

(ENGLISH)

[TIME ALLOWED—3 HOURS]

(MARKS—100)

DIESEL MECHANIC (THEORY-I)**Marks**1. (a) Fill in the blanks with proper word (*any five*) :—

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(i) Generally piston is made of

(a) cast iron (b) aluminium alloy (c) mild steel.

(ii) Sheet above 8 mm size is called

(a) plate (b) sheet (c) patra.

(iii) Diameter of cylinder is called

(a) Stroke length (b) stroke (c) bore.

(iv) Key-way is type of fastner.

(a) permanent (b) temporary (c) half permanent.

(v) Soldering is a process of joining metal with strength.

(a) low (b) medium (c) high.

(vi) Least count of metric vernier caliper is

(a) 0.2 mm. (b) 0.02 mm. (c) 0.002 m.m.

(b) State whether *true* or *false* (*any five*) :—

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(i) Dial gauge is used to check the gap of the spark plug.

(ii) Injector is used in diesel engine.

(iii) Round nose plier is used to remove circlip from piston.

(iv) Air cooling system is used in two wheeler.

(v) The combustion of fuel takes place outside the cylinder in
I. C. Engine.

(vi) Reamer is used to make threads in round holes.

(c) State the long form (*any five*) :—

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(i) S.A.E.

(ii) B.H.P.

(iii) C.I. Engine

(iv) I.H.P.

(v) H.P.

(vi) F.I.P.

- (d) Match the pairs :— 5
- | ‘ A ’ Group | ‘ B ’ Group |
|----------------|---------------------------|
| (i) Files | (a) Compare volume |
| (ii) Hammer | (b) Measuring right angle |
| (iii) Caliper | (c) Gudgeon pin |
| (iv) Piston | (d) Remove extra material |
| (v) try-square | (e) Cut metal |
| | (f) Ball pein. |
2. Attempt any *two* of the following :— 16
- (a) Explain sheet metal joints with their uses.
 - (b) Explain the compression testing of cylinder.
 - (c) Explain firing order. Write the firing order of Four, Six and Eight cylinder engine.
 - (d) Which are the parts of cylinder liner and mention the reasons of their erosion.
3. Attempt any *two* of the following :— 16
- (a) Explain water cooling system with neat sketch.
 - (b) Explain cranshaft with neat sketch.
 - (c) Explain solding and breaing process.
 - (d) What is scavenging and explain its types.
4. Attempt any *two* of the following :— 16
- (a) Write the importance of lubricants and their properties.
 - (b) Compare between two stroke and four stroke engine.
 - (c) Explain the outside micrometer and its maintenance.
 - (d) Which precautions to be taken while using gasket ?
5. Write short notes on (any *four*) :— 16
- (a) Radiator
 - (b) Piston pin
 - (c) Try-square
 - (d) Shell Bearing
 - (e) Connecting rod.
6. Attempt any *two* of the following :— 16
- (a) Explain different types of fire extinguishers.
 - (b) Explain combustion chamber and its types.
 - (c) Explain function of camshaft and driving methods of camshaft.
 - (d) Explain working of four stroke diesel engine with neat sketch.
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