Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

2.5.1

Mechanism of Internal assessment is transparent and robust in term of frequency and mode

- Question paper setting
- Conduction
- Assessment
- Result Declaration

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Frequency of Internal Examination followed as per the Academic Calendar

Examination Calendar

Shri Vithal Education & Research Institute's

COLLEGE OF ENGINEERING, PANDHARPUR

ACADEMIC CALENDAR FOR THE YEAR 2019-20 SEMESTER - II (Jan. to Jun. to 2020)

NBA accreditated All Eligible UG Programmes and NAAC Accreditated Institute

DEC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE
																FC							GMS		F12					B	B
JAN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI
													SCM		F13			ARCM								FN6/ SV		GRM			MP/ SC
FEB	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT		
	ISE-I	ISE-I	ISE-I	ISE-I/D		ISE-I	LT	IV	IV	LT	LT/R		LT						FN7		F14						MP/ SC			
MAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE
		MP/SC	D		ISE-II	ISE-II	ISE-II	FN8/ RSHM	ISE-II	ISE-II	LT	LT	F15	LT	PM/LT	LT/R			MP/SC			UGP	UGP		F16		SCM				UGS
APR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	
		F17	D		SC/	F18	ISE-III	ISE-III	ISE-III	F19	ISE-III	ISE-III	LT	FN9/ SV	LT	LT	LT/R			IO	PG	PG	PG	PG	PG		PG	PG	PG	PG		
MAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN
	F20	UE		UE	UE	UE	F21	UE	UE		UE	UE	UE	UE	UE	UE		UE	UE	UE	UE	UE	F22		R&D	R&D	R&D	R&D	R&D	UE	
JUN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	
									GSM						PD/ ARS																

Date	Symbol	Events
1st Dec.27th Dec.		In-Plant, Campus Recruitment,GATE Training
15th Dec.	FC	File Completion Date
22nd Dec.	GMS	General Meeting of Staff
25th Dec.	F12	Chrismas -Natal
30th & 31st Dec.	B	Beats 2K19
1st Jan.to 5th Apr		Teaching Period
As per schedule		Weekly Off /Festival
13th Jan.	SCM	Student Council Meeting
15th Jan.	F13	Makar Sankranti
18th Jan	ARCM	Anti- Ragging Committee Meeting
26th Jan	FN 6& SV	Republic Day & SVERIAN Quarterly Issue Release Day
28th Jan	GRM	Grievance Redressal Meeting
31st Jan	MP/ SC	Mock- Parliament / Mock Security Council (MECH Dept.)
1st Feb. to 6th Feb.	ISE-I/R	ISE- I (Result on 5th Day after last paper)
As per schedule	D	Display of Defaulters List and Letters to Parents Accordingly
8th & 9th Feb.	IV	Industrial Visit
19th Feb	FN 7	Shivaji Maharaj Birth Anniversary
21st Feb	F14	Mahashivratri
28th Feb.	MP/SC	Mock- Parliament / Mock Security Council (CIVIL Dept.)

Date	Symbol	Events
2nd Mar	MP/SC	Mock- Parliament / Mock Security Council (ENTC Dept.)
5th Mar. to 10th Mar.	ISE-II/R	ISE- II (Result on 5th Day after last paper)
8th Mar.	FN 8& RSHM	Womens' Day & Restrict of Sexual Harassment Meeting
11th to 16th Mar.	LT	Lab Test on 1st Practical session after ISE of the concerned subject
13th Mar.	F15	Rang Panchami
15th Mar.	PM	Parents' Meet For FE & MECH, ENTC.
19th Mar.	MP/ SC	Mock- Parliament / Mock Security Council (CSE Dept.)
22nd & 23rd Mar.	UGP	Internal Presentation of B.E. Project
25th Mar.	F16	Gudhi Padwa
27th Mar.	SCM	Student Council Meeting
31st Mar.	UGS	B.E. Project Submission
2nd April	F17	Ram Navami
5th April	SC	Syllabus Completion
6th April	F18	Mahaveer Jayanti
7th Apr. to 12th Apr.	ISE-III/R	ISE- III (Result on 5th Day after last paper)
10th Apr	F19	Good Friday
12th to16th April	LT	Lab Test on 1st Practical session after ISE of the concerned subject

Date	Symbol	Events
14th Apr	FN9	Dr. Babasaheb Ambedkar Birth Anniversary & Annual Prize Distribution Ceremony
14th April	SV	SVERIAN Quarterly Issue Release Day
20th Apr	IO	Internal Oral and Term Work submission/ Displaying of Marks
21st April onwards	P.G.	Preparation and Guidance Sessions
1st May	F20	Maharashtra Din
2nd to 22nd May	UE	Tentative Period for University Examination
7th May	F21	Buddha Pournima
23rd May	F22	Ramjan Eid
25th to 29th May	R&D	STTP/Conference/Workshop/Seminar /National Conference/Dept.Workshop
1st June 30th June		In-Plant, Campus Recruitment,GATE Training
9th June	GSM	General Meeting of Staff
15th June	PD/ARS	Personality Development Presentatiom & Anti-Ragging Session

(Dr. B. P. Ronge)
Principal

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

In Semester Examination (ISE)
Question paper setting

SVERI's

College of Engineering, Pandharpur

Department of Mechanical Engineering

A. Y. 2019-20 SEM-II

ISE

- **Office Order**

Office order for paper setting

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , **NAAC**, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 27/01/2020

Office order

The following faculty members of our department are entrusted the duties for reviewing the In-Semester Exam (ISE) Question papers for the second semester of academic year 2019-20.

Sr. No.	Class	Subject	Name of Question Paper Setter	Name of Reviewer
1	B.E.-A	IE	/Ms. P. K. Patil	Mr. B. D. Gaikwad
2		IQM	Mr. S. M. Khomane	/Ms. V. G. Kalebag
3		NCM	Mr. P.A. Dhawale	Mr. D. T. Kashid
4		MM	Mr. A. A. Shinde	Mr. B. D. Gaikwad
5	B.E.-B	IE	Mr. B. D. Gaikwad	/Ms. P. K. Patil
6		IQM	/Ms. V. G. Kalebag	Mr. S. M. Khomane
7		NCM	Mr. D. T. Kashid	Mr. P.A. Dhawale
8		PE	Dr. A. A. Utpat	/Ms. V. G. Kalebag

HEAD,
Dept. of Mechanical Engg.
C.O.E. Pandharpur

Sr. No.	Class	Subject	Name of Question Paper Setter	Name of Reviewer
9	T.E.-A	HMT	Mr. S. S. Jadhav	Mr. V. R. Chavan
10		ICE	Mr. S. V. Jadhav	Mr. D. D. Ronge
11		CAD	Mr. C. C. Jadhav	Mr. C. K. Vhare
12		MD-II	Dr. S. S. Wangikar	Dr. S. A. Sonawane
13		ESA	Mr. A. K. Parakhe	Dr. S. S. Wangikar
14	T.E.-B	HMT	Mr. V. R. Chavan	Mr. S. S. Jadhav
15		ICE	Mr. D. D. Ronge	Mr. S. V. Jadhav
16		CAD	Mr. C. K. Vhare	Mr. C. C. Jadhav
17		MD-II	Dr. S. A. Sonawane	Dr. S. S. Wangikar
18		ESA	Mr. A. K. Parakhe	Dr. S. S. Wangikar
19	S.Y.B.Tech-A	M-III	Mr. S. D. Talekar	/Ms. H. M. Gove
20		MT	Mr. K. S. Pukale	Mr. B. D. Gaikwad
21		FM & FM	Mr. S. M. Kale	Mr. S. R. Gavali
22		KTOM	Dr. R. R. Gidde	Mr. S. Y. Salunkhe
23		PPE	Mr. Y. M. Khedkar	Mr. R. D. Solage
24	S.Y.B.Tech-B	M-III	Mr. S. D. Talekar	/Ms. H. M. Gove
25		MT	Mr. K. S. Pukale	Mr. B. D. Gaikwad
26		FM & FM	Mr. S. R. Gavali	Mr. S. M. Kale
27		KTOM	Mr. S. Y. Salunkhe	Dr. R. R. Gidde
28		PPE	Mr. R. D. Solage	Mr. Y. M. Khedkar

SAS
HEAD.
Dept. of Mechanical Engg
C.O.E. Pandharpur.

Procedure to Review Question Paper (QP)

1. Subject teacher has to prepare the QP as per the Bloom's Taxonomy & the guidelines given by NBA/AICTE reforms.
2. After preparing the QP subject teacher has to handover it to the allotted Reviewer as per previous table.
3. After receiving the QP from subject teacher, Reviewer should review it within time and should submit it back to the QP Setter with the QP & Reviewing Report.
4. If reviewer has recommended the QP, Subject teacher should take approval from head of department and has to submit QP along with reviewing report to ISE Coordinator.
5. If reviewer has not recommended the QP then reviewer should submit QP back to the paper setter along with reviewing report. Then afterwards paper setter has to implement the suggestions given by reviewer and has to prepare Revised QP and has to submit for further reviewing to the Reviewer till it get recommended. Afterwards subject teacher has to take approval from HOD and finally has to submit revised QP along with reviewing report to the ISE coordinator.
6. Also subject teacher has to send soft copy of approved QP to the ISE coordinator.

To make effective implementation of the question paper reviewing work following Committee is constituted for the smooth functioning.

Sr. No.	Name of Member	Designation
1	Prof. S. A. Sonawane	Chairman
2	Prof. S. M. Kale	Coordinator S.Y.B.Tech.-A
3	Prof. R. D. Solage	Coordinator S.Y.B.Tech-B
5	Prof. C. C. Jadhav	Coordinator T.E.-A
6	Prof. K.B. Jundale	Coordinator T.E.-B
7	Prof. A. A. Shinde	Coordinator B.E.-A
8	Prof. D. T. Kashid	Coordinator B.E.-B

All are requested to take note of same and act accordingly.

27/01/2020

(Prof. S. S. Jadhav)
ISE Co-ordinator Mech. Engg. Dept.

(Dr. S. A. Sonawane)
HOD Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

Reviewing of ISE Paper Case -I

SVERI'S College of Engineering, Pandharpur

S.E. (Mechanical) ISE-I Academic Year -2019-20

Fluid Mechanics & Fluid Machines

Div: -A

Day and Date: Sunday & 02/02/2020 **Marks - 20**

Time- 9:00 am to 10:30 am **Duration– 1 hr 30 min**

CO	CO STATEMENT	BLOOMS LEVEL	MAX. MARKS
CO 1	Explain total pressure, center of pressure on plane and curved surfaces encountered in dam structures, and metacentric height of floating & submerged body in a static fluid.	BL2	10
CO 2	Identify types of fluid flow and calculate velocity, acceleration, stream function and velocity potential at any point in the fluid flow.	BL3	10

Instructions - I) All questions are compulsory.
II) Assume suitable data if required.

Q. 1	**MCQ'S/objectives type questions.**	**Marks**	**Related CO & Blooms Level**	**PI**
1	The center of pressure and center of gravity are coincide when (a) vertical surface immersed in the liquid (b) horizontal surface immersed in the liquid (c) inclined surface immersed in the liquid (d) curved surface immersed in the liquid	1	CO-1 BL2	1.4.1
2	The pressure _____ as depth of the liquid increases. (a) decreases (c) increases (b) remains same (d) can't predicted	1		1.3.1
Q. 2	**MCQ'S/objectives type questions.**			
1	A streamline is a line (a) which is normal to the velocity vector at every point (b) which represents lines of constant velocity potential (c) which is normal to the lines of constant stream function (d) which is tangential to the velocity vector everywhere at a given instant.	1	CO-2 BL3	2.1.3
2	Continuity equation deals with the law of conservation of (a) energy (c) momentum (b) mass (d) all of the above	1		2.1.3
Q. 3	**Attempt any two from the following**			
a.	Explain the conditions of the equilibrium for Floating body with the help of neat sketch.	4	CO-1 BL 2	1.4.1
b.	Derive an expression for the depth of centre of pressure from free surface of liquid of a vertical plane surface submerged in a liquid.	4		1.4.1
c.	A circular plate 1.5 m diameter is immersed in water, its greatest and least depth below free surface being 2 m and 0.75 m respectively. Find 1) The total pressure on one face of the plate. 2) Position of centre of pressure.	4		1.4.1

Q. 4	Attempt any Two from the following			
a.	Develop an expression for continuity equation for three dimensional flow.	4	CO-2 BL 3	2.1.3
b.	What are different types of fluid flow? Explain with example.	4		2.1.3
c.	Explain in detail the Lagrangian and Eulerian description of motion. Which is useful to study?	4		2.1.3

.....ALL THE BEST.....

ISE Question Paper Reviewing Report

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
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Department of Mechanical Engineering
Question Paper Reviewing Report

Class: S.E **Div:** A **Test:** ISE - I **Academic Year: 2019-20**

Name of subject teacher:- Mr. S. M. Kale

Name of Reviewer:- Mr. S. R. Gavali

A]

Sr. No.	Recommended/Not Recommended	If not recommended comments of reviewer	Sign of Reviewer
01	Recommended	O/C	

B] HOD Remark: Ok

(Dr. S. A. Sonawane)
HOD Mech. Engg. Dept.

Reviewing of ISE Question Paper Case-II

SVERI'S College of Engineering, Pandharpur
TE (Mechanical) ISE-I Academic Year -2019-20
Experimental Stress Analysis
Div: - A & B

Day and Date: Thursday & 13/02/2020 **Marks - 20**
Time- 09.00 am - 10.30 am **Duration–1:30 Hours**

CO	CO STATEMENT	BLOOMS LEVEL	MAX. MARKS
ME 325.1	Apply the concepts of applied physics, analysis of mechanical elements and various ESA techniques for analysis of mechanical components.	BL 3	04
ME 325.2	Make use of Polariscope and its different arrangement to study the effect of stressed photo elastic model.	BL 3	16

correction in co

Instructions - I) All questions are compulsory.
II) Assume suitable data if required.

Q. 1	**MCQ'S/objectives type questions.**	**04 M**	**Related CO & Blooms Level**	**PI**
1.	Fringes seen through analyzer can be…….. a) Isoclinics b) Isochromatics c) Moire d) None	02	**CO 2 BL 3**	1.4.1
2.	Fractional order fringe is calculated in…… a) Circular polariscope dark field arrangement b) Tardy's method c) Circular polariscope light field arrangement d) None of a, b, c	01		
3.	Opticalty, polariser and analyser are…… a) Different b)Same c) Like quarter wave plate d) None of a, b, c	01		
Q. 2	**Solve the following Questions. (Any One)**	**04 M**	**CO 1 BL 3**	1.4.1
a)	Write a short note on Natural Birefringence and Artificial Birefringence.	04		
b)	Derive the Stress Optics Law.	04		
Q. 3	**Solve the following Questions. (Any Two)**	**12 M**	**CO 2 BL 3**	1.4.1
a)	Explain the Tardy's method with advantages. BL2	06		
b)	Derive the expression for the light intensity seen through analyzer when the stressed model is kept in the dark field circular polariscope. BL3	06		
c)	Differentiate between Plain and Circular Polariscope. BL2	06		

……..All the Best……

ISE Question Paper Reviewing Report

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
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(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , NAAC, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 10/02/2020

Department of Mechanical Engineering
Question Paper Reviewing Report

Class: T.E(Mech) **Div:** A & B **Test:** ISE-I **Academic Year: 2019-20**

Name of subject teacher:- Mr. A.K. Pathe

Name of Reviewer:- Dr. S.S. Wangikar.

A]

Sr. No.	Recommended/Not Recommended	If not recommended comments of reviewer	Sign of Reviewer
1.	Not recommended	Correction in CO	10-2-2020
2-	Recommended	—	11-2-2020

B] HOD Remark: O/C

(Dr. S. A. Sonawane)
Head, Mech. Engg. Dept.

