

Award Roll

B Tech 8th Semester

Mechanical Engineering Department

Mid Term Examination 20th May 2020

Subject: MEC802 - Internal Combustion Engines

S. No	ENR No	Q1 10	Q2 10	Q3 10	Q4 10	Total 30	Total 50	Total 50
1	14/16	9	8.5	9		26.5	44.1	45
2	15/16	9.5	8.5 X	9	10	28.5	47.5	48
3	21/16	10	8		9	27	45	45
4	31/16	9	8.5	9		26.5	44.1	45
5	36/16	9	8.5	10		27.5	45.8	46
6	57/16	10	8.5		8.5	27	45	45
7	64/16	10	9		10	29	48.3	49
8	67/16	9	8.5	10		27.5	45.8	46
9	82/16	10	8.5		8.5	27	45	45
10	90/16	9	8.5	10		27.5	45.8	46
11	102/16	10	9	10		29	48.3	49
12	106/16	10	7.5	9		26.5	44.1	45
13	109/16	10	9	9		28	46.6	47
14	113/16	10	9	9	9 X	28	46.6	47
15	114/16	10	8.5	9		27.5	45.8	46
16	118/16	8.5	8.5	9		26	43.3	44
17	128/16	10	8		10	28	46.6	47
18	133/16	10	8	9		27	45	45
19	140/16	10	7.5		8.5	26	43.3	44

Dated: 16-06-2020

Prof M Marouf Wani

I/C Internal Combustion Engines

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20	146/16	9	8	10		27	45	45
21	150/16		8	9	10	27	45	45
22	154/16	10	7.5		9	26.5	44.1	45
23	158/16							Not Submitted
24	191/16	10	9		10	29	48.3	49
25	195/16	10	7.5		9	26.5	44.1	45
26	196/16	10	9		10	29	48.3	49
27	197/16	10	7.5		8.5	26	43.3	44
28	198/16	10	9		10	29	48.3	49
29	211/16	10	7.5		8.5	26	43.3	44
30	212/16							Not Submitted
31	219/16	8	7.5		8.5	24	40	40
32	222/16	9	7.5	9		25.5	42.5	43
33	229/16	10	9		9	28	46.6	47
34	242/16	10	7.5		8.5	26	43.3	44
35	247/16	10	9		10	29	48.3	49
36	251/16	8	7.5	10		25.5	42.5	43

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37	258/16	10	8.5 X	9	10	29	48.3	49
38	263/16	10	8.5	9		27.5	45.8	46
39	264/16	10	9		10	29	48.3	49
40	277/16	9	8	9		26	43.3	44
41	281/16	10	9	9		28	46.6	47
42	283/16	10	9.5		10	29.5	49.1	50
43	295/16	9	9		10	28	46.6	47
44	313/16	10	8.5		10	28.5	47.5	48
45	324/16	9	8.5	9		26.5	44.1	45
46	331/16	10	9	9		28	46.6	47
47	333/16	10	8 X	9	10	29	48.3	49
48	345/16							Not Submitted
49	349/16	3	7.5		8.5	19	31.6	32
50	354/16	10	7.5	6.5		24	40	40
51	358/16	5	7.5		8.5	21	35	35
52	383/16	10	7.5		9	26.5	44.1	45
53	395/16	10	8.5 X	9	10	29	48.3	49
54	402/16	10	8.5	9		27.5	45.8	46
55	75/15-16	9	8	9		26	43.3	44

Dated: 16-06-2020

Prof M Marouf Wani

I/C Internal Combustion Engines

MID-TERM ASSIGNMENT
B Tech 8th Semester Mechanical
Subject: Internal Combustion Engines
Maximum Marks = 30
Note: Do Any Three Questions
NOTE: SUBMIT WITHIN THREE DAYS BY e MAIL

Q1. Classify Internal Combustion Engines

(10)

Q2. Define the following terms

- (a) Rated Power and rated speed
- (b) Compression Ratio
- (c) Air-Fuel Ratio
- (d) Brake Specific Fuel Consumption
- (e) Volumetric Efficiency

(2*5)

Q3. A three cylinder four stroke cycle spark ignition engine is being designed to provide a maximum brake torque of 90 Nm at 3500 rpm. Using the concept of mean effective pressure, calculate the following engine design and operating parameters:

- (a) Engine Displacement Volume
- (b) Bore
- (c) Stroke
- (d) Maximum Rated Power at the mean piston speed of 15 m/sec.

(2.5*4)

Q4.

- (a) With the help of pressure-crank angle diagram discuss the combustion in spark ignition engines.
- (b) Discuss maximum brake torque spark timing or MBT timing, with the help of pressure versus crank angle diagram and torque versus spark-advance diagram.

(6,4)

Dated: 15-05-2020

I/C: Prof M Marouf Wani

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