

SV-109

Total No. of Pages : 2

Seat No.	
----------	--

B.E. (Mechanical) (Part - IV) (Semester - VIII) (Revised)
Examination, May - 2018
ADVANCED I.C. ENGINES (Elective - III)
Sub. Code : 68515

Day and Date : Monday, 14-05-2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instruction :
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.

Q1) Answer any two

- a) Draw the sketch of a Carter downdraught carburetor. How do the idle & low speed circuit work in this carburetor. [8]
- b) Describe briefly Multipoint fuel injection system. [8]
- c) Enlist fuel characteristics and explain S.I. engine fuel rating. [8]

Q2) a) Explain different types of sensors used in electronic fuel injection system for C.I. engine. [8]

- b) Explain advanced turbo-charging system of C.I. engine. [8]

Q3) Write a short note on any three of following. [18]

- a) S.I. engine combustion phenomenon.
- b) Different types of direct injection open combustion chamber for C.I. engine.
- c) Generation of swirl during induction.
- d) Swirl chamber for Indirect injection C.I. engine.

P.T.O.

Q4) Answer any two

- a) What are the Advantages & Disadvantages of Hydrogen as alternative fuel in S.I. engine. [8]
- b) What modifications are required in S.I. engine to use ethanol as fuel? Explain. [8]
- c) Explain Combustion & Emission characteristics of biodiesels as alternative fuels for C.I. engine. [8]

Q5) a) Enlist methods of controlling emissions & explain anyone method with neat sketch. [8]

b) Give brief account of emissions from C.I. engines. [8]

Q6) Write a short note on any three of following. [18]

- a) Six stroke engine
- b) Gasoline Direct Injection system
- c) National emission norms
- d) Variable Valve timing engine