Corrected Question Paper after Modification

SVERI'S College of Engineering, Pandharpur

TE (Mechanical) ISE-I Academic Year -2019-20

Experimental Stress Analysis

Div: - A & B

Day and Date: Thursday & 13/02/2020 **Marks - 20**

Time- 09.00 am - 10.30 am **Duration–1:30 Hours**

CO	CO STATEMENT	BLOOMS LEVEL	MAX. MARKS
ME 325.1	Apply the concepts of applied physics, analysis of mechanical elements and various ESA techniques for analysis of mechanical components.	BL 3	04
ME 325.2	Use the Polariscope and its different arrangement to study the effect of stressed photo elastic model.	BL 3	16

Instructions - I) All questions are compulsory.
II) Assume suitable data if required.

Q. 1	MCQ'S/objectives type questions.	04 M	Related CO & Blooms Level	PI
1.	Fringes seen through analyzer can be…… a) Isoclinics b) Isochromatics c) Moire d) None	02	CO 2 BL 3	1.4.1
2.	Fractional order fringe is calculated in…… a) Circular polariscope dark field arrangement b) Tardy's method c) Circular polariscope light field arrangement d) None of a, b, c	01		
3.	Opticalty, polariser and analyser are…… a) Different b)Same c) Like quarter wave plate d) None of a, b, c	01		
Q. 2	**Solve the following Questions. (Any One)**	**04 M**	CO 1 BL 3	1.4.1
a)	Write a short note on Natural Birefringence and Artificial Birefringence.	04		
b)	Derive the Stress Optics Law.	04		
Q. 3	**Solve the following Questions.**	**12 M**	CO 2 BL 3	1.4.1
a)	Explain the Tardy's method with advantages. OR Differentiate between Plain and Circular Polariscope.	04		
b)	Derive the expression for the light intensity seen through analyzer when the stressed model is kept in the dark field circular polariscope.	08		

……..All the Best……

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Conduction of In Semester Examination (ISE)

- Circular
- Notice
- Time Table
- Seating Arrangement
- Supervision Duty Sheet

Circular

Shri Vithal Education & Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B.No. 54, Gopalpur - Ranjani Road, Gopalpur, **Pandharpur** - 413 304, Dist. Solapur (Maharashtra) **Tel.:** 7755990201.
Toll Free No.:- 1800-3000-4131, **E-mail:** coe@sveri.ac.in, **Website:** www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
Accredited by The Indian Institution of Engineers (India), Kolkata and TCS, Pune. ISO 9001:2008 Certified Institute

Ref.:- COEPR/2017-18/ परि/67 (A) Date:- 03/01/2018

Circular

All the Students and Staff are hereby informed to note that the policy in respect of In Semester Examination (ISE) marks has been modified through the resolution in Students' Council meeting dated 12/10/2017. The modified policy is as given below:

1) If student passes in all the three ISEs of the Subject (Course) then the average of the best of two ISEs be considered for finalising ISE marks of that Subject (Course) for sending to University.
2) If student fails in one or more ISEs of Subject (Course) then the average of all the three ISEs is to be considered for finalising ISE marks of that subject for sending to University.
3) Student failing in or remaining absent for Subject(s)[(Course)(s)] in ISE(s) or willing to improve the performance in one or more Subject(s)[(Course)(s)] ,at his/her choice may opt for Re-ISE(s) ,within five days from the date of declaration of the concerned ISE result, once for each Subject (Course) by paying charges of Rs.300/- per Subject (Course) of ISE.
4) This policy be reflected in every notice of ISE henceforth.
5) This circular be part of Subject file under A2 as per Circular no.SVERI/2010-11/CIR/85 (A) dated 01/01/2011, alongwith other relevant circulars.

The policy shall come into force from Semester –II of the Academic Year 2017-18.

All the concerned should take note of the above and act accordingly.

B.P.Ronge

(Dr.B.P.Ronge)
PRINCIPAL

C.C.:

1) All Deans
2) All HODS : For effective circulation
3) All Subject (Course) Teachers
4) College Notice Boards
5) FTP
6) Office Copy
7) Office Copy
8) Hostel Notice Board

Shri Vithal Education & Res
Revised Circular
COLLEGE OF ENGINEERING, PANDHARPUR
P.B.No.54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413304, **District**: Solapur (Maharashtra)
Tel.: (02186) 216063, 9503103757, **Toll Free No.**: 1800-3000-4131 **e-mail.**: coe@sveri.ac.in
Website.: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
NBA Accredited all eligible UG Programmes, **NAAC** Accreditated Institute,ISO 9001:2015 Certified Institute.
Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune.

Ref.:- COEPR/2018-19/Cir/77(A) Date:- 25/01/2019

Revised Circular

All the Students and Staff are hereby informed to note that the policy in respect of In Semester Examination (ISE) has been revised through the resolution in Students' Council meeting dated 24/01/2019. The revised policy is as given below:

1) If student passes in all the three ISEs in a Subject (Course) then the average of the best of two ISEs be considered for finalising ISE mark of that subject (Course) for sending to University.
2) Student failing in or remaining absent for Subject(s) [(Course)s] in ISE(s) has to compulsory appear for Re-ISE(s),once for each Subject (course) by paying charges of Rs.100/- per Subject (Course) of ISE, as per the schedule decided by department.
3) Student clear pass in ISE, but willing to improve the performance in one or more Subject (s) [(Course)s] at his /her choice may opt for RE-ISE(s), once for each subject (Course) by paying charge of Rs. 100/- per subject (course) of ISE, as per the schedule decided by department.
4) If student fails in one or more ISEs of Subject (Course) then the average of all the three ISEs is to be considered for finalising ISE marks of that subject for sending to University.
5) This policy be reflected in every notice of ISE henceforth.
6) This circular be part of Subject file under A2 as per Circular no. SVERI/2010-11/CIR/85 (A) dated 01/01/2011, along with other relevant circulars.
7) The earlier circular in this respect No. COEPR/2017-18/Cir/67(A) dated 03/01/2018 stands cancelled.

The policy shall come into force from Sem-II of the Academic Year 2018-19.

All the concerned should take note of the above and act accordingly.

COLLEGE OF ENGINEERING PANDHARPUR

B.P.Ronge

(Dr. B. P. Ronge)
PRINCIPAL

C.C.

1) Campus Incharge
2) All Deans
3) All HODS : For effective circulation
4) All Subject (Course) Teachers
5) Hostel Notice Boards
6) College Notice Boards
7) FTP
8) Office Copy

ISE Conduction Notice

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , NAAC, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 27/01/2020

Department of Mechanical Engineering

Notice

All the students of S.Y.B.Tech. Mechanical are hereby informed to note that **ISE-I** of this semester will be scheduled from **Saturday, 1st Feb. 2020**. The detailed Schedule of ISE-I is displayed on Notice Board. During ISE there will be no any proctor/practice/backlog/IB Sessions. So take the note of same & act accordingly.

*IMP. NOTE: -

1. Don't remain absent for any ISE, Unit Test & Lab Test.
2. If student passes in all three ISEs of subject (course), then the average of best of two ISEs is considered for finalising ISE marks of that Subject (course) for sending to university.
3. If students fail in one or more ISEs of subject (course) then the average of all the three ISEs is to be considered for finalising ISE marks of that subject for sending to University.
4. Student failing in or remaining absent for subject(s) [course(s)] in ISE (s) has to appear for Re-ISE(s) compulsorily by paying charges of Rs. 100/- per Subject (course) of ISE.
5. Student failing in or remaining absent for subject(s) [course(s)] in ISE (s) or willing to improve the performance in one or more Subject(s) [(course) (s)], at his/her choice may pot for Re-ISE(s), within five days from the date of declaration of the concerned ISE results, once for each Subject (course) by paying charges of Rs. 100/- per Subject (course) of ISE.

27/1/01

(Prof. S. S. Jadhav)
ISE Co-ordinator
Mech. Engg. Dept.

SAS

(Dr. S. A. Sonawane)
H.O.D.
Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

ISE Time Table

SVERI's COE, Pandharpur
Mechanical Engineering Dept.
TIME TABLE
EXAMINATION: ISE-I
SEMESTER-II
A.Y. 2019-20

CLASS: S.Y.B.Tech. Mechanical **Division: A and B.**

Paper No.	Subject	Date	Time
1	M-III	01/02/2020	10:00 AM To 11:30AM
2	FM & FM	02/02/2020	10:00 AM To 11:30AM
3	KTOM	03/02/2020	10:00 AM To 11:30AM
4	MT	04/02/2020	10:00 AM To 11:30AM
5	PPE	06/02/2020	10:00 AM To 11:30AM

*IMP. NOTE: -

1. After ISE Classes will run regularly.
2. OBT will be conducted on the same day of the respective Subject.

(Prof. S.S. Jadhav)
ISE Co-ordinator
Mechanical Engineering Dept.

(Dr. S. A. Sonawane)
H. O. D.
Mechanical Engineering Dept.

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

Seating Arrangement for All Students

SVERI's College of Engineering, Pandharpur

Department of Mechanical Engineering

A.Y. 2019-20 SEM-II ISE-I

DAILY SUPERVISION DUTY **Date:-13-02-2020**

Sr. No.	Block	Class & Div.	Roll No.	Total	Name of Supervisor	Sign
1	517	TE A	TA 01-09,TA 10-39	39	B.D. Gaikwad	
		BE B	BB 01-07,BB 08-37	37	P.A. Dhawale	
2	518	TE A	TA 40 - 74	35	Y. R. Chavan	
		BE B	BB 38-72	35	D.T. Kashid	
3	519	TE B	TB 01-05, TB 06-35	35	C.C. Jadhav	
		BE A	BA 01-05, BA 06-35	35	S.N. More	
4	520	TE B	TB 36 - 64	29	C.K. Yhare	
		BE A, BE B	BA 36- 56=21, BB 75-81=07	28	V.G. Kalebag	

Prof. S. S. Jadhav)
ISE Co-ordinator

(Dr. S. A. Sonawane)
Head, Mech. Engg. Dept

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

Supervision Duty Notice

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
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Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Department of Mechanical Engineering

NOTICE

Date- 08/02/2020

Following faculty members are appointed as Jr. Supervisors for ISE-I. All are requested to take note & follow the same.

Sr. No.	Date	13/02/2020	14/02/2020	15/02/2020	16/02/2020	17/02/2020	Sign
	Name of Faculty	09 am To 10.30am	09 am To 10.30am	09 am To 10.30am	09 am To 10.30am	09 am To 10.30am	
1	Prof. A. K. Parakhe	√		√		√	
2	Prof. C. C. Jadhav		√			√	
3	Prof. S. V. Jadhav		√		√	√	
4	Prof. S. S. Wangikar			√	√		
5	Prof. S. N. More	√		√	√		
6	Prof. K. B. Jundale			√	√		
7	Prof. D. D. Ronge	√		√	√		
8	Prof. C. K. Vhare	√	√		√		
9	Prof. V. R. Chavan	√		√		√	
10	Prof . D. T. Kashid	√	√				
11	Prof. B. D. Gaikwad	√	√		√		
12	/Prof. V. G. Kalebag	√	√	√			
13	Prof. A. A. Shinde		√		√		
14	Prof. P. A. Dhavale	√	√	√			
15	Prof. S. M. Khomane	√		√	√		
16	/Prof. P. K. Patil	√	√			√	
17	Prof. S. B. Bhosale		√	√	√		

Note:

1) All supervisors are requested to report exam control room (i.e. CAD-CAM-III) before 20 minutes of examination time.

8/2/20

(Prof. S. S. Jadhav)
ISE Coordinator

SAS

(Dr. S. A. Sonawane)
Head
Mechanical Engg. Department

HEAD,

Internal Squad Notice

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
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NBA Accredited all Eligible UG Programmes and , **NAAC**, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

NOTICE **Date- 08/02/2020**

Following faculty members are appointed as an Internal Squad for ISE-I. All are requested to take note & follow the same.

Sr. No.	Date	13/02/2020	14/02/2020	15/02/2020	16/02/2020	17/02/2020	Sign
	Name of Faculty	09 am To 10.30am	09 am To 10.30am	09 am To 10.30am	09 am To 10.30am	09 am To 10.30am	
2	Dr. S. A. Sonawane	√	√	√	√	√	
3	Dr. A. A. Utpat	√	√	√	√	√	
4	Dr. R. R. Gidde	√	√	√	√	√	
5	Prof. S. R. Gavali	√	√	√	√	√	

8/2/2020

(Prof. S. S. Jadhav)
ISE Coordinator

(Dr. S. A. Sonawane)
Head
Mechanical Engg. Department

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Assessment of In Semester Examination (ISE)

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

In Semester Examination (ISE)

- Marking Scheme of Assessment
- Answer Sheet
- Circular for Timely Assessment
- Result

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

In Semester Examination (ISE)

- **Marking Scheme of Assessment**

SVERI'S College of Engineering, Pandharpur

S.Y.B.Tech (Mechanical) ISE-I Academic Year -2019-20

ICE

Div: - A&B

Day and Date: Tuesday & 13/08/2019 **Marks - 20**

Time-10:00am to 11:30am **Duration–1 Hr**

CO	CO STATEMENT	BLOOMS LEVEL	MAX. MARKS
ME215.1	Distinguish between the different types of engine constructions and their thermodynamic principles.	02	10
ME215.2	Differentiate the working principles and constructional details of various fuel systems used in different types of I. C. Engines.	03	10

Instructions - I) All questions are compulsory.
II) Assume suitable data if required.

Q. 1	MCQ'S/objectives type questions.	Marks 1x2=02	Related CO & Blooms Level	PI
1.	Dual Cycle is a combination of a)Otto cycle and Diesel cycle b)Otto cycle and Stirling cycle c)Brayton cycle and steam cycle d) None of the mentioned	01	ME215.1 BL-2	1.4.1
2.	Venturi throat in the carburetor results in a) decrease of air velocity b) increase of air velocity c) decrease of fuel flow d) increase of manifold	01	ME215.1 BL-2	1.3.1
Q. 2	**MCQ'S/objectives type questions.**	**1x2=02**		
1.	The choke is closed when engine is a) accelerating b) hot c) cold d) idling	01	ME215.2 BL-3	1.3.1
2.	A simple carburetor supplies lean mixture during a) starting b) idling c) cruising d) accelerating	01	ME215.2 BL-3	1.4.1
Q.3	**Attempt the following Questions.(Any two)**	**4x2=08**		
1.	What is an I.C. engine? How these engines are classified?	04	ME215.1 BL-2	1.4.1
2.	Discuss the following losses which occur in an actual engine 1) Pumping losses 2) friction losses 3) Exhaust losses 4) Time losses	04	ME215.1 BL-2	1.3.1
3	Explain Otto and Diesel cycle.	04	ME215.1 BL-2	1.3.1
Q.4	**Attempt the following Questions.(Any two)**	**4x2=08**		
1.	What are the limitations of simple carburetor? List the compensating devices used in carburetor and explain any one type with a neat sketch.	04	ME215.2 BL-3	1.4.1
2.	Write short note on Electronic petrol injection system.	04	ME215.2 BL-3	1.4.1
3.	The venturi of a simple carburetor has a throat diameter of 20 mm and its Cd is 0.8. The fuel orifice has a diameter is 1.14 mm and Cdf is 0.65. The gasoline surface is 5 mm below the throat and pressure drop of 0.08 bar, Find 1) Air fuel ratio when nozzle tip is neglected. 2) Air fuel ratio when nozzle tip is taken into account. Take $\rho a = 1.2$ kg/m3, $\rho f = 750$ kg/m3.	04	ME215.2 BL-3	1.4.1

.....All the Best.....

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

In Semester Examination (ISE)

Answer Sheet

Shri Vithal Education & Research Institute's

COLLEGE OF ENGINEERING, PANDHARPUR

ISE / Unit Test No.: ISE - 1 Date.: 17-8-19

Name of Student.: Bansode Aniket Annasaheb

Class.: S.Y. B.Tech Division.: B

Roll No.: 10 Subject.: ICE

Sign of Supervisor.: 17/8/19 Marks.: 18/20

CO:	BL	PI Code	Q.No.	a	b	c	d	e	f	Total
1	2	1.4.1	1	1	1					2
2	3	1.3.1	2	1	1					2
1	2	1.4.1	3	1/2	1/2					6
2	3	1.3.1	4	1/2	1/2					8
			5							
			6							
			7							
			8							
									Grand Total	18/20

Q1.

1) (a) ✓

2) (b) ✓

Q2

1) (c) cold ✓

2) (c) ✓

1) I.C. Engine:

It is a device or a system which converts the heat energy in the electrical energy & electrical energy into the work.

