KERALA GOVERNMENT CERTIFICATE EXAMINATION IN
AUTOMOBILE ENGINEERING — JUNE, 2017

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)

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

<table>
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| Explain the following instruments.
  (a) Scale set
  (b) Set square
  (c) T - Square
  (d) French curve

With the help of a drawing show the following elements of drawing.
  (a) Projection line
  (b) Dimension line
  (c) Leader line
  (d) Origin indication

Inscribe a regular octagon in a circle of 100 mm diameter. Measure the side
of the octagon.

Construct an ellipse of full size by method of concentric circle. Take major axis
and minor axis as 80 mm and 50 mm respectively.

Pictorial view of an object is given in Fig. 1. Prepare the top view.

PART — B

(Maximum marks: 70)

Dismantled views of a connecting rod of an IC engine is shown in Fig. II.
Assemble the parts and draw the following views.
  (a) Elevation
  (b) Plan

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VII Prepare neat proportionate sketches of any three. Clearly indicate parts.
(a) Four stroke petrol engine piston
(b) Four cylinder engine crankshaft
(c) Single plate clutch assembly
(d) Three speed constant mesh gear box.
(e) Rack and pinion type steering mechanism.

(3 \times 10 = 30)