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(a) Give the definitions.—

(i) Stress

(ii) Elasticity.

(b) Explain step pulley.

(c) A ladder of 12.5m. length is kept touch with wall. If bottom end of ladder is 6.3 m. away from wall then on what height will the upper end of ladder ?

(d) Write the different types of nut.

4. Solve following question :—

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(a) Draw a ellipse by concentric circle method having major axis and minor axis 50 mm. and 30 mm. respectively.

(b) Draw a triangular prism have base is 30 mm. and height is 45 mm.

5. Draw in third angle projection front view, top view and side view of the object as shown in isometric view :—

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