The I.C. engine is classified as.

1) According to No. of stroke
   a) 4- stroke
   b) 2- stroke

2) According to fuel used
   a) Petrol engine
   b) diesel engine.

3) According to the cooling system
   a) Air cooling system
   b) water cooling system.

4) According to cycle
   a) Otto cycle
   b) Diesel cycle.

5) According to type of arrangment.
   a) V-type
   b) Radial type.

6) Application
   a) Automotive
   b) stationary

7) According to engine design
   a) Rotary
   b) Reciprocating

(8) According to mixture system
   (a) Carburator
   (b) Fuel injector.

(9) According to ignition
   (a) Magnetic ignition
   (b) Battery ignition

2)

1) Pumping loss:
In the actual cycle the pumping of the fuel takes place at the suction stroke. The pumping of ~~loss~~ fuel in the air standared cycle it takes place before the suction stroke. i.e when piston is till to reach the TDC & it comple after the BDC by 10°.
Therefore due to the air standard cycle the difference in the actual cycle & air cycle takes place & the pumping loss takes place.

Therefore during the pumping loss the angle or deviation takes place it $10^0 + 45^0 + 180 = 235^0$.

2) Friction losses:

In the actual cycle due to the high percentage of the piston moving from TDC to BDC. The friction loss takes place. In the air standard cycle the position or the piston arrangement is differ than the actual cycle. so due to this the friction loss is takes place in the actual cycle.

3) Exhaust losses:

In the air standard cycle the exhaust stroke takes place before the BDC & it completed after the some degree of TDC. so * in the air standard cycle the exhaust loss takes place & in the actual cycle the exhaust stroke takes place at the BDC & it will complete on the TDC. so the distance or angle covered by the exhaust stroke in the air standard cycle is $10^0 + 45^0 + 180^0 = 235^0$.

4) Time loss:

Q4.

2) Electronic petrol injection system.

The electronic gasolene injection system consist the electronic sensor, computer & solenoid injected inject the right amount of the fuel to the engine. This is called as the electronic injection system. & It uses electrical & electronic devices to regulate & control the electronic operation.

The electronic control unit (ECU) transfer the electric energy in the form of volts & charge. The Electronic control unit regulate & control all the electrical operation in the injection system.

The sensor used the electronic petrol injection system are.

① Engine temperature sensor:
It sense the temperature of the engine

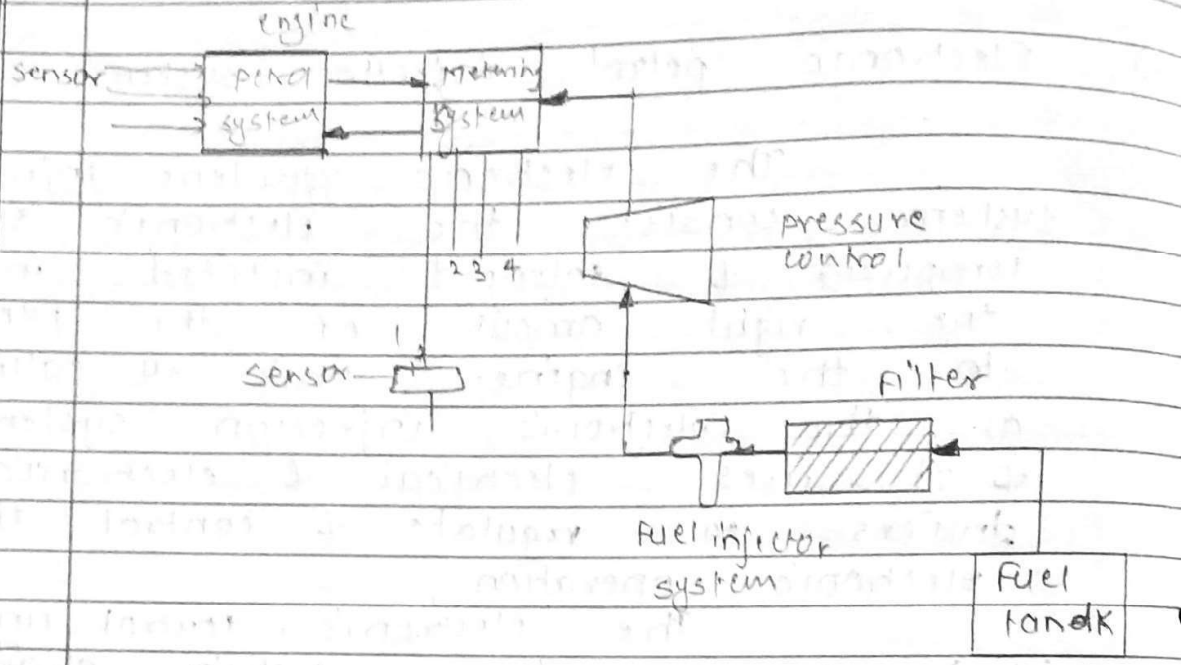
② Air flow sensor:
It sense the mass or the volume of the air.

③ Air inlet temperature sensor:
It sense the the thempera ture of air at inlet.

④ Throttle pressure sensor:
It sense the pressure of the air or fuel at throat.

⑤ manifold volume sensor: It sence the the volume of fuel at manifold.

⑥ Exhaust gas sensor:
It sense the pressure or mass of the gas at exhaust



The metering regulator meters the amount of

Advantages of the Electronic petrol injection system:

1) Improvement in the volumetric efficiency
2) starting & acceleration is better than simple carburator engine.
3) No exhaust pollution
4) The air fuel ratio is same at various stages i.e turning, moving.

Disadvantages:

1) high maintaince cost.
2) Difficult in servicing.

3).

→ Given

$d_2 = 20mm = 0.2\,m$

$C_{da} = 0.8$

$d_f = 11.84mm = 0.00144$

$C_{df} = 0.65$

$z = 5mm = 5\times10^{-3}\,m$

$\Delta P_a = 0.08\,bar = 0.08\times10^{3}\,N/m$

case (1).

When nozzle Hp is neglected.

$z = 0$.

$$\frac{m'_a}{m'_f} = \frac{C_{da}}{C_{df}} \times \frac{A_a}{A_f} \times \sqrt{\frac{S_a}{S_f}}$$

$$= \frac{0.8}{0.65} \times \frac{\pi/4\,(0.2^2)}{\pi/4\,(0.00144^2)} \times \sqrt{\frac{1.2}{750}}$$

$$\boxed{\frac{m'_a}{m'_f} = 15.15}$$

(ii) when nozzle Hp is considered

$z = 5\times10^{-3}$

$$\frac{m'_a}{m'_f} = \frac{C_{da}}{C_{df}} \times \frac{A_a}{A_f} \times \sqrt{\frac{S_a}{S_f}} \times \sqrt{\frac{\Delta P_a}{\Delta P_a - z.g\times S_f}}$$

$$\frac{m'_a}{m'_f} = \frac{0.8}{0.65} \times \frac{\pi/4\,(0.2^2)}{\pi/4\,(0.00114^2)} \times \sqrt{\frac{1.2}{750}} \times \sqrt{\frac{0.08}{0.08 * - 5\times10^{-3}\times g.s \times 750}}$$

$$\boxed{\frac{m'_a}{m'_f} = 15.18}$$

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

In Semester Examination (ISE)

- **Circular for Timely Assessment**

SVERI

प्रा.चंद्रकांत व्हरे <ckvhare@coe.sveri.ac.in>

Fwd: Notice-S.Y.B.Tech.-Regarding Submission of Result Analysis of ISE-I.

2 messages

Shashikant Jadhav <ssjadhav@coe.sveri.ac.in> Fri, Jan 28, 2022 at 5:06 PM
To: "प्रा.चंद्रकांत व्हरे" <ckvhare@coe.sveri.ac.in>

---------- Forwarded message ---------
From: **Shashikant Jadhav** <ssjadhav@coe.sveri.ac.in>
Date: Fri, Jan 28, 2022 at 4:57 PM
Subject: Fwd: Notice-S.Y.B.Tech.-Regarding Submission of Result Analysis of ISE-I.
To: Dipti Tamboli <datamboli@coe.sveri.ac.in>

---------- Forwarded message ---------
From: **Shashikant Jadhav** <ssjadhav@coe.sveri.ac.in>
Date: Fri, Feb 7, 2020 at 11:28 AM
Subject: Notice-S.Y.B.Tech.-Regarding Submission of Result Analysis of ISE-I.
To: MR. RAMDAS D SOLAGE <rdsolage@coe.sveri.ac.in>, Mr. Sachin Kale <smkale@coe.sveri.ac.in>, Mr. Sachin Gavali <srgavali@coe.sveri.ac.in>, Mr. Khedkar Yashapal Marutirao <ymkhedkar@coe.sveri.ac.in>, MR. KULDIP SURESH PUKALE <kspukale@coe.sveri.ac.in>, <sdtalekar@coe.sveri.ac.in>, <harshadagove@gmail.com>, MR. SALUNKHE SANDIPRAJ YSHWANTRAO <sysalunkhe@coe.sveri.ac.in>, Mr. Ranjitsinha Gidde <rrgidde@coe.sveri.ac.in>, Mr. SHASHIKANT SUBHASH. JADHAV <ssjadhav@coe.sveri.ac.in>, Sachin Sonawane <sasonawane@coe.sveri.ac.in>

All the subject teachers of S.Y.B.Tech Mechanical are instructed to submit your respective subject ISE-I Result Analysis (Soft As well as Hard copy) on or before 08/02/2020 without fail.

Send soft copy on: dddubal@coe.sveri.ac.in
ssjadhav@coe.sveri.ac.in

--
(Prof. S. S. Jadhav)
Assistant Professor
Mechanical Engineering Department
SVERI's College of Engineering, Pandharpur
Mob. No.8055836682

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

In Semester Examination (ISE)

Result

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT

ACADEMIC YEAR: 2019-20 **SEM- II** **ISE-I: MARK LIST**
CLASS: S.Y.B.Tech B **SUBJECT: ICE**

Roll. No.	Marks (20)	% Attendance	Roll. No.	Marks (20)	% Attendance
01	18	100.0	28	14	90.6
02	12	93.8	29	14	84.4
03	19	100.0	30	19	100.0
04	15	100.0	31	19	96.9
05	19	100.0	32	17	87.5
06	19	96.9	33	19	84.4
07	20	100.0	34	17	87.5
08	20	100.0	35	17	93.8
09	13	100.0	36	15	93.8
10	18	84.4	37	20	90.6
11	12	93.8	38	12	50.0
12	18	96.9	39	17	62.5
13	18	100.0	40	AB	75.0
14	14	93.8	41	19	100.0
15	13	56.3	42	18	96.9
16	16	100.0	43	16	90.6
17	17	90.6	44	18	65.6
18	14	81.3	45	20	90.6
19	15	90.6	46	17	100.0
20	15	96.9	47	18	100.0
21	20	100.0	48	15	87.5
22	18	96.9	49	17	100.0
23	11	96.9	50	20	100.0
24	15	84.4	51	18	75.0
25	18	90.6	52	12	84.4
26	16	100.0	53	13	40.6
27	13	75.0			

(Prof. S. S. Jadhav)
Subject Teacher

(Dr. S. A. Sonawane)
Head of Dept.

HEAD,
Dept. of Mechanical Engg
S.V.C.E. Pandharpur.

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT

ACADEMIC YEAR: 2019-20 **SEM- II** **ISE-I: MARK LIST**

CLASS: S.Y.B.Tech B **SUBJECT: ICE**

Sr. No.	Particulars	Total No.
01	Strength of Class	53
02	No. of students **Appeared** for Examination	52
03	No. of students **Absent** for Examination	01
04	No. of students **Failed** in Examination	00
05	No. of students **Passed** in Examination	52
06	No. of students **Scoring 60% & above (Marks 12-20)**	51
07	No. of students **Scoring 80% & above (Marks 16-20)**	33
08	**% Result** of the Subject	100 %
09	**Slow Learner**	NIL

(Prof. S. S. Jadhav)
Subject Teacher

(Dr. S. A. Sonawane)
HOD
HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Open Book Test (OBT)

1. Question Paper
2. Answer sheet
3. Result

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Open Book Test (OBT)

Question Paper

SVERI'S College of Engineering, Pandharpur

T.E. (Mechanical) Academic Year -2019-20

S.E. Mechanical **Sem-I Div. A& B** **Sub: Internal Combustion Engine** **Date: 18/08/19**

OBT -I

CO	CO STATEMENT	BLOOMS LEVEL	MAX. MARKS
ME322.1	Distinguish between the different types of engine constructions and their thermodynamic principles.	2	10
ME322.2	Differentiate the working principles and constructional details of various fuel systems used in different types of I. C. Engines.	3	10

Instructions - I) All questions are compulsory.
II) Assume suitable data if required.

Q.1	Questions	Marks	Related CO & Blooms Level	PI
A	Compare Otto cycle and Diesel cycle for I) same compression ratio and same heat input. II) same maximum pressure and same heat input.	05	01 BL2	1.3.1
B	Explain the following terms I) Mean effective pressure II) Volume efficiency III) Compression ratio	05	01 BL2	1.4.1
Q.2	**Questions**	**10**		
A	Explain why simple carburetor cannot meet the various engine requirements.	05	02 BL3	1.4.1
B	What do you understand by altitude compensation? Explain briefly.	05	02 BL3	1.4.1

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Open Book Test (OBT)

Answer sheet

Sample Answer Sheet

Shri Vithal Education & Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR

ISE / Unit Test No.: OBT-01 Date.:

Name of Student.: Suraj Rajendra Gavali

Class.: S.Y. BTech Division.: B

Roll No.: SB18 Subject.: I.C. engine

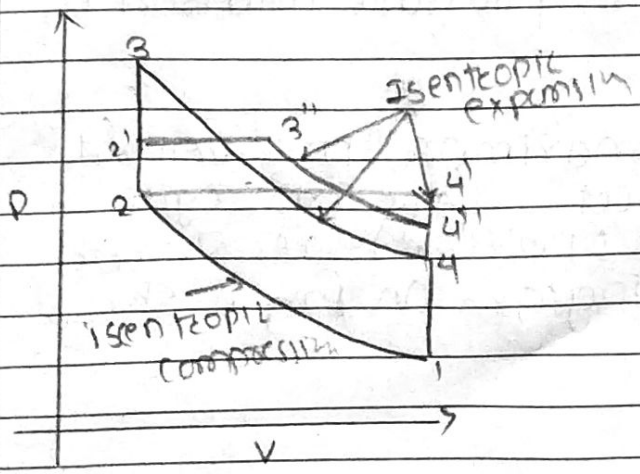
Sign of Supervisor.: Marks.: 17/20

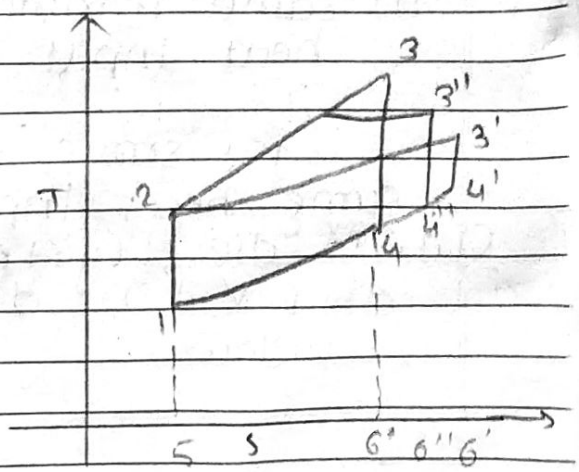
CO:	BL	PI Code	Q.No.	a	b	c	d	e	f	Total
1	2	1.4.1	1	5	4					9
2	3	1.3.1	2	4	4					8
			3							
			4							
			5							
			6							
			7							
			8							
									Grand Total	17/20

1) Comparisation of otto cycle & diesel cycle for

① same compression ratio & same heat input

a) otto cycle





The otto cycle 1-2-3-4-1 the diesel cycle 1-2-3'-4'-1 for same compression ratio and heat input

From the T-S diagram,

It can be seen that Area 5236 = Area 5 2 3' 6 represent the heat input is same for all cycle

