

**MAHARASHTRA STATE BOARD OF VOCATIONAL EXAMINATIONS, MUMBAI**

Examination, July 2014

## CERTIFICATE COURSE IN SCOOTER, MOTORCYCLE SERVICING

[ἔργ—3 iε°ε]

(BEthÉ NÖÉ—100)

$$\langle \hat{E} \hat{E} \rangle + \hbar b : \hat{B} :_0 \langle \hat{\phi}^{\otimes 2} \rangle \leq \langle \hat{\phi}^{\otimes 2} \rangle + \hbar \langle \hat{\phi}^{\otimes 2} \rangle \leq (\hat{E} + \hbar - 1)$$

- 086E.E.-(1) 0f EC |E|xE 0EdE Eha +E EPEo +Ez/E.  
 (2) +E EPEo iEa 0EEo +E biaE Ed fA.  
 (3) =VE TOEdb+E +EO {EAC NME nqEC EEIEE.

**NÉÉ**

5

- [illegible]

- (1) C±EŠ + PĒā±EÖE @GExEE ..... iēk EE Ē@ Eā+faEO +°Eīā
- (2) E[°]āE ..... āEE vEEĒEE°E EĒE ±EāEā +°Eīā
- (3) EE½ SĒE±EE ĒĒEE ..... ēnūEĒEESE ;ōCiE C±EŠ ĒE½PĒE =(EĒEE  
E@EE.
- (4) रस्त्याने जाताना गाडीला बसणारे धक्के शोषण्यासाठी असणाऱ्या यंत्रणेला  
..... +°Eā ½PĒEE.
- (5) YĒo Eā°SĒE īE³jĒEO +ĒāfaiāE ..... {EĒE@ (E½ ]ōEōiE (EĒ ĒEā  
VĒEā
- (6) ENE+ @EECofEvāE ..... EN+@u]āE +°Eīā

- (၁၆) **SHILO** Eoð **SHILO** u iēa °EÉNEE (Eoðhēiēāp) (HSE) :-

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- [illegible]

- (Eð) JÉÉ±É0±É °ÉÆÉÆÉÉÉÉ {ÉÉÉÉ °ü{Éä É±É½É (jòCíÉ {ÉÉÉ) :-

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- (1)  $\neq \emptyset, b \neq \emptyset, \neq \emptyset$
- (2)  $BS \neq \emptyset, \neq \emptyset$
- (3)  $\neq \emptyset, \neq \emptyset, \{ \neq \emptyset, \neq \emptyset \} \neq \emptyset$
- (4)  $+ \neq \emptyset, \neq \emptyset, < \neq \emptyset, \neq \emptyset$
- (5)  $\{ \neq \emptyset, B \neq \emptyset, + \neq \emptyset \}$
- (6)  $\neq \emptyset, \neq \emptyset, \{ \neq \emptyset, \neq \emptyset \} \neq \emptyset$



**(ENGLISH)**

[TIME ALLOWED — 3 HOURS]

(MARKS — 100)

**ENGINE AND DIFFERENT TYPES OF SYSTEM (THEORY-I)**

- Instructions.*—(1) Attempt *all* questions.  
 (2) Illustrate your answers with neat sketches, wherever necessary.  
 (3) Figures to the right indicate *full* marks.

**Marks**

1. (a) Fill in the blanks :— 5
- (i) Construction of Clutch assembly is based on ..... principle.
  - (ii) Piston is made-up of ..... Metal.
  - (iii) Clutch lever should be used only at the time of changing the ..... while driving.
  - (iv) A system which absorbs the shocks to the vehicle, while running on road is called as ..... system.
  - (v) A oil which is in the bottom of Crank Case is lifted by ..... pump and sent it into tank.
  - (vi) In gear-box ..... gear train is available.
- (b) State whether *true* or *false* :— 5
- (i) Handle bar is fitted in the fork.
  - (ii) Hydraulic Brake System is used in Motorcycle, Scooter.
  - (iii) Tyre trade is most important for gripping of tyre on road.
  - (iv) Gear-box is constructed for suitable controlling of speed and force.
  - (v) Water is used in Battery.
- (c) Write a full forms of the following terms :— 5
- (i) B.D.S.
  - (ii) H.P.
  - (iii) C.B. Point
  - (iv) I.C. Engine
  - (v) P.S.I.
  - (vi) 'U' Joint.
- (d) Match the following pairs :— 5
- | 'A' Group        | 'B' Group       |
|------------------|-----------------|
| (i) Brake        | (1) More Power  |
| (ii) Clutch      | (2) Lead Acid   |
| (iii) First Gear | (3) Wet Type    |
| (iv) Battery     | (4) SAE 90      |
| (v) Gear Oil     | (5) Brake Shoes |
|                  | (6) ASE 90.     |

[Turn over]

2. Give answers of the following (any *two*) :— 16
- (a) Write the working of steering system.
  - (b) Write briefly the procedure of cylinder head decarburization.
  - (c) Explain the construction of spark plug, with neat sketch.
  - (d) Draw a neat diagram of Simple Carburettor with labelling.
3. Give the answers of the following (any *two*) :— 16
- (a) Discuss on — Effect on tyre life of tyre air-pressure.
  - (b) Explain the engine coding system of two wheeler.
  - (c) Write a characteristic of Good Lubricant.
  - (d) Give usage of fuel filter.
4. Give the answers of the following (any *two*) :— 16
- (a) Write a construction and working of clutch used in Motorcycle.
  - (b) Explain the construction and working of Single Cylinder air-cooled Petrol Engine.
  - (c) Draw a neat labelled diagram of Telescopic Shock Absorber.
  - (d) Write a construction and working of Constant Mesh Gear-box.
5. Write a short note (any *four*) :— 16
- (a) Magneto Ignition System
  - (b) Battery
  - (c) I.C. Engine
  - (d) Scooter Chassis
  - (e) Tyre Rotation.
6. Give the answers in brief (any *two*) :— 16
- (a) Write a construction and working of distributor.
  - (b) Draw a neat sketch of Horn and give names of various parts.
  - (c) Draw a circuit diagram of Brake Light.
  - (d) Explain the Electronic Ignition.
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