KERALA GOVERNMENT CERTIFICATE EXAMINATION IN AUTOMOBILE ENGINEERING — JUNE, 2016

AUTOMOBILE ENGINEERING DRAWING

[Time : 3 hours]

(Maximum marks : 100)

[Note :— 1. Use drawing sheet of size A2.
2. Assume missing dimensions if any suitably.
3. Sketches accompanied.]

PART — A
(Maximum marks : 30)

Geometrical Drawing
(Answer any three questions. Each question carries 10 marks.)

I Inscribe a regular hexagon in a circle of diameter 60mm by diameter division method.

II With the help of a sketch explain elements of dimensioning.

III List the drawing instruments and materials necessary in preparing a drawing.

IV Figure I shows pictorial view of a machine part. Draw the following views.
   (a) Elevation in the direction of arrow
   (b) Plan

V Figure II shows orthographic views of a block. Prepare an isometric drawing of it.

   (3 x 10 = 30)

PART — B
(Maximum marks : 70)

Automobile Engineering Drawing

VI Figure III shows an I.C. engine crankshaft used for a four cylinder engine. Draw the following views.
   (a) Elevation  (b) End view  (c) Top view

   (40)

[13]
VII  Prepare neat proportional sketches of any three clearly indicate parts.
   (a) Master cylinder
   (b) 4 stroke petrol engine piston, 80mm dia
   (c) Side valve operating mechanism
   (d) 3 speed constant mesh gear box
   (e) Worm and roller steering.  

\[
\text{Marks} 
\]

\[
(3 \times 10 = 30) 
\]

\[
\begin{align*} 
\text{Geometrical Drawing} \\
\text{(Total marks: 100, time: 3 hours)} \\
\end{align*} 
\]

III apse and mention its dimension clearly. 
(a) 
(b) 
(c)  

IV  

\[
\text{Automobile Engineering Drawing} 
\]

\[
\text{(Total marks: 70, time: 3 hours)} 
\]

VII  
(a)  
(b)  
(c)  

\[
\text{Marks} 
\]

\[
(3 \times 10 = 30) 
\]
Machine block

Figure - I

Figure - II

I.C. ENGINE CRANK SHAFT
(FOUR CYLINDER)

Figure - III