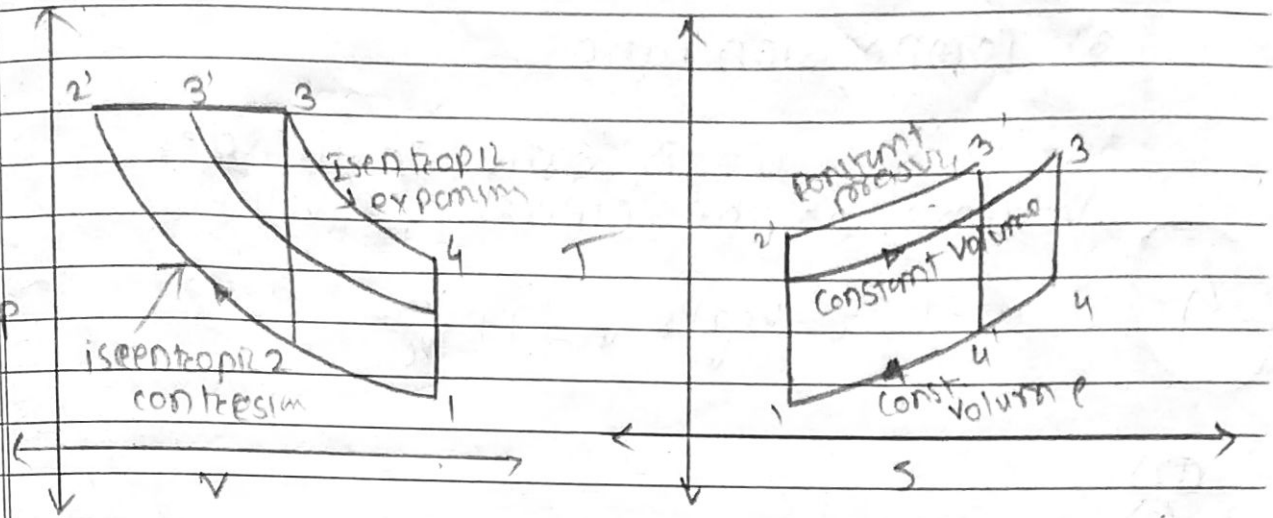
All the cycle starts from same initial state point 1 the air compress from state 1 to 2 (compression ration is same. T-S diagram from the same input the heat ~~of~~ rejection in otto cycle is minimum & heat rejection in diesel cycle 1 2 4 6 is maximum. Consequentity otto cycle has heighest work output & efficiency

$\eta_{otto} > \eta_{diesel}$

for same compression ratio otto cycle allows the working medium to expand more and diesel cycle is least in this respect. This is because before expansion in case of former (otto cycle) + last portion of heat supplied to find fluid has a relatively short expansion in case of diesel cycle

ii) Same maximum pressure and same heat input.

For same maximum pressure and same heat input the otto cycle (1,2,3,4) & diesel cycle (1,2',3',4') are shown on p-V & T-S diagram in fig. shown below



Heat rejection for otto cycle is more than heat rejection in diesel cycle so diesel cycle is more efficient than otto cycle for condition of same max^m pressure and heat input Diesel cycle has higher compression ratio V_1/V_2 than Otto cycle V_1/V_2

$$\eta_{otto} > \eta_{diesel}$$

B) 1) Mean effective pressure :-

mean effective pressure is the average pressure inside the cylinder on internal combustion engine based on the calculated or measured power output

$$P_{im} = \frac{\text{Area of indicator diagram}}{\text{length of the indicator diagram}}$$

2) volumetric efficiency :-

It is defined as the ratio of actual volume flow rate air into the system to the rate at which the volume is displaced by the system

$$\eta_v = \frac{Ma/\rho_a}{Vdt\ N/2}$$

3) Compression Ratio :-

It is ratio of cylinder volume to the clearance volume.

$$\varepsilon = \frac{V_c + V_s}{V_c} \quad \text{or} \quad = 1 + \frac{V_s}{V_c}$$

Q2)

(A)

① During idling throttle valve is almost closed resulting in very low air-flow rate. The pressure difference bet^n float chamber and venturi is also very low resulting in less fuel coming out of nozzle jet. This problem is corrected by using the separate idling system

② The simple carburetor is unable to provide a rich mixture during starting and warming up.

③ Theoretically a Air-fuel ratio supplied by a simple carburetor should remain constant for all throttle opening but in actual it provides increasing by riched mixture as the throttle open more & more

Due to above problem, simple carburetor can't meet the various engine requirement.

b) Conventionally, the float type of carburetor meter the air and fuel by volume and not by weight which is the basis for calculation the air-fuel ratio. The wt. of one cubic meter (m^3) of air decrease of altitude increase most automobile carbure-tor are calibrated of altitude near sea level & similarly production carburetors are calibrated at altitudes near sea level & similarly production carburetors are flow tested and ajust in a controlled environ-ents. When the atmospheric condition are different from those at which the carbureted was calibrated, density of air changes.

If vehicle is deiven at an altitude lower than calibrated altitude a rich mix. is obtained which result in poor driveability. At altitude heighes than calibrated altitude a rich mix. is supplied which cause increase in emission

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Open Book Test (OBT)

Result

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT

ACADEMIC YEAR: 2019-20 **SEM- I** **OBT-I: MARK LIST**

CLASS: SY BTech-B **SUBJECT: ICE**

Roll. No.	Marks (20)	Roll. No.	Marks (20)	Roll. No.	Marks (20)
01	20	**21**	18	**41**	18
02	18	**22**	17	**42**	18
03	15	**23**	18	**43**	15
04	17	**24**	18	**44**	19
05	18	**25**	17	**45**	16
06	18	**26**	18	**46**	19
07	18	**27**	19	**47**	19
08	18	**28**	15	**48**	19
09	17	**29**	18	**49**	16
10	18	**30**	18	**50**	18
11	19	**31**	18	**51**	18
12	15	**32**	15	**52**	17
13	18	**33**	18	**53**	19
14	14	**34**	18		
15	17	**35**	16		
16	17	**36**	17		
17	18	**37**	17		
18	17	**38**	18		
19	13	**39**	18		
20	19	**40**	15		

Sr. No.	Particulars	Total No.
01	Strength of Class	**53**
02	No. of students **Appeared** for Examination	**53**
03	No. of students **Absent** for Examination	**00**
04	No. of students **Failed** in Examination	**00**
05	No. of students **Passed** in Examination	**53**
06	**% Result** of the Subject	**100**

(Prof. S. S. Jadhav)
Subject Teacher

(Dr. S. A. Sonawane)
Head, Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
S.O.E. Pandharpur.

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Take Home Test (THT)

1. Question Paper
2. Answer sheet
3. Result

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Take Home Test (THT)

Question Paper

SVERI'S College of Engineering, Pandharpur

S.E. (Mechanical) Academic Year -2019-20

S.E. Mechanical Sem-I Div. A& B Sub: Internal Combustion Engine Date: 17/08/19

THT -I

CO	CO STATEMENT	BLOOMS LEVEL	MAX. MARKS
ME322.1	Distinguish between the different types of engine constructions and their thermodynamic principles.	2	10
ME322.2	Differentiate the working principles and constructional details of various fuel systems used in different types of I. C. Engines.	3	10

Instructions - I) All questions are compulsory.
II) Assume suitable data if required.

Q.	Questions	Marks	Related CO & Blooms Level	PI
01	Investigate Why two stroke engines not used in commercial automotive application now a days?	10	01 BL2	1.3.1
02	Examine the essential features of a good commercial carburetor for automotive application with sketch.	10	02 BL3	1.2.1

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Take Home Test (THT)

Answer sheet

Sample Answer Sheet

Shri Vithal Education & Research Institute's

COLLEGE OF ENGINEERING, PANDHARPUR

ISE / Unit Test No.: THT- 1 Date.: 22/8/2019

Name of Student.: Pawar Omkar Santosh

Class.: S.Y.B.Tech Division.: B

Roll No.: SB-37 Subject.: ICEngine.

Sign of Supervisor.: ✓ Marks.: 16/20

CO:	BL	PI Code	Q.No.	a	b	c	d	e	f	Total
1	2	1.4.1	1	8						8
2	3	1.3.1	2	8						8
			3							
			4							
			5							
			6							
			7							
			8							
									Grand Total	16/20

Q 1 →

The two stroke engine have two important advantages over four stroke engine. They are simpler and lighter and it is produced about twice as much power still we are using four stroke engine in the automobiles because of following reasons

1) Two stroke engine don't last nearly as long as four stroke engine. The lack of dedicated lubrication system means that the parts of a two stroke engine weared a lot of faster

2 Two stroke oil is expensive and you need about 4 per gallon of gas. We would burn about a gallon of oil is every 1000 miles if you used as a two stroke engine in far.

3. Two stroke engines produces a lot of pollution so much longer. They are main pillution comes from two sources The first is the combustion of the oil The oil makes all two stroke engines smokaly to some extext and badly worm two stroke engine can emit huge clouds of oily smoke. The second reason is less obvious but can be seen in the following figure.

4. Two stroke engines do not use fuel that efficienty. so you would get fewer the miles per gallon.

5. Each time a new charge of air fuel is loaded into the combustion chamber, part of it takes out through the exhaust part. That's why we see a sheen oil around any two stroke boat motor. The teaking of hydro carbons from the fresh, fuel combined with the leaking oil is a real mess for a the environment.

6. The disadvantages means that the two stroke engines are used only in application where the motor is not used very often to fantastic power of ratio is important.

Different methods for improvement of two stroke engine.

1. Improving the performance of two-stroke motorcycle with turned adjustable exhaust pipe. The test procedure involves the medsurement of the flywheel and clearation gave measure of the torque and power characteristics. The turned exhaust system was found to improve fuel economy of the engine

2. By Scavenging methods:
The process of simultaneously purging exhaust gas and filing the cylinder with fresh charge for a new cycle is reffered to as scavenging loop scavenging & uniform scavenging.

(8) 3. A method for operating a two-stroke gasoline engine equipped with a catalytic oxidizer to simultaneously reduce both HC & CO while maintaining, catalytic efficiency over long periods of operation comprising.

4. Increasing the BMP PC Brake mean effective pressures.
The increase in BMEP can be achieved by reducing the clearance volume. Since $PV^n = C$. As the volume decrease the pressure increase proportionately.

1→ The details of various device for the carburators to satisfy the demand of automobile engine under different condition been have discussed in previous.

i) Solex
ii) Carter
iii) S.V. carburator.

i. Ease of starting the engine, particularly under low ambient conditions.
ii. Ability to give full power quickly after starting the engine.
iii. Equally good & smooth engine operation at various loads.
iv. Good and quick acceleration of the engine.
v. Developing sufficient power at high engine speed.
vi. Simple and compact in construction.
vii. Good fuel economy.
viii. Absence of racing of the engine under idling condition.

The operation of a S.I engine depends primarily on the quality of the air-fuel mixture delivered to the engine cylinder. A good carburator must produce the desired air-fuel mixture ratio & supply the mixture to the engine at all speeds & loads & must do the same automatically.

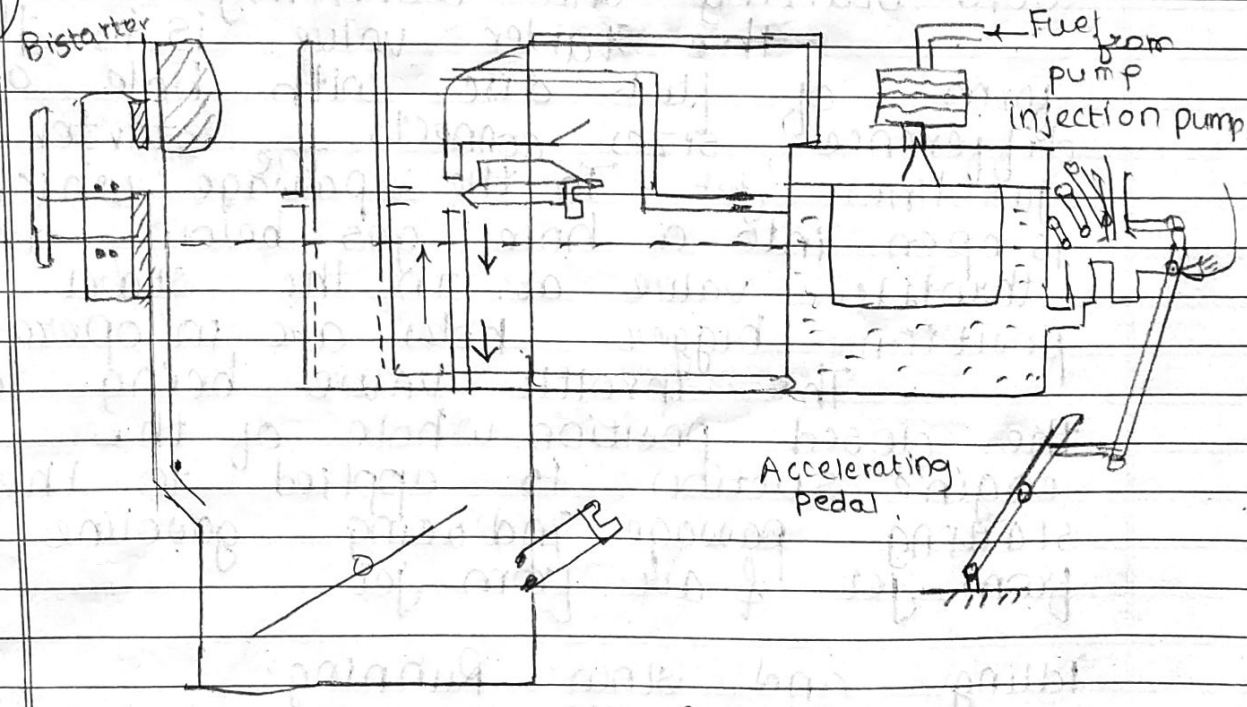
Solex Carburator:

The solex carburetor is famous for its use of starting, good performance and reliability. It is made in various models & is used in many automobile engines. The solex carburator as shown.

In figure is a down draught carburetor.

It consists of various fuel circuits such as starting idling or speed operation normal running acderation etc.

8



Solex Carburator

Normal running.

A float with a tapered needle value at the top face of the float is fixed in the main metering jet goes supplies fuel & air comes through the venturi. The fuel from main jet is goes into the wall of air bleed jet emusion system emulsion has lateral holes shown in fig. Air entering through it the material emulsion of fuel & air is supplied through the springing orifice the nozzle.

Cold starting and worming:

The starter value is in the form of flut disc with hole of difference sizes connects the starter gasolines jet. To the passage which is open into a hole gas below the throttle value at. In the start position bigger holes are in operation

The throttle vawe being in the closed position whole of the engine suction is applied to the starting passage ind ucing gasoline from jet & air from jet

Idling and slow Running.

From the well of emulsion system a hole loads to the pilot jet fuel is induced from there and mixed with little quantity of air coming from the small pilot air-bleed orifice.

The idle running adjustment ~~scr~~ is does by the idle adjustment screw the ideling spaced can be thus varied and jet too desired valve

The offset the reduction of suction at idle adjustment.

Acceleration:

In order to convert flat space during acceleration a diaphragm type acceleration pump is incarporated. This pump supplies extra fuel needed for acceleration through pump injector. pump. is connected to accelerator.

Shri Vithal Education & Research Institute's

College of Engineering, Pandharpur

Take Home Test (THT)

Result

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT

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05	18	**25**	18	**45**	12
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10	18	**30**	12	**50**	15
11	15	**31**	12	**51**	14
12	16	**32**	16	**52**	12
13	18	**33**	15	**53**	15
14	20	**34**	14		
15	12	**35**	12		
16	18	**36**	15		
17	14	**37**	16		
18	18	**38**	18		
19	16	**39**	14		
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05	No. of students **Passed** in Examination	**53**
06	**% Result** of the Subject	**100**

Kant
(Prof. S. S. Jadhav)
Subject Teacher

SAS
(Dr. S. A. Sonawane)
Head, Mech. Engg. Dept.

