Criterion 1 – Curricular Aspects

Key Indicator - 1.1 Curricular Planning and Implementation

1.1.1 Institution has the mechanism for well planned curriculum delivery and documentation.

Sr.No.	Documentary Evidences / Sample Documents	Page No.
1	Academic Calendar of DBATU, Lonere	1 - 4
2	Academic Calendar of Institute	5 - 9
3	Sample Time Table	10 - 16
4	Sample Lecture Plan	17 - 26
5	Unit test Details	27 - 99
6	Parents meet Report	100 - 104

Dr. Babasaheb Ambedkar Technological University, Lonere

Faculty of Engineering and Technology

Academic Calendar for A.Y. 2018-19 (Odd Semester)

DBATU/REG/AC/2018-19/ 1375

Date: 19 JUN 2018

Activity	1st Yr. B. Tech	2nd to 4th Yr. B. Tech	2nd Yr. B. Tech Direct admitted	1st Yr. M Tech	2nd Yr. M Tech
Application for affiliation (for colleges) for the AY 2019-20	Aug 1 to Oct 31, 2018				
Admission for 1st Yr. B. Tech & M. Tech (all branches)	As per the dates declared by DTE Maharashtra	--	--	As per the dates declared by DTE Maharashtra	--
Admission for Direct 2nd Yr. B. Tech (all branches)	--	--	As per the dates declared by DTE Maharashtra	--	--
Admission for II Yr. B. Tech (all branches)	--	July 13, 2018@	--	--	--
Admission for III Yr. B. Tech (all branches)	--	July 11, 2018@	--	--	--
Admission for IV Yr. B. Tech (all branches)	--	July 12, 2018@	--	--	--
Admission for II Yr. M. Tech (all branches)	--	--	--	--	July 13, 2018@
Commencement of Classes	August 01, 2018*	July 02, 2018	As per the dates declared by DTE Maharashtra	August 01, 2018*	July 16, 2018
Induction Programme for First Year students	August 01-21, 2018	--	--	--	--
Last date for Enrolment	Sept 15, 2018	--	Sept 15, 2018	Sept 15, 2018	--
Last date for Enrolment with late fees	Sept 29, 2018	--	Sept 29, 2018	Sept 29, 2018	--
Remedial Examinations (B. Tech I yr.& II Yr)	--	July 23-Aug 04, 2018@	--	--	--
First Periodic Test (B. Tech IV Yr.)	--	August 13 - 16, 2018	--	--	--
Mid-Semester Exam (B. Tech: II & III Yr.)	--	Sept 03-08, 2018	Sept 03-08, 2018	--	--
Internal Academic Monitoring	Sept 10-17, 2018				
Last date for submitting Semester Exam forms	Oct 13, 2018	Sept 29, 2018	Sept 29, 2018	Oct 13, 2018	Sept 29, 2018
Last date for submitting Semester Exam forms with late fees	Oct 22, 2018	Oct 06, 2018	Oct 06, 2018	Oct 22, 2018	Oct 06, 2018
Last date for submitting Semester Exam forms with super penalty	Oct 27, 2018	Oct 13, 2018	Oct 13, 2018	Oct 27, 2018	Oct 13, 2018

Second Periodic Test (B. Tech IV Yr.), Mid-Semester Exam (B. Tech I Yr. M. Tech I Yr.)	Oct 08-13, 2018	Oct 08-13, 2018	--	Oct 08-13, 2018	--
Last date for submitting Mid-Semester/ Test Exam marks	Oct 23, 2018	Oct 23, 2018	Sept 18, 2018	Oct 23, 2018	--
External Academic Monitoring	Oct 23-27, 2018				
Last date of submitting internal assessment marks	Nov 30, 2018	Oct 26, 2018	Oct 26, 2018	Nov 30, 2018	Oct 26, 2018
End of Classes	Nov 30, 2018	Oct 26, 2018	Oct 26, 2018	Nov 30, 2018	--
Practical Exam (1st yr and 2nd Yr B. Tech) Submission of Lab course marks for III and IV Yr. B. Tech Conduct of Project stage-I exam and seminar exams for B. Tech and M Tech	Dec 03-08, 2018	Oct 29 - Nov 03, 2018	Oct 29 - Nov 03, 2018	Dec 03-08, 2018	Oct 29 - Nov 03, 2018
Convocation	Nov 17, 2018 /Jan 05, 2019				
Semester Examinations	Dec 10-22, 2017	Nov 12- Dec 14, 2018	Nov 12- Dec 14, 2018	Dec 10-22, 2017	--
Vacation to Faculty & Technical Staff	Dec 12-31, 2018**				
Commencement of Classes for the Next Semester	Jan 01, 2019	Jan 01, 2019	Jan 01, 2019	Jan 01, 2019	--
Declaration of semester examination Results	Feb 05, 2019	Jan 28, 2019	Jan28, 2019	Feb 05, 2019	--

* Dates may vary as per the schedule declared by DTE Maharashtra.
** Faculty and staff members eligible for vacation should proceed to vacation after due permission from the concerned reporting officer.
@ No remedial exam for 3rd year and 4th year B. Tech.
# Respective classes will remain suspended during the admission schedule.

Note: 1. All the Head of the institutes/departments have to take measures to conduct the additional instructional days for academic activities if needed.
2. All practical & term work shall be completed with continuous assessment as per curriculum till the end of semester.

