

MAHARASHTRA STATE BOARD OF SKILL DEVELOPMENT EXAMINATION, MUMBAI

Examination--July, 2020

CERTIFICATE COURSE IN ELECTRICAL SUPERVISOR ON CONSTRUCTION SITE

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(BEÚHÉ ~~ME~~—100)

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|--|---|
| (1) $I \in [E]_{\mathcal{D}}$ | (+) $M \in E \in [E]_{\mathcal{D}}$ |
| (2) $+ \{a, B \vdash, \circ\} \in [E]_{\mathcal{D}}$ | (\vdash) $M \in \vdash \in [E]_{\mathcal{D}}$ |
| (3) $\vdash \in E$ | (E) $a \in \vdash \in E$ |
| (4) $E \in [E]_{\mathcal{D}}$ | (b) $\vdash \in [E]_{\mathcal{D}}$ |
| (5) $\vdash \in [E]_{\mathcal{D}}$ | (\vdash) $m \in \vdash \in [E]_{\mathcal{D}}$ |

(Eò) **SHE**ò Eò **®** **®** úiÉäÉ±É½þ (ÉðñÉiÉä½þ) (HSE) :—

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- [illegible]

(b) $E^{\circ}(\text{O}_2/\text{H}_2\text{O}) = 1.23 \text{ V}$:-

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- (1) $+f_{\text{f}}^{\text{af}} \cdot \text{of}_0 \cdot b_{\text{f}} \cdot \{f_0$ (2) $+f_{\text{f}}^{\text{af}} \cdot \text{of}_0 \cdot]_{\text{f}} \cdot \{f_0$ (3) $B_{\text{f}}^{\text{f}} \cdot \text{of}_0 \cdot \text{af}_0$
 (4) $<_{\text{f}} B_{\text{f}}^{\text{f}} \cdot \text{of}_0 \cdot \text{af}_0$ (5) $b_{\text{f}} \cdot +_{\text{f}} B_{\text{f}}^{\text{f}}$

(ENGLISH)

[TIME ALLOWED—3 HOURS]

(MARKS—100)

ELECTRICAL INSTALLATION (THEORY-II)**Marks**

1. (a) Fill in the blanks :—

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- (i) D. O. L. starter is used for
- (ii) Auto transformer has windings.
- (iii) gas is used in incandescent lamp.
- (iv) The unit of magnetic flux is
- (v) starter is used for starting the D. C. compound motor.

(b) Match the following :—

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'A' Group**'B' Group**

- | | |
|-----------------------|----------------------------------|
| (i) Thermostat | (a) Good conductor |
| (ii) D. O. L. starter | (b) Good insulator |
| (iii) Mica | (c) Universal motor |
| (iv) Copper | (d) Temperature controller |
| (v) Hair dryer | (e) Three phase induction motor. |

(c) State *true* or *false* :—

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- (i) Shaded pole motor is used in drill machine.
- (ii) The unit of energy is kilowatt hour.
- (iii) In series circuit voltage is same.
- (iv) Multimeter is used for voltage current and resistance.
- (v) D. O. L. starter is used for upto 5 H.P. motor.

(d) State the full forms :—

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- (i) I. C. D. P. (ii) I. C. T. P. (iii) M. C. B.
- (iv) E. L. C. B. (v) D. O. L.

[Turn over

2. Attempt any *two* of the following:— 16
- (a) Explain the working principle of Ohmmeter.
 - (b) Explain the types of A. C. starters.
 - (c) Differentiate between single phase transformer and three phase transformer.
 - (d) Explain the parts of Geyser.
3. Answer the following question (any *two*) :— 16
- (a) Explain the troubleshooting of ceiling fan.
 - (b) Advantages of single phase supply and three phase supply.
 - (c) Explain the sodium vapour lamp with neat C.K.T. diagram.
 - (d) Explain the parts of electrical hot plate.
4. Answer the following questions (any *two*) :— 16
- (a) (i) Draw the circuit diagram of ceiling fan with regulator
(ii) Three phase induction motor with D. O. L. starter.
 - (b) Explain the parts of three phase induction motor.
 - (c) Write the function of overload coil and N. V. C. of D. O. L. starter.
 - (d) Explain the manually operated star delta starter.
5. Short notes on (any *four*) :— 16
- (a) Mixer
 - (b) Plate earthing
 - (c) Incandescent lamp
 - (d) Types of taps and values
 - (e) Shaded pole motor
 - (f) Ohmmeter.
6. Write the following (any *two*) :— 16
- (a) Explain the single phase repulsion type motor.
 - (b) Explain the function of breather and conservator tank of transformer.
 - (c) Explain the single phase capacitor start capacitor run motor.
 - (d) Write the working principle of multimeter.
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