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Internal Continuous Assessment (ICA) Circular

Shri Vithal Education & Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR
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Toll Free No.:- 1800-3000-4131, E-mail: coe@sveri.ac.in, Website: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
Accredited by The Indian Institution of Engineers (India), Kolkata and TCS, Pune. ISO 9001:2008 Certified Institute

Ref.:- COEPR/2017-18/6610

Date:- 03/01/2018

Circular

All the staff and students are hereby informed to note that the modified policy for giving Internal Continuous Assessment (ICA) (term work) marks is as per the details given bellow:

PART-I: Continuous Evaluation

Sr. No.	Particular	Split of Marks out of 25	
		For subjects with practice Session	For subjects without practice Session
A.	**Subjects with only Assignments / Tutorials**		
		A1	**A2**
1.	Assignment / Tutorial (Timely submission and presentation of write up)	08	10
2.	Attendance in Practice Session	04	00
3.	Unit Tests (03 tests X 02 Marks)	06	06
4.	PPPE write up	05	07
5.	Oral	02	02
	Total	**25**	**25**
B.	**Subjects with Lab Practical and Assignments / Tutorials**		
		B1	**B2**
1.	Assignment / Tutorial (Timely submission and presentation of write up)	03	04
2.	Lab Book (Timely submission and presentation of write up)	05	06
3.	Attendance in Practice Session	03	00
4.	Unit Tests (03 tests X 02 Marks)	06	06
5.	PPPE write up	04	04
6.	Oral	02	02
7.	Lab Tests	02	03
	Total	**25**	**25**
C.	**Subjects with only Lab Practicals without Theory Paper**		
		C1	**C2**
1.	Lab Book (Timely submission and presentation of write up)	06	06
2.	Timely completion of Practical	05	05
3.	PPPE write up	02*	02*
4.	Oral	05	05
5.	Lab Tests	07	07
	Total	**25**	**25**

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Note: *For the subjects with no theory lectures, these one mark should be added to "Timely Completion of Practical and Performance" and "Lab Book (Timely submission and presentation of write up)" making corresponding marks as '06', '06' and '07', '07', respectively.

Part-II: Attendance and Professional Behavior

A. Effect of Attendance on ICA (Term Work) Marks

Sr. No.	Percentage Attendance	Variation in the Final Marks
1	100	+3
2	95-99	+1
3	90-94	No Effect i.e. 0
4	85-89	-2
5	80-84	-3

B. Total marks obtained by a student will be further smoothened /modified based on general behavior and participation of the student. The authority to smoothen/modify the marks based on this point shall be with HoD. However, exceptional cases be taken to Principal through Dean Students.

Note:

1. The detailed procedure for continuous evaluation and allocating marks with respect to each of the tools as per the type of subject is given in **Annexure-I.**
2. The above policy is for subjects having ICA (Term Work) marks out of 25. For the subjects having ICA marks other than 25, proportional conversion of the ICA (Term Work) marks be done.
3. Soft copy of the excel Sheets as per the type of subjects will be loaded on the FTP for assisting students to verify the correctness in their Term Work marks.
4. The earlier circular on 5+2 point formula dated 20/10/2014 with ref no. COEPR/2014-15/CIR/33 stands cancelled w.e.f 01/01/2018.
5. All the subject teachers have to update their files with this Circular in place of the previous circular dated 20/10/2014.

All the concerned should take the note of the above and act accordingly.

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(Dr. B. P. Ronge)
PRINCIPAL

Annexure-I: Progressive Assessment Guidelines

I]Progressive Assessment ofLab Books, Assignments or tutorials should be assessed out of 25 Marks for each Lab Practical/Assignment/Tutorial

1. **Lab Book** shall be assessed as given below:

Attendance	Performance in Lab	Submission	Presentation	Oral	Total
Out of 5 Marks	Out of 5 Marks	Out of 5 Marks	Out of 5 Marks	Out of 5 Marks	Out of 25 Marks

Attendance: If the student is present for practical session should be given 5 marks, if he/she performs same practical in next session allot him/her 4 marks and reduce 1 mark for each subsequent session. Minimum 1 mark should be given if he/she performs practical during the semester.

Performance in Lab: Teacher should observe the performance of individual student e.g. Initiative, Reading taking, etc. It is expected to observe the student how he/she performs at the time of practical session. Faculty members should ensure that every student take initiative and perform the practical and in such cases accordingly 5 marks be given. Marks be allotted as per the involvement of the students.

Submission: Students are supposed to submit lab book in time. If he/she submits the practical writeup in same or immediate next practical session, give 5 marks and if he/she fails to submit 1 mark each be reduced for every subsequent session. If he/she submits the lab book thereafter during the semester 1 mark be given. And if he/she submits lab bookduring the semester 1 mark be given.

Presentation: Teacher should assess the lab book by verifying the neatness, content of write up, results and conclusion. This is subjective, if teacher finds lab work as per requirements 5 marks be given. Results and conclusion shall be based on what is understood/observed by the student and how the output is interpreted by the student.

Oral: Student be asked queries related to practical/ theory, and based on student's performance marks be allotted.

Note:*For B1 and B2*: *The total marks of all experiments in Lab Book be converted out of 5 /6 marks at Sr. No. 1 under B in PART-I i.e. "Lab Book (Timely submission and presentation of writeup)", as the case may be.*

For C1 and C2: *The total marks of all experiments in Lab Book be converted out of 6 /7 marks at Sr. No. 1 under C in PART-I i.e. "Lab Book (Timely submission and presentation of writeup)", as the case may be, and marks related to Sr. No. 2 under C in PART-I i.e. "Timely*

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completion of Practicals" be linked with the attendance of Practicals and be converted out of 5/6 marks as follows:

Attendance in %*	Marks
100	5/6
95-99	4/5
90-94	3/4

Attendance in %*	Marks
85-89	2/3
80-84	1/2
Below 80 and Completed by extra sessions	0/1

* Sanctioned leave be considered as attendance after completion of the particular practical during extra session.

2. **Each *Assignment be assessed on the basis of timely submission (10 M), presentation (10 M) and oral (5 M)***

Timely Submission	Presentation	Oral	Total
Out of 10 Marks	Out of 10 Marks	Out of 5 Marks	Out of 25 Marks

Timely Submission: Student is supposed to submit the assignment within the stipulated time to get full marks. If student fails to submit the assignment in time, 1 mark each for every late day be reduced. However, thereafter for the submission of the assignment during the semester he/she be given 2 marks.

Presentation: Presentation of assignment be judged based on contents, neatness, completeness, etc.

Oral: Questions on assignment be asked to verify the understanding of the student. If the student fails to answer, he/she be asked to prepare and appear for the oral once again. Marks be given based on oral performance.

Note: The total marks of all assignments in the assignment book be converted; out of 8 or 10 at Sr. No. 1 under A1 and A2, respectively and out of 3 or 4 at Sr. No. 1 under B1 and B2, respectively in PART-I i.e. "Assignment / Tutorial (Timely submission and presentation of write up)".

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II] Progressive Assessment for "Attendance in Practice Session":

- Attendance record of practice sessions be maintained separately.
- "Attendance in Practice Session" marks at Sr. No. 2 under A at A1 and Sr. No. 3 under B at B1 in PART-I be allotted based on attendance of practice sessions as given below:

Sr. No.	Percentage of Practice Session Attendance*	A1	B1
1	100	4	3
2	90-99	3	2
3	85-89	2	1
4	80-84	1	1
5	75-79	0	0
6	Below 75	-1	-1

* Rounding be done to upper integer number

III] Progressive Assessment for "Unit Tests" (6 Marks):

- Minimum 3 unit tests be conducted as per ESE pattern i.e. 20% MCQs and 80% subjective questions.
- These tests be on syllabus of Unit No. 1, 3, 5, etc.
- **Final ICA (Term Work) marks distribution be as follows:**

Sr. No.	Particulars	Percentage marks in all the tests together	Marks to be given out of 6
1.	Student passes in all unit tests	80 and Above	6
2.	Student passes in all unit tests	70 and Above	5
3.	Student passes in all unit tests	60 and Above	4
4.	Student passes in all unit tests	50 and Above	3
5.	Student fails in or remains absent for any one of the unit tests	-	2
6.	Student fails in or remains absent for any two of the unit tests	-	1
7.	Student fails in or remains absent for all the unit tests	-	0

Note:

1. Above provisions are for subjects with 70 marks ESE. Modifications be made accordingly, for subjects having different marks for ESE.
2. Student, failing in or remaining absent for the test or willing to improve, at his/her choice may opt for retest, within 5 days from the date of declaration of the result, once for each test by paying charges of Rs. 100/- per test.Best performance be retained.

B Range

IV] Progressive Assessment for "PPPE write up":

- PPPE write up be checked at every practical/tutorial session by respective teacher.
- If there is no practical/tutorial session, one day in the week be decided by the concerned teacher for getting PPPE write up checked.
- Assessment Marks for each session be out of 10 and be given based on the following criterion:

Submission	Presentation	Oral	Total
(Out of 5 Marks)	(Out of 3 Marks)	(Out of 2 Marks)	(Out of 10 Marks)

Submission: Five (5) marks be given if the student submits the PPPE writeup in immediate next practical/tutorial session or the day assigned, as the case may be. If there is delay in submission, 1 mark each be reduced for every subsequent session. However, 1 mark be given for submission thereafter during the semester.

Presentation: Teacher should assess the PPPE write up by verifying the neatness, contents, completeness, etc. of the write up. Three (3) marks be given, if the teacher finds PPPE write up as per the requirements.

Oral:Questions on PPPE writeup be asked to verify the understanding of the student. If the student fails to answer, he/she be asked to prepare and appear for the oral once again. Marks be given based on oral performance.

Note:*The total marks of all PPPE write up be converted; out of 5 or 7 at Sr. No. 4 in A under A1 and A2, respectively, out of 4 at Sr. No. 5 in B under both B1 and B2, and out of 2 at Sr. No. 3 in C under both C1 and C2, if applicable, in PART-I i.e.* "PPPE write up".

V) Progressive assessment for "Lab Tests":

- TwoLab Tests be conducted during the semester, in line with first two ISEs, for the subjects where students have to perform experimental practicals.
- Weightage for each Lab Test be of 20 marks as per the distribution given below:

Conduct of Experiment	Presentation	Results and Conclusion	Oral	20 Marks
Out of 10	Out of 3	Out of 5	Out of 2	Out of 20

Conduct of Experiment:Ten (10) marks be given if the student conducts experiment as per the standard procedure of the experiment. If the experiment is not completed, appropriate marks be given based on number of steps completed.

Presentation: Teacher should assess the Lab Test write up by verifying the neatness, contents, completeness, etc. of the write up. Three (3) marks be given, if the teacher finds the write up as per the requirements.

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Results and Conclusion: Five (5) marks be given if the results are appropriate and proper conclusion is drawn.

Oral: Questions on Lab Test be asked to verify the understanding of the student. If the student fails to answer, he/she be asked to prepare and appear for the oral once again. Marks be given based on oral performance.

Final ICA (Term Work) marks distribution be as follows:

Sr. No.	Particulars	Percentage marks in all the tests together	**B1 (Out of 2 Marks)**	**B2 (Out of 3 Marks)**	**C1 and C2 (Out of 7 Marks)**
1.	Student passes in all Lab Tests	80 and Above	2	3	7
2.	Student passes in all Lab Tests	70 and Above	1	2	5
3.	Student passes in all Lab Tests	60 and Above	1	1	4
4.	Student passes in all Lab Tests	50 and Above	1	1	3
5.	Student fails in or remains absent for any one of the Lab Tests	-	0	0	0
6.	Student fails in or remains absent for all the Lab Tests	-	-1	-1	-1

Note:

Student, failing in or remaining absent for the Lab Tests or willing to improve, at his/her choice may opt for retest, within 5 days from the date of declaration of the result, once for each test by paying charges of Rs. 100/- per Lab Test.Best performance be retained.

B. Bange

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Internal Continuous Assessment (ICA) Tools

- Assignment
- Journal
- Chapter Test/Unit Test (CT/UT)
- Lab Test (LT)

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Internal Continuous Assessment (ICA) Tools

Assignment

INDEX

(Assignment / Tutorial Book Assessment)

Sr. No.	Title of Assignment / Tutorial	Page No.	CO	Date of Assign./Tut.		Marks (25)			Total Marks (25)	Sign.
				Given	Checked	Timely Submission (10)	Presentation (10)	Oral (5)		
1.	Assignment No. 1	1	1	15/7	19/7	9	9	4	22	19/9
	Introduction of Qty. Sur									
2	Assignment No.2	6	1	24/7	24	9	9	3	21	24/8
	Rate analysis & Code									
3	Assignment No. 3	9	2	9/8	30/8	9	9	4	22	28/8
	Detail Estimate of build.									
4.	Assignment No 4	17	2	30/8	6/9	9	9	4	22	6/9
	Thumb rules & materials SV									
5.	Assignment No. 5	20	3	6/9	13/9	10	9	4	23	13/9
	Tender & contract									
6.	Assignment no. 6	25	4	19/9	26/9	10	4	4	23	26/9
	Valuation									
7.	Assignment No:7	40	5	1/10	3/10	10	10	4	24	3/10
	Valuation of building									
8	Assignment No 8	40	6	3/10	11/10	10	10	4	24	11/10
	Depreciation of build.									

CERTIFICATE

This is certify that Mr. / Miss. / Mrs. Gawade Ajay Santosh of

Class BE Division .... Roll No 37 Semester V has completed satisfactorily

Assignments/Tutorials in QSV during the academic year 2019-20

Date : 11/10

Subject Teacher | Head of Dept. HEAD | Principal B.Ronge

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Internal Continuous Assessment (ICA) Tools

Journal

Journal

INDEX
(Laboratory Book Assessment)

Sr. No.	Title of Experiment	Page No.	CO	Date of Expt.		Marks (25)					Total Marks (25)	Sign
				Performed	Submitted	Attendance (5)	Performance (5)	Submission (5)	Presentation (5)	Oral (5)		
1.	Workability of concrete	1	2	29/1	9/2	5	5	5	5	2	22	
2.	Compression strength of concrete	9	3	9/2	16/2	5	5	5	5	2	22	
3.	Flexural Strength of concrete	14	3	16/2	23/2	5	5	5	5	3	23	
4.	Split tension test	18	3	16/2	23/2	5	5	5	5	3	23	
5.	Design of concrete	22	3	23/2	16/3	5	5	5	5	4	24	
6)	Non-destructive test	31	5	16/3	23/3	5	5	5	5	4	24	
7)	Ultrasonic pulsic velocity test	35	6	16/3	23/3	5	5	5	5	4	24	

CERTIFICATE

This is to certify that Mr./Miss./Ms. Anjali Ganpat kumbhar of Class T. E Division ..... Roll No. 10 Semester II has completed satisfactorily Experiments in Advanced Concrete Technology during the academic year 2018-19

Date: 15/4/19

Subject teacher | Head of Dept. | Principal

HEAD,
Dept. of Civil. Engg.

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Internal Continuous Assessment (ICA) Tools

Unit Test/Chapter Test (UT/CT)

- Question Paper
- Answer Sheet
- Result

SVERI'S College of Engineering, Pandharpur

S.Y.B.Tech (Mechanical) UT-II Academic Year -2019-20

ICE

Div: - A&B

Day and Date: Wednesday & 11/09/2019

Marks - 20

Duration–1 Hr

CO	CO STATEMENT	BLOOMS LEVEL	MAX. MARKS
ME215.2	Differentiate the working principles and constructional details of various fuel systems used in different types of I. C. Engines.	BL 3	10
ME215.3	Explain the methods adopted for their performance improvement.	BL 3	10

Instructions - I) All questions are compulsory.
II) Assume suitable data if required.

