

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
1	14/16	9	8.5	9		26.5
2	15/16	9.5	8.5 X	9	10	28.5
3	21/16	10	8		9	27
4	31/16	9	8.5	9		26.5
5	36/16	9	8.5	10		27.5
6	57/16	10	8.5		8.5	27
7	64/16	10	9		10	29
8	67/16	9	8.5	10		27.5
9	82/16	10	8.5		8.5	27
10	90/16	9	8.5	10		27.5
11	102/16	10	9	10		29
12	106/16	10	7.5	9		26.5
13	109/16	10	9	9		28
14	113/16					Not Submitted
15	114/16	10	8.5	9		27.5
16	118/16	8.5	8.5	9		26
17	128/16	10	8		10	28
18	133/16	10	8	9		27
19	140/16	10	7.5		8.5	26

Dated: 08-06-2020

Prof M Marouf Wani

I/C Internal Combustion Engines

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S. No	ENR No	Q1 10	Q2 10	Q3 10	Q4 10	Total 30
20	146/16	9	8	10		27
21	150/16		8	9	10	27
22	154/16	10	7.5		9	26.5
23	158/16					Not Submitted
24	191/16	10	9		10	29
25	195/16	10	7.5		9	26.5
26	196/16	10	9		10	29
27	197/16	10	7.5		8.5	26
28	198/16	10	9		10	29
29	211/16	10	7.5		8.5	26
30	212/16					Not Submitted
31	219/16	8	7.5		8.5	24
32	222/16	9	7.5	9		25.5
33	229/16	10	9		9	28
34	242/16	10	7.5		8.5	26
35	247/16	10	9		10	29
36	251/16	8	7.5	10		25.5

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S. No	ENR No	Q1 10	Q2 10	Q3 10	Q4 10	Total 30
37	258/16	10	8.5 X	9	10	29
38	263/16	10	8.5	9		27.5
39	264/16	10	9		10	29
40	277/16	9	8	9		26
41	281/16	10	9	9		28
42	283/16	10	9.5		10	29.5
43	295/16	9	9		10	28
44	313/16	10	8.5		10	28.5
45	324/16	9	8.5	9		26.5
46	331/16	10	9	9		28
47	333/16	10	8 X	9	10	29
48	345/16					Not Submitted
49	349/16	3	7.5		8.5	19
50	354/16	10	7.5	6.5		24
51	358/16	5	7.5		8.5	21
52	383/16	10	7.5		9	26.5
53	395/16	10	8.5 X	9	10	29
54	402/16	10	8.5	9		27.5
55	75/15-16	9	8	9		26

Dated: 08-06-2020

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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