Pramukh Swami Science and H.D. Patel Arts College,
C.C. Agriculture and Soil sciences Sem III

Sub: AS-302 (Farm Layout, Development, Management and Field Plot Technique)

Date: 16/11/2018 **Maximum marks: 40**

Q.1 Answer all questions. Each question carries 1 mark. (10*1=10 Marks)

(1) Spark ignition engine is working on ____ principle.
(a) C.V.C. (b) C.P.C. (c) Dual (d) C.R.E

(2) In which stroke of four stroke engine both valve is remain open?
(a) Power (b) Compression (c) Both (d) None of the above

(3) In four stroke engine cam shaft gear has ____ teeth as compare of crank shaft gear.
(a) Same (b) Twice (c) Thrice (d) Half

(4) Which one is link between piston and crank?
(a) Crank shaft (b) connecting road (c) piston pin (d) gudgeon pin

(5) The inner diameter of the cylinder is called a _____.
(a) Bore (b) Stroke (c) Top dead centre (d) Bottom Dead centre

(6) If a scale is 1cm= 5 m then Representative Fraction =_____
(a) 1:5 (b) 1:50 (c) 1:500 (d) 1:5000

(7) Geodetic surveying is also known as _____ surveying .
(a) Plane (b) Trigonometrical (c) Agricultural (d) land

(8) In Geodetic surveying, the triangle formed by any three point is Called
(a) Plain triangle (b) Non- spherical (c) Spherical (d) None of the above

(9) Plane surveying is carried out for a area of less than ____ km^2.
(a) 25 (b) 250 (c) 2500 (d) None of the above

(10) Which engine has maximum compression ratio?
(a) Diesel (b) Petrol (c) Gas (d) All

Q. 2 Answer any 4 questions. Each question carries 5 marks. (4*5=20 Marks)

(1) Define heat engines. Give classification of heat engine in detail.
(2) Explain the fundamental principles of surveying.
(3) Explain basic principle of EC engine with diagram.
(4) Comparison of IC engine and EC engine.
(5) Explain trigonometrical surveying.

Q.3 Answer any 1 question. Each question carries 10 marks. (1*10=10 Marks)

(1) Explain brief working of two stroke cycle with diagram for petrol engine.
(2) Define representative fraction, construct a diagonal Scale for 1 cm= 5 m and represent the following measurements (a) 40 (b) 45 (c) 48.5 (d) 58.