Q. 1	MCQ'S/objectives type questions	Marks 2x1=02	Related CO & Blooms Level	PI
1.	Fuel injector is used in a) S I engines b)gas engines c) C I engines d)none of above	01	ME215.2 BL-3	1.4.1
2.	Multi point fuel injection system a) manifold injection b) port injection c) throttle body injection d) both b) and c)	01	ME215.2 BL-3	1.3.1
Q.2	**MCQ'S/objectives type questions**	2x1=02		
1.	Following are the types of supercharger. A.Root B.Centrifugal C.Vane D. All the above	01	ME215.3 BL-3	1.4.1
2.	Supercharging is the Process of A. Providing the forced cooling air B. Raising exhaust pressure C. Increasing the density. D. None of the above.	01	ME215.3 BL-3	1.3.1
Q. 3	**Attempt the following Questions.**	4x2=08		
1.	State types of fuel injection system explain any one.	04	ME215.2 BL-3	1.3.1
2.	Explain any one type of governor.	04	ME215.2 BL-3	1.4.1
Q.4	**Attempt the following Questions.**	4x2=08		
1.	Explain purpose of supercharging.	04	ME215.3 BL-3	1.4.1
2.	Explain the concept of Turbocharging.	04	ME215.3 BL-3	1.3.1

.....All the Best.....

Shri Vithal Education & Research Institute's

COLLEGE OF ENGINEERING, PANDHARPUR

ISE / Unit Test No.: CT-2 Date.: 06-09-19

Name of Student.: Samruddhi Deshpande

Class.: SY B Tech (Mech) Division.: B

Roll No.: SB-01 Subject.: IC Engine

Sign of Supervisor.: ✓ Marks.: 18/20

CO:	BL	PI Code	Q.No.	a	b	c	d	e	f	Total
2	3	1.4.1	1	1	1					2
3	3	1.3.1	2	1	1					2
2	3	1.4.1	3	½	½					8
3	3	1.3.1	4	½	2					6
			5							
			6							
			7							
			8							
									Grand Total	18/20

✓

Q.1]

1. b] ✓ 2

2. b] ✓

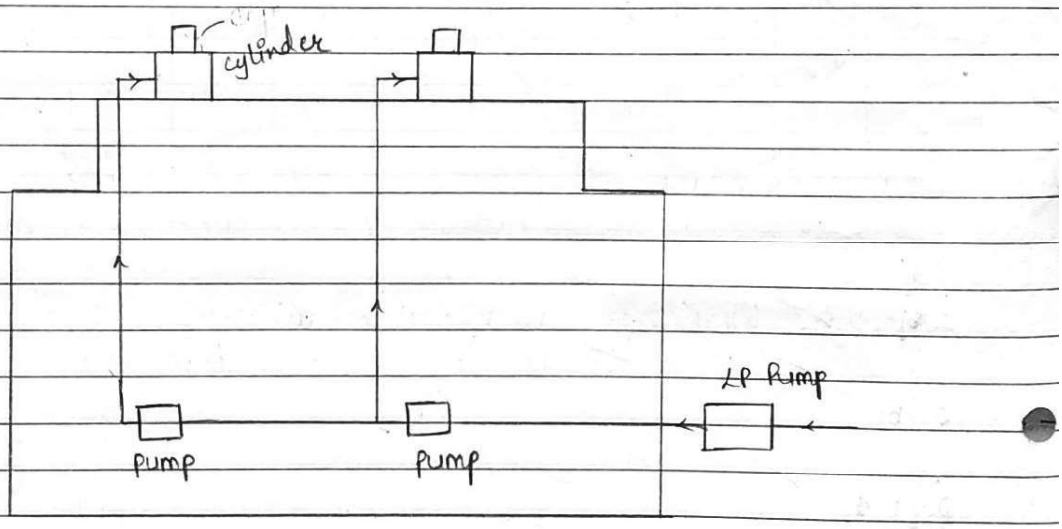
Q.2] 1. d] ✓ 2

2. c] ✓

Injection System

- Air Injection
- Solid (Airless) Injection
  - Mechanical Injection System
    - Individual pump & nozzle
    - Unit Injector
    - Common Rail
    - Distributor System.
  - Electronic fuel Injection sys.

Individual Pump and Nozzle System.

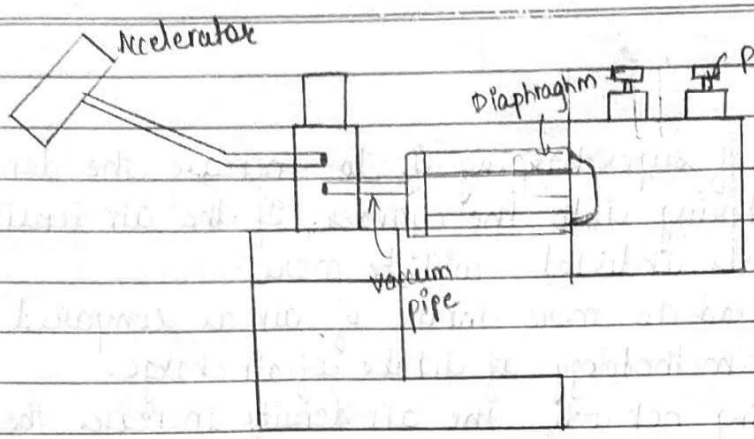


In this individual pump and nozzle system there is separate pump and injector provided for the each cylinder.

Also a low pressure pump is attached to each of the pump and injectors which are in turn attached with their separate cylinder arrangement.

The plunger present in the arrangement activates the cam and shaft and therefore fuel is injected into the system.

2.



Pneumatic governor is one of the types of governor which used to maintain the speed constant. In this type of governor it is used as one of the fuel injection system.

It contains two types of units

1] Venturi intake manifold unit

In this unit the venturi's principle is utilized to undergo the process of injecting the fuel.

In this system the injection of ful takes place through the Venturi unit.

2] Diaphragm unit

In this unit the entry and exit of the ~~air~~ fuel depends on the amount of vaccum created.

This means the ~~the~~ amount of ~~air~~ fuel which is to be utilized for the injection depends on the diaphragm unit.

If the diaphragm contraxes and rulaxes the vaccum created in the diaphragm will be increased or decreased.

Construction

The working of this governor depends on the load of the applied.

If the load applied is increased then the speed of the governor will ~~increa~~ decrease.

If the load applied is decreased then the speed of the governor will increase

Q4]

1.

The purpose of supercharging is to increase the density of air charge entering into the cylinder. If the air density increases then the mass inducted will be more.

This will lead to more intake of air as compared to the normal methodology of intake of air charge.

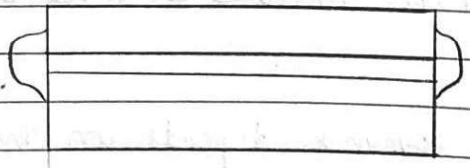
By supercharging not only the air density increases the efficiency and speed of the engine also increases.

1. Due to supercharging their will be high power out.
2. Also there will be resulting the detonation.
3. Also due to this there will be increase in the temperature and pressure

Q4]

→ Turbocharging is the process in which the gas turbines are used for the utilization of the gases.

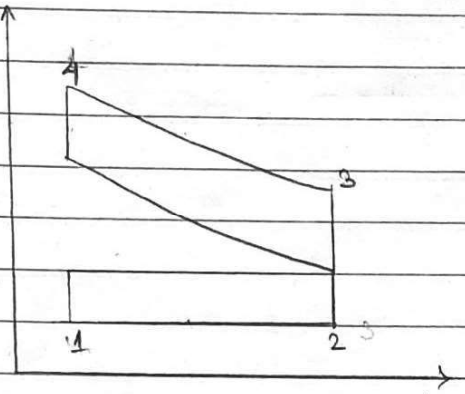
→ In this method specially exhaust gases are utilized which are on the other hand go as a waste product.



Turbocharger

→ An SI petrol engine usually harness 30 % of the heat energy and the remaining 70 % of the gases go out as exhaust gases.

→ Around 7 % of heat energy is used as friction, pumping and loss
9 % of heat energy is utilized as surrounding air
16 % of heat energy is utilized as the gases
38 % of heat energy is utilized as the exhaust gases


4
3
1
2

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT

ACADEMIC YEAR: 2019-20 **SEM- II** **UT-II: MARK LIST**
CLASS: S.Y.B.Tech B **SUBJECT: ICE**

Roll. No.	Marks (20)	Roll. No.	Marks (20)
01	18	28	14
02	16	29	12
03	16	30	11
04	15	31	10
05	15	32	11
06	16	33	16
07	19	34	0
08	13	35	11
09	6	36	11
10	16	37	15
11	10	38	8
12	10	39	12
13	16	40	11
14	20	41	20
15	12	42	16
16	18	43	19
17	7	44	8
18	12	45	11
19	10	46	15
20	14	47	17
21	19	48	15
22	14	49	12
23	15	50	20
24	9	51	9
25	12	52	12
26	12	53	9
27	13		

(Prof. S. S. Jadhav)
Subject Teacher

(Dr. S. A. Sonawane)
Head of Dept.

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Internal Continuous Assessment (ICA) Tools

Lab Test (LT)

- Question Paper
- Answer Sheet
- Result

SVERI'S College of Engineering, Pandharpur

S.Y B-Tech (Mechanical) LT-I Academic Year -2019-20

Internal Combustion Engine

Div: - B

Day and Date: 9/11/2019 **Marks - 20**

Q. 1	**Solve the following questions.**	**20 (M)**
1.	A four cylinder, four stroke engine running at 40 rev/sec has a carburetor venturi with a 3 cm throat. Assuming the bore to be 10 cm, volumetric efficiency of 75%, density of air to be 1.15m^3/kg, coefficient of air flow equals 0.75, calculate the suction pressure at the throat. Neglect the compressibility of air.	**10**
2.	Explain fuel system for CI engine and explain type of injection.	**10**

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT

ACADEMIC YEAR: 2019-20 **SEM- I** **LT-I: MARK LIST**

CLASS: SY BTech-B **SUBJECT: ICE**

Roll. No.	Marks (20)	Roll. No.	Marks (20)	Roll. No.	Marks (20)
01	20	**21**	18	**41**	18
02	18	**22**	17	**42**	18
03	17	**23**	18	**43**	17
04	17	**24**	18	**44**	17
05	18	**25**	17	**45**	18
06	19	**26**	18	**46**	18
07	19	**27**	19	**47**	17
08	18	**28**	15	**48**	17
09	16	**29**	18	**49**	18
10	17	**30**	18	**50**	18
11	20	**31**	18	**51**	17
12	15	**32**	15	**52**	17
13	16	**33**	18	**53**	19
14	17	**34**	18		
15	17	**35**	16		
16	17	**36**	17		
17	18	**37**	17		
18	16	**38**	18		
19	17	**39**	18		
20	19	**40**	15		

Sr. No.	Particulars	Total No.
01	Strength of Class	**53**
02	No. of students **Appeared** for Examination	**53**
03	No. of students **Absent** for Examination	**00**
04	No. of students **Failed** in Examination	**00**
05	No. of students **Passed** in Examination	**53**
06	**% Result** of the Subject	**100**

(Prof. S. S. Jadhav)
Subject Teacher

(Dr. S. A. Sonawane)
Head, Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
S.V.C.E. Pandharpur.

Shri Vithal Education & Research Institute's

COLLEGE OF ENGINEERING, PANDHARPUR

ISE / Unit Test No.: Lab Test No-01 Date.: 9/11/2019

Name of Student.: Samruddhi Deshpande

Class.: SVB Tech (Mech) Division.: B

Roll No.: SB-01 Subject.: IC Engine

Sign of Supervisor.: Marks.: 20/20

CO:	BL	PI Code	Q.No.	a	b	c	d	e	f	Total
			1	10						10
			2	10						10
			3							
			4							
			5							
			6							
			7							
			8							
									Grand Total	20/20

Q1] A 4 cylinder 4 stroke square engine is running at 40 rps has a carburator venturi with a 3cm throat assuming the bore to be 10cm, Volumetric efficiency is 75%. Density of air 1.15 kg/m³. Coefficient of air flow is 0.75. Calculate the suction pressure at the throat, Neglect compressibility of air.

Given

$N = 40 \text{ rps}$.

$d_2 = 3\text{cm} = 0.03\text{m}$

$L = D = 10\text{cm} = 0.1\text{m}$

$\eta_v = 75\% = 0.75$

$\rho_a = 1.15 \text{ kg/m}^3$

$C_d = 0.15$

$P_2 = ?$

Volumetric Efficiency η_v

$$\eta_v = \frac{\text{Actual volume } (V_a)}{\text{Swept volume } (V_s)}$$

$$V_a = \eta_v \times \text{Swept volume}$$

$$\frac{V_a}{\text{sec}} = \eta_v \times \text{Swept volume} \times \text{no. of power stroke } (n)$$

$n = \frac{N}{2}$ for 4stroke

$n = N$ for 2stroke

$$m_a = \rho_a \times V_a$$

Swept vol^m $[V_s] = \frac{\pi}{4} \times D^2 \times L$

$= \frac{\pi}{4} \times D^2 \times L \times$ No. of cylinder

$V_s = \frac{\pi}{4} \times (0.1)^2 \times 0.1 \times 4$

$$\boxed{V_s = 3.14 \times 10^{-3} \text{ m}^3}$$

Actual vol^m $[V_a] = 0.75 \times 3.14 \times 10^{-3} \times 20]$

$$\boxed{V_a = 0.0471 \text{ m}^3/\text{sec}}$$

$\dot{m}_a = \rho_a \times V_a$

$= 1.15 \times 0.0471$

$\dot{m}_a = 0.0541$ kg/sec.

$$\dot{m}_a = C_d \times A_2 \sqrt{2 \times \rho_a \times \Delta P_a}$$

$$A_2 = \frac{\pi}{4} d^2$$

$$= \frac{\pi}{4} \times (0.03)^2$$

$$\boxed{A_2 = 7.068 \times 10^{-4} \, m^2}$$

$$\dot{m}_a = C_d A_2 \sqrt{2 \rho_a \Delta P_a}$$

$$(\dot{m}_a)^2 = C_d^2 \times A_2^2 \times 2 \rho_a \cdot \Delta P_a$$

$$\Delta P_a = \frac{\dot{m}_a^2}{C_d^2 \times A_2^2 \times 2 \rho_a}$$

$$\Delta P_a = \frac{(0.0541)^2}{(0.75)^2 \times (7.068 \times 10^{-4})^2 \times 2 \times 1.15}$$

$$\Delta P_a = 4528.465 \, N/m^2$$

$$\boxed{\Delta P_a = 0.045 28 \text{ Bar}}$$

$$\Delta P_a = P_1 - P_2$$

$$0.04527 = 1 - P_2$$

$$P_2 = 1 - 0.04527$$

$$\boxed{P_2 = 0.95 \text{ Bar}}$$

10

Q7] Explain fuel system for CI Engine and explain type of injection

Requirements of CI engine fuel injection system.

1. To supply the correct quantity of fuel to be injected as per the speed and load of the engine

2. The amount of fuel injected per cycle should be measured accurately

3. The injected fuel must be broken into very fine droplets.

4. Proper spray pattern so that proper mixing of air and fuel is taken place

5. Uniform distribution of fuel droplets through out the combustion chamber.

6 The beginning and the end of the injection should be sharp.

7. Uniform supply of fuel all cylinders in the case of multicylinder engine.

8. The weight and size of the fuel injected system must be minimum.

9. Lower capital and maintenance cost.

Injection System

Air Injection

Solid (airless) injection

Mechanical Injection

Electronic fuel Injection

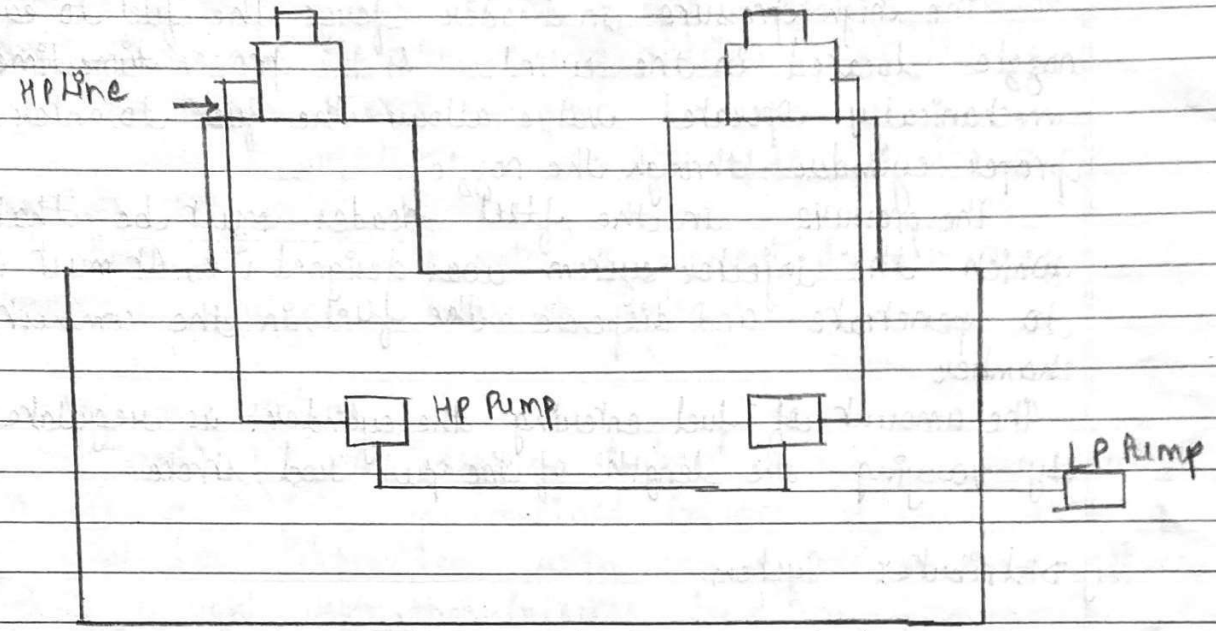
Individual Pump Nozzle

Unit Injector

Common Rail Injector

Distributor System

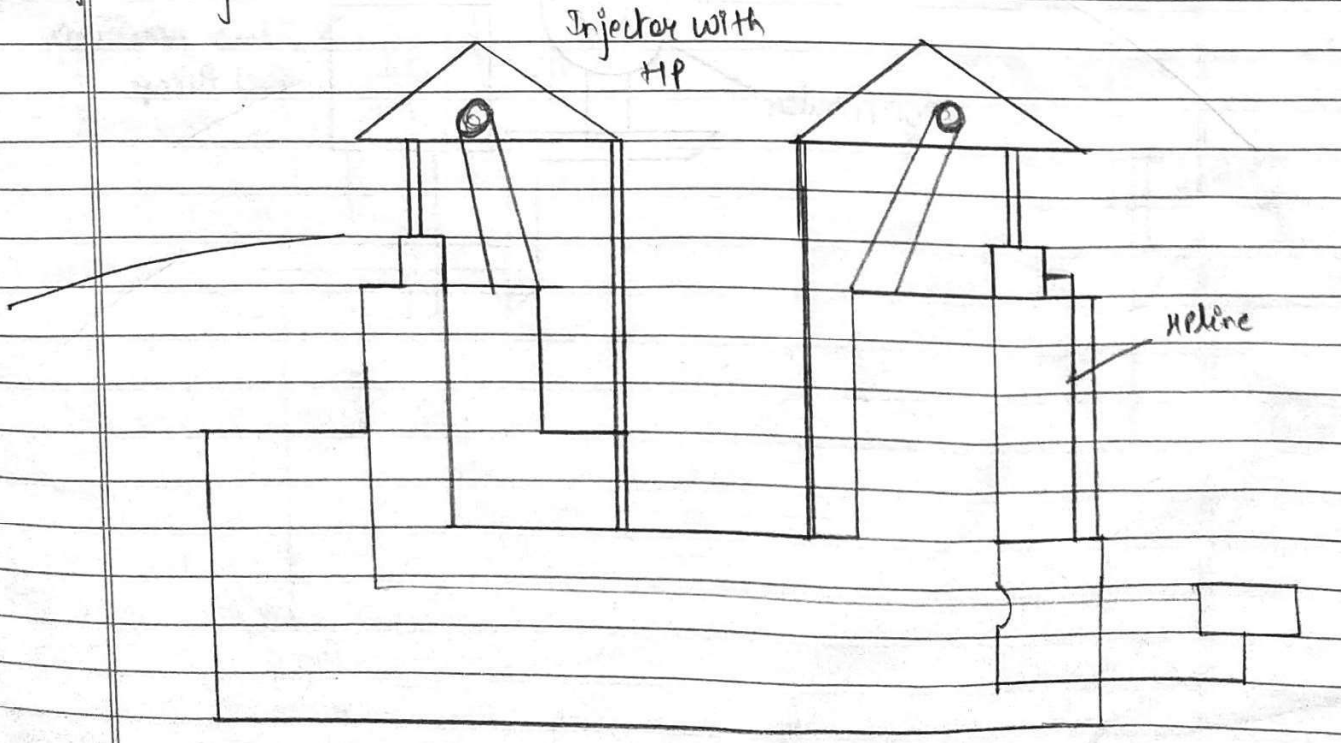
1. Individual Pump and Nozzle system.



In this system each cylinder is provided with one pump and one injector. In this arrangement a separate metering and compression pump is provided for each cylinder.

The pump may be placed close to the cylinder. the high pressure pump plunger is actuated by a cam and produces the fuel pressure necessary to open the injector valve at the correct time. The amount of fuel injected depends on the effective stroke of the plunger

2] Unit Injector.



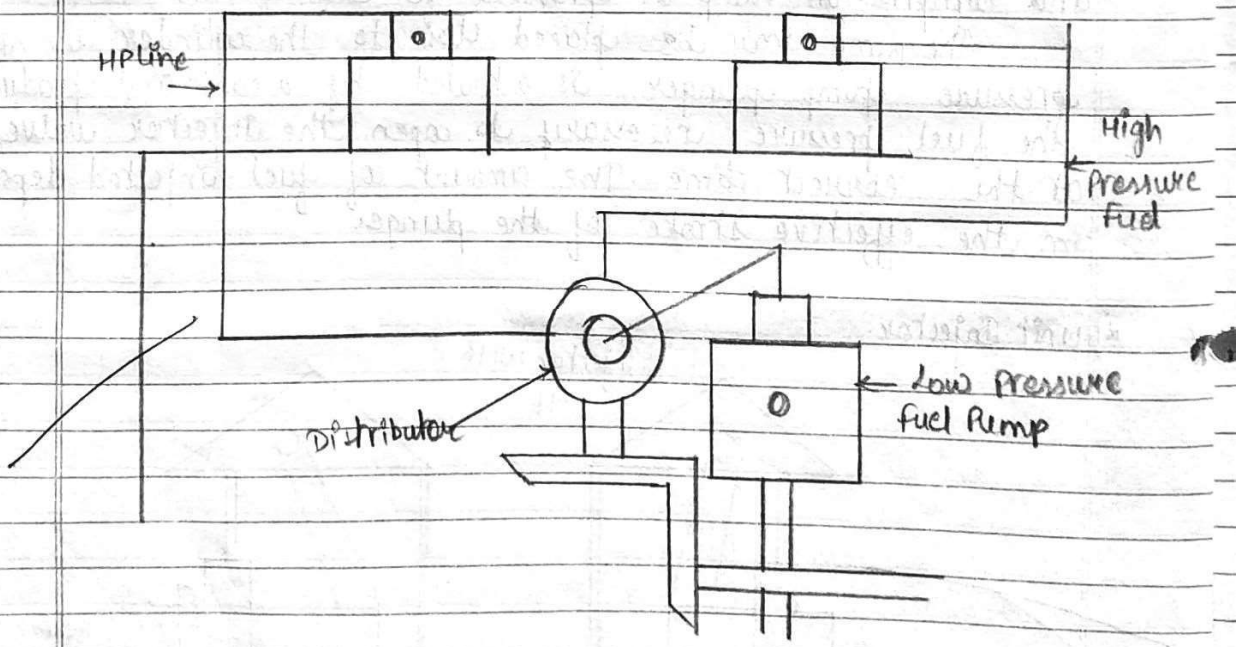
In the common rail system a HP pump supplies fuel under high pressure to a fuel header.

The high pressure in header force the fuel to each of the nozzle located in the cylinder. At the proper ~~time~~ time a mechanically operated valve allows the fuel to enter the proper cylinder through the nozzle.

The pressure in the ~~fuel~~ header must be that for which the injector system was designed i e, it must able to penetrate and disperse the fuel in the combustion chamber

The amount of fuel entering the cylinder is regulated by varying the length of the push rod stroke.

4] Distributor System.



In this system the pump which pressurise the fuel in the system also meters and times it.

The fuel pump after metering the required amount of fuel is supplied it to rotating distributor at the correct time for supply to each cylinder

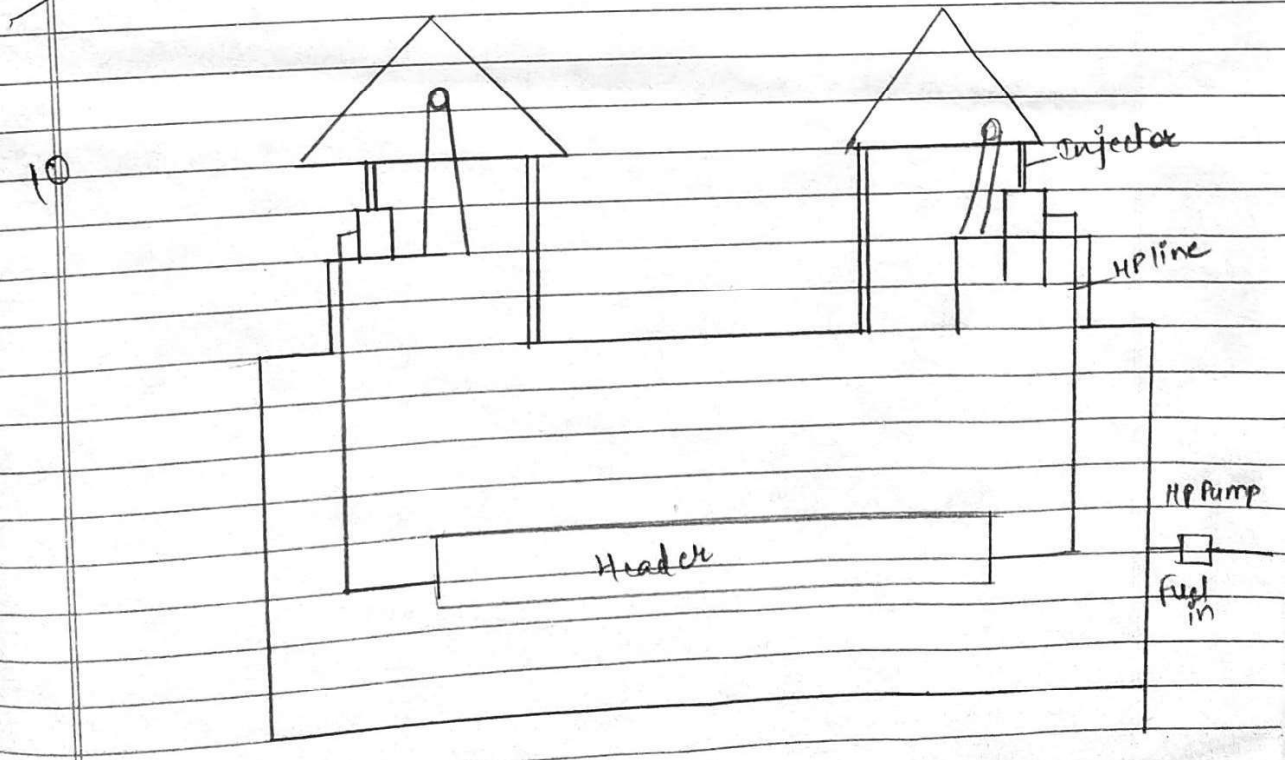
The number of injection strokes per cycle for the pump is equal to the no. of cylinders

Since there is one metering element in each pump a uniform distribution is automatically ensured

Unit Injector System

The unit injector system is one in which the pump and injector nozzle are combined in one of this housing. Each cylinder is provided with one of this unit injectors. fuel is brought upto the injector by a low pressure pump where at the ~~##~~ proper time a rocker arm actuates the plunger and thus injects the fuel into the cylinder. The amount of fuel injected is regulated is by the effective stroke of the plunger.

Common Rail System



Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Internal Continuous Assessment (ICA) Marks

Assignments Marks

Name of Course: Internal Combustion Engines										
Total No. of Assignments			8							
Sem:	I		Class	.Y.B.Tech		Div	B		A.Y	2019-20
Out of	25									
Roll No	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**Total**	**Average**
SB 01	24	24	24	24	24	24	24	24	192	24
SB 02	24	24	24	24	24	24	24	24	191	24
SB 03	24	24	24	24	23	24	24	24	191	24
SB 04	24	24	24	24	24	24	24	24	192	24
SB 05	24	24	24	24	24	24	23	24	191	24
SB06	24	24	24	24	24	24	24	24	192	24
SB 07	24	24	22	23	24	23	24	24	188	24
SB 08	24	24	24	24	23	24	25	25	193	24
SB 09	19	20	21	22	23	22	23	24	174	22
SB 10	22	24	22	23	22	23	23	24	183	23
SB 11	23	23	24	24	23	24	23	24	188	24
SB 12	24	23	23	23	24	23	23	24	187	23
SB 13	24	24	24	24	24	24	25	24	193	24
SB 14	23	24	23	24	24	24	24	25	191	24
SB 15	22	21	22	22	23	24	23	24	181	23
SB 16	23	24	24	24	24	24	24	24	191	24
SB 17	15	15	15	15	15	15	15	15	120	15
SB 18	19	20	21	22	22	22	23	24	173	22
SB 19	23	19	20	20	21	22	23	24	172	22
SB 20	24	24	21	22	23	24	25	25	188	24
SB 21	24	24	24	24	24	24	24	24	192	24
SB 22	23	20	21	23	23	24	24	24	182	23
SB 23	21	20	21	21	22	24	24	24	177	22
SB 24	19	19	20	21	23	23	23	22	170	21
SB 25	19	20	20	22	22	24	24	24	175	22
SB 26	23	23	23	24	22	23	24	24	186	23
SB 27	19	22	22	20	20	21	21	23	168	21
SB 28	23	20	21	22	23	24	23	23	179	22
SB 29	23	23	23	22	23	23	24	24	185	23
SB 30	23	22	23	24	22	23	24	24	185	23
SB 31	18	19	20	21	22	23	23	24	170	21
SB 32	21	24	24	24	24	24	24	24	189	24
SB 33	23	22	22	22	24	23	24	24	184	23
SB 34	19	19	20	20	20	23	24	24	169	21
SB 35	23	24	23	21	22	23	24	24	184	23
SB 36	24	24	21	22	23	24	24	24	186	23
SB 37	23	23	23	23	22	23	22	24	183	23
SB 38	20	21	21	22	24	24	25	25	182	23
SB 39	22	22	21	21	23	23	23	24	179	22
SB 40	22	24	23	23	24	24	23	24	187	23
SB 41	23	24	24	24	24	24	24	24	191	24
SB 42	21	23	20	21	22	23	23	24	177	22
SB 43	21	22	23	24	24	23	23	25	185	23
SB 44	23	23	23	23	24	24	24	24	188	24
SB 45	21	22	23	24	23	23	24	24	184	23
SB 46	22	23	24	24	23	24	23	23	186	23
SB 47	24	24	24	24	24	24	24	24	192	24
SB 48	23	20	21	21	22	23	23	24	177	22
SB 49	23	23	24	22	23	24	24	24	187	23
SB 50	23	24	23	23	22	24	24	23	186	23
SB 51	24	20	20	21	21	22	22	23	173	22
SB 52	22	20	20	21	23	23	24	23	176	22
SB 53	22	23	24	24	23	24	23	23	186	23

Sub. Teacher

Class Coodinator

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Journal/ Lab Book Marks

Name of Course: Internal Combustion Engines.							
Total No. of Experiments		8					
Sem:	I	Class	SYBTech		Div	B	

Out of 25

Roll No.	E1	E2	E3	E4	E5	E6	E7	E8	Total	Average
SB 01	24	24	24	24	24	24	24	24	192	24
SB 02	24	24	24	24	24	24	24	24	192	24
SB 03	24	24	24	24	24	24	24	24	192	24
SB 04	24	24	24	24	24	24	24	24	192	24
SB 05	24	24	24	24	24	24	24	24	192	24
SB06	24	24	24	24	24	24	24	24	192	24
SB 07	24	24	24	24	24	24	24	24	192	24
SB 08	24	24	24	24	24	24	24	24	192	24
SB 09	20	20	20	20	20	20	20	20	160	20
SB 10	23	23	23	23	23	23	23	23	184	23
SB 11	23	23	23	23	23	23	23	23	184	23
SB 12	20	20	20	20	20	20	20	20	160	20
SB 13	23	23	23	23	23	23	23	23	184	23
SB 14	22	22	22	22	22	22	22	22	176	22
SB 15	22	22	22	22	22	22	22	22	176	22
SB 16	24	24	24	24	24	24	24	24	192	24
SB 17	15	15	15	15	15	15	15	15	120	15
SB 18	21	21	21	21	21	21	21	21	168	21
SB 19	20	20	20	20	20	20	20	20	160	20
SB 20	23	23	23	23	23	23	23	23	184	23
SB 21	24	24	24	24	24	24	24	24	192	24
SB 22	23	23	23	23	23	23	23	23	184	23
SB 23	23	23	23	23	23	23	23	23	184	23
SB 24	20	20	20	20	20	20	20	20	160	20
SB 25	20	20	20	20	20	20	20	20	160	20
SB 26	22	22	22	22	22	22	22	22	176	22
SB 27	22	22	22	22	22	22	22	22	176	22
SB 28	20	20	20	20	20	20	20	20	160	20
SB 29	21	21	21	21	21	21	21	21	168	21
SB 30	24	24	24	24	24	24	24	24	192	24
SB 31	20	20	20	20	20	20	20	20	160	20
SB 32	22	22	22	22	22	22	22	22	176	22
SB 33	23	23	23	23	23	23	23	23	184	23
SB 34	23	23	23	23	23	23	23	23	184	23
SB 35	21	21	21	21	21	21	21	21	168	21
SB 36	22	22	22	22	22	22	22	22	176	22
SB 37	24	24	24	24	24	24	24	24	192	24
SB 38	20	20	20	20	20	20	20	20	160	20
SB 39	23	23	23	23	23	23	23	23	184	23
SB 40	22	22	22	22	22	22	22	22	176	22
SB 41	24	24	24	24	24	24	24	24	192	24
SB 42	22	22	22	22	22	22	22	22	176	22
SB 43	24	24	24	24	24	24	24	24	192	24
SB 44	23	23	23	23	23	23	23	23	184	23
SB 45	21	21	21	21	21	21	21	21	168	21
SB 46	23	23	23	23	24	24	24	24	188	24
SB 47	24	24	24	24	24	24	24	24	192	24
SB 48	24	24	24	24	24	24	24	24	192	24
SB 49	23	23	23	23	23	23	23	23	184	23
SB 50	24	24	24	24	24	24	24	24	192	24
SB 51	23	23	23	23	23	23	23	23	184	23
SB 52	21	21	21	21	21	21	21	21	168	21
SB 53	21	21	21	21	21	21	21	21	168	21

Sub. Teacher

Class Coodinator

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C.O.E. Pandharpur.

Unit Test/Chapter (UT/CT) Test Marks

Name of Course: Internal Combustion Engines.							
Min Marks	8	Max Marks	20				
Sem:	I	Class	SYBTech	Div	B	A.Y	2019-20

Out of 20 (UT) — Out of 20 (LT)

Roll No.	UT1	UT2	UT3	Total	% marks	LT1	LT2	Total	% Marks	Unit Test Marks					LAB Test marks					
														Final Effect				B1	B2	C1&C2
SB 01	18	18	20	56	93	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 02	14	16	19	49	82	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 03	10	16	19	45	75	20	20	40	100	1	1	1	3	5	1	1	2	2	3	7
SB 04	14	15	18	47	78	20	20	40	100	1	1	1	3	5	1	1	2	2	3	7
SB 05	11	15	15	41	68	20	20	40	100	1	1	1	3	4	1	1	2	2	3	7
SB06	19	16	19	54	90	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 07	15	19	16	50	83	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 08	16	13	12	41	68	20	20	40	100	1	1	1	3	4	1	1	2	2	3	7
SB 09	5	6	9	20	33	19	20	39	98	0	0	1	1	1	1	1	2	2	3	7
SB 10	12	16	20	48	80	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 11	13	10	12	35	58	20	20	40	100	1	1	1	3	3	1	1	2	2	3	7
SB 12	12	10	13	35	58	18	18	36	90	1	1	1	3	3	1	1	2	2	3	7
SB 13	12	16	14	42	70	20	20	40	100	1	1	1	3	5	1	1	2	2	3	7
SB 14	12	20	20	52	87	17	17	34	85	1	1	1	3	6	1	1	2	2	3	7
SB 15	11	12	0	23	38	17	17	34	85	1	1	0	2	2	1	1	2	2	3	7
SB 16	14	18	17	49	82	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 17	13	7	0	20	33	20	20	40	100	1	0	0	1	1	1	1	2	2	3	7
SB 18	12	12	12	36	60	17	17	34	85	1	1	1	3	4	1	1	2	2	3	7
SB 19	6	10	6	22	37	17	17	34	85	0	1	0	1	1	1	1	2	2	3	7
SB 20	13	14	14	41	68	19	20	39	98	1	1	1	3	4	1	1	2	2	3	7
SB 21	20	19	20	59	98	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 22	17	14	11	42	70	17	18	35	88	1	1	1	3	5	1	1	2	2	3	7
SB 23	7	15	4	26	43	17	18	35	88	0	1	0	1	1	1	1	2	2	3	7
SB 24	11	9	11	31	52	19	20	39	98	1	1	1	3	3	1	1	2	2	3	7
SB 25	15	12	8	35	58	19	20	39	98	1	1	1	3	3	1	1	2	2	3	7
SB 26	16	12	13	41	68	19	20	39	98	1	1	1	3	4	1	1	2	2	3	7
SB 27	13	13	8	34	57	20	20	40	100	1	1	1	3	3	1	1	2	2	3	7
SB 28	17	14	0	31	52	19	20	39	98	1	1	0	2	2	1	1	2	2	3	7
SB 29	13	12	15	40	67	19	20	39	98	1	1	1	3	4	1	1	2	2	3	7
SB 30	14	11	15	40	67	20	20	40	100	1	1	1	3	4	1	1	2	2	3	7
SB 31	18	10	0	28	47	19	20	39	98	1	1	0	2	2	1	1	2	2	3	7
SB 32	6	11	8	25	42	20	19	39	98	0	1	1	2	2	1	1	2	2	3	7
SB 33	15	16	18	49	82	17	18	35	88	1	1	1	3	6	1	1	2	2	3	7
SB 34	15	12	15	42	70	19	20	39	98	1	1	1	3	5	1	1	2	2	3	7
SB 35	15	11	11	37	62	17	18	35	88	1	1	1	3	4	1	1	2	2	3	7
SB 36	15	11	0	26	43	17	18	35	88	1	1	0	2	2	1	1	2	2	3	7
SB 37	13	15	11	39	65	20	20	40	100	1	1	1	3	4	1	1	2	2	3	7
SB 38	10	8	11	29	48	17	18	35	88	1	1	1	3	3	1	1	2	2	3	7
SB 39	13	12	15	40	67	19	20	39	98	1	1	1	3	4	1	1	2	2	3	7
SB 40	9	11	13	33	55	17	18	35	88	1	1	1	3	3	1	1	2	2	3	7
SB 41	17	20	20	57	95	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 42	13	16	19	48	80	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 43	13	19	18	50	83	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 44	15	8	14	37	62	20	20	40	100	1	1	1	3	4	1	1	2	2	3	7
SB 45	7	11	13	31	52	17	18	35	88	0	1	1	2	2	1	1	2	2	3	7
SB 46	15	15	15	45	75	19	20	39	98	1	1	1	3	5	1	1	2	2	3	7
SB 47	18	17	17	52	87	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 48	6	15	15	36	60	17	18	35	88	0	1	1	2	2	1	1	2	2	3	7
SB 49	15	12	18	45	75	20	20	40	100	1	1	1	3	5	1	1	2	2	3	7
SB 50	15	20	20	55	92	20	20	40	100	1	1	1	3	6	1	1	2	2	3	7
SB 51	8	9	13	30	50	20	19	39	98	1	1	1	3	3	1	1	2	2	3	7
SB 52	0	12	16	28	47	17	18	35	88	0	1	1	2	2	1	1	2	2	3	7
SB 53	0	9	12	21	35	17	18	35	88	0	1	1	2	2	1	1	2	2	3	7

Sub. Teacher

Class Coodinator

HoD
Dept. of Mechanical Engg
C.O.E. Pandharpur

SVERI's College of Engineering, Pandharpur

Department of Mechanical Engineering

Course: ernal Combustion Engin | Sem: I | I | Class & Div:S.Y.B.T | AY: 2019 -2020

Subject with Lab Practical and Assignments/T ls with Practice Session

Final ICA Marks

Roll NO.	Name of Student	Attendance		Test				
		Theory	Practise	Assign	UT	LT	Lab Book	PPPE
SB 01	/Deshpande Samruddhi Rajendra	100	100	24	6	2	24	9
SB 02	/Ekatpure PreranaShrirang	96	100	24	6	2	24	9
SB 03	/LaleArati Gajanan	99	100	24	5	2	24	9
SB 04	/Mane Snehal Digambar	99	100	24	5	2	24	9
SB 05	/More Vaishali Dilip	99	100	24	4	2	24	9
SB06	/Sonawane Dhanashree Bharat	99	100	24	6	2	24	9
SB 07	Vidhate Rohit Dattatraya	99	100	24	6	2	24	9
SB 08	Wadekar Saurabh Ganesh	100	100	24	4	2	24	9
SB 09	BankarAdeshGorakh	96	100	22	1	2	20	9
SB 10	Bansode Aniket Annaso	89	100	23	6	2	23	9
SB 11	Bapat Vinayak Vishnu	96	100	24	3	2	23	9
SB 12	Bhosale Hritik Ramesh	93	100	23	3	2	20	9
SB 13	Bhosale Vaibhav Rajendra	99	100	24	5	2	23	9
SB 14	Deshmukh Pratik Pravin	97	100	24	6	2	22	9
SB 15	Dhotre Sourabh Sanjay	73	14	23	2	2	22	9
SB 16	Dixit Manthan Milind	100	100	24	6	2	24	9
SB 17	Gaikwad Abhinay Rajendra	74	93	15	1	2	15	7
SB 18	Gavali Suraj Rajendra	80	29	22	4	2	21	9
SB 19	Waghmode Chetan Machchhindra	93	86	22	1	2	20	9
SB 20	Waghmode Dhondiram Madhu	97	100	24	4	2	23	9
SB 21	Kadam Nilesh Sanjay	92	100	24	6	2	24	9
SB 22	Khote Abhijeet Sunil	99	93	23	5	2	23	9
SB 23	Kulkarni Atharv Makarand	95	93	22	1	2	23	9
SD 24	Londhe Vaibhav Anil	80	64	21	3	2	20	9
SB 25	Madane Avinash Ajinath	93	100	22	3	2	20	9
SB 26	Mali Amol Vijay	93	100	23	4	2	22	9
SD 27	Mashalkar Omkar Basavraj	72	93	21	3	2	22	9
SB 28	Metkari Om Damodar	82	57	22	2	2	20	9
SB 29	Mulani Aman Allauddin	89	86	23	4	2	21	9
SD 30	Nagtilak Harshal Rajendra	99	100	23	4	2	24	9
SB 31	Nanaware Jaydev Dipak	80	100	21	2	2	20	9
SB 32	Nikam Saurabh Sanjay	86	86	24	2	2	22	9
SD 33	Parmar Ridham Girish	84	93	23	6	2	23	9
SB 34	Patil Madan Kalyan	77	93	21	5	2	23	9
SB 35	Patil Santosh Hanamant	97	100	23	4	2	21	9
SB 36	Patil Yogesh Kumar	93	93	23	2	2	22	9
SB 37	Pawar Omkar Santosh	95	100	23	4	2	24	9
SB 38	Pawar Shubham Uttam	64	100	23	3	2	20	9
SB 39	Rai Hrishav Raj	78	93	22	4	2	23	9
SB 40	Rohit DattatryChatage	57	57	23	3	2	22	9
SB 41	Yasar Yusuf Khatik	100	100	24	6	2	24	9
SD 42	Sarak KashilingKalidas	91	100	22	6	2	22	9
SB 43	Saravale Aniket Rajkumar	95	100	23	6	2	24	9
SB 44	Shaikh Aftab Bashir	99	100	24	4	2	23	9
SB 45	Shaikh Salim Husen	92	71	23	2	2	21	9
SB 46	Shinde Dipak Pandurang	100	100	23	5	2	24	9
SB 47	Shinde Nanasaheb Siddheshwar	100	100	24	6	2	24	9
SB 48	Shinde Vishwajit Ashok	91	71	22	2	2	24	9
SB 49	Shitole Dnyaneshawr Ganpat	100	100	23	5	2	23	9
SB 50	Ubale Harshvardhan Sudhir	100	100	23	6	2	24	9
SB 51	Taur Mohit Nagesh	85	100	22	3	2	23	9
SB 52	Kengar Sachin Uttam	85	100	22	2	2	21	9
SB 53	Langote Krishna S.	70	93	23	2	2	21	9

B1							Total After part 1	Part II		Final TW
Assign/Tu	Lab Book	Attend(PS)	UT	PPPE	LT	Oral		Attn	Behv	
3	5	3	6	4	2	2	25			25
3	5	3	6	4	2	2	25	3		24
3	5	3	6	4	2	2	24	1		24
3	5	3	5	4	2	2	24	1		24
3	5	3	5	4	2	2	24	1		24
3	5	3	4	4	2	2	23	1		24
3	5	3	6	4	2	2	25	1		24
3	5	3	6	4	2	2	25	1		24
3	5	3	4	4	2	2	23	3		24
3	4	3	1	4	2	2	19	1	1	21
3	5	3	6	4	2	2	25	-2		23
3	5	3	3	4	2	2	22	1		23
3	4	3	3	4	2	2	21	0		21
3	5	3	5	4	2	2	24	1		24
3	4	3	6	4	2	2	24	1		24
3	4	-1	2	4	2	2	16	-3	2	15
3	5	3	6	4	2	2	25	3		24
2	3	3	1	3	2	2	16	-3	3	16
3	4	-1	4	4	2	2	18	-3	2	17
3	4	1	1	4	2	2	17	0	2	19
3	5	3	4	4	2	2	23	1		24
3	5	3	6	4	2	2	25	0		24
3	5	3	5	4	2	2	24	1		24
3	5	3	1	4	2	2	20	1		21
3	4	-1	3	4	2	2	17	-3		14
3	4	3	3	4	2	2	21	0		21
3	4	3	4	4	2	2	22	0		22
3	4	3	3	4	2	2	21	-3		18
3	4	-1	2	4	2	2	16	-3	2	15
3	4	1	4	4	2	2	20	-2		18
3	5	3	4	4	2	2	23	1		24
3	4	3	2	4	2	2	20	-3	2	19
3	4	1	2	4	2	2	18	-2	2	18
3	5	3	6	4	2	2	25	-3		22
3	5	3	5	4	2	2	24	-3		21
3	4	3	4	4	2	2	22	1		23
3	4	3	2	4	2	2	20	0		20
3	5	3	4	4	2	2	23	1		24
3	4	3	3	4	2	2	21	-3		18
3	5	3	4	4	2	2	23	-3	1	21
3	4	-1	3	4	2	2	17	-3		14
3	5	3	6	4	2	2	25	3		24
3	4	3	6	4	2	2	24	0		24
3	5	3	6	4	2	2	25	1		24
3	5	3	4	4	2	2	23	1		24
3	4	-1	2	4	2	2	16	0	2	18
3	5	3	5	4	2	2	24	3		24
3	5	3	6	4	2	2	25	3		24
3	5	-1	2	4	2	2	17	0	2	19
3	5	3	5	4	2	2	24	3		24
3	5	3	6	4	2	2	25	3		24
3	5	3	3	4	2	2	22	-2		20
3	4	3	2	4	2	2	20	-2		18
3	4	3	2	4	2	2	20	-3		17

Sub. Teacher

Class Coordinator

HoD

HEAD,
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