(Dr. Sunil S. Bhamare)
Registrar

Copy submitted to: Hon'ble Vice-Chancellor (for information)

Copy to:
1. All Heads of the Departments & Sections, Dr BATU, Lonere
2. Principal/Director, All affiliated Colleges
3. Controller of Examinations, Dr BATU, Lonere
4. Regional Centers/Sub-Centers of the University
5. Dr. S. R. Sutar, University Timetable Coordinator, Lonere
6. Website 'www.dbatu.ac.in'

Dr. Babasaheb Ambedkar Technological University, Lonere

Faculty of Engineering and Technology

Academic Calendar for A.Y. 2018-19 (Even Semester)

DBATU/REG/AC/2018-19/3088

Date: 21 DEC 2018

Activity	B. Tech.	1st Yr. M. Tech.	2nd Yr. M Tech
Commencement of Classes	Jan 01, 2019	Jan 07, 2019	--
Declaration of Results (Odd Semester)	Feb 05, 2019	March 01, 2019	--
First Periodic Test (B. Tech. IV Yr.)	Feb 6-8, 2019	--	--
Remedial Examination (B. Tech. I, II & III Yr.)	Feb 27- March 09, 2019	--	--
Mid-Semester Exam (B. Tech. I, II & III Yr.)	March 11-16, 2019		--
Internal Academic Monitoring	March 25-30, 2019		
Last date for submitting Semester Exam forms (Regular)	Jan 31, 2019		
Last date for submitting Semester Exam forms with late fees	Feb 9, 2019		
Last date for submitting Semester Exam forms with super penalty	Feb 22, 2019		
Second Periodic Test (B. Tech. IV Yr.)	March 14-16, 2019	--	--
Last date for submitting Mid-Semester/ Test Exam marks	March 26, 2019		--
External Academic Monitoring	April 01-05, 2019		
Last date of submitting internal assessment marks	April 26, 2019		--
End of Classes	April 26, 2019		--
Practical Exam (B. Tech. I, II & III Yr. and M. Tech. I Yr.) Submission of Lab course marks B. Tech. IV Yr. Conduct of Project stage-II Exam B. Tech. IV Yr.	April 29- May 04, 2019		--
Semester Examination	May 06-31, 2019		--
Last date for submission of Thesis	--		June 15, 2019
Project stage-II Exam	--	--	July 15-31, 2019
Vacation to Faculty & Technical Staff *	May 17- June 25, 2019		
Commencement of Classes for the Next Semester	July 01, 2019**		
Declaration of Semester Exam Results	July 15, 2019		August 31, 2019

* Faculty and staff members eligible for vacation should proceed to vacation after due permission from the concerned reporting officer.

** Commencement of classes for 1st Yr. B. Tech and M. Tech. will be from August 01, 2019 or as per the schedule declared by DTE Maharashtra.

Note: 1. All the Head of the institutes/departments have to take measures to conduct the additional instructional days for academic activities, if required.

2. All practical & term work shall be completed with continuous assessment as per curriculum till the end of semester.

(Dr. Sunil S. Bhamare)
Registrar

REGISTRAR
Dr. Babasaheb Ambedkar Technological University
Lonere-402 103

Copy submitted to: Hon'ble Vice-Chancellor (for information)

Copy to:

1. All Heads of the Departments & Sections, Dr BATU, Lonere
2. Principal/Director, All affiliated Colleges
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5. Dr. S. R. Sutar, University Timetable Coordinator, Lonere
6. Website 'www.dbatu.ac.in'

Karmaveer Bhaurao Patil College of Engineering, Satara
Academic Calendar 2018-19

Date	Activity/ Particulars	Remark
Monday, June 18, 2018	Commencement of Semester I	
Monday, June 18, 2018	Conduct of Bridge Classes,Orientation Program for Second Year, Third Year and Final Year	
Tuesday, June 19, 2018	Conduct of Bridge Classes,Orientation Program for Second Year, Third Year and Final Year	
Wednesday, June 20, 2018	Conduct of Bridge Classes,Orientation Program for Second Year, Third Year and Final Year	
Saturday, June 23, 2018	Curricular, Cocurricular, Extra Curricular Activity,	
Saturday, June 30, 2018	Curricular, Cocurricular, Extra Curricular Activity	
Monday, July 02, 2018	Commencement of Classes Second Year B. Tech.	
Saturday, July 14, 2018	Curricular, Cocurricular, Extra Curricular Activity, Mentor-Mentee Meeting	
23/07/2018 to 04/08/2018	Remedial Examination 1st Year B.Tech.	
Saturday, July 28, 2018	Seminar on the Project topics of Final Year B.E/B.Tech and Second Year M.Tech	
Saturday, July 28, 2018	Curricular, Cocurricular, Extra Curricular Activity, Mentor-Mentee Meeting	
Tuesday, July 31, 2018	Poject Synopsis for Major Project / Abstact submission for mini project, UG and PG	
Tuesday, July 31, 2018	Student feedback on teaching learning	
Tuesday, July 31, 2018	Monthly progress report submission: Monthly progress report submission: Attendance, Syllabus completion / laboratory completion, mentoring activity, Guest lecture, Remedial activity, Cocurricular/Extracurricular: Expert Lectures, Student Club Activity, Industrial Visit,Project review seminars, Mentorship actiivity	
Friday, August 03, 2018	Academic Review by Head of the department and Dean academic: Syllabus and Practical Completion, Project completion etc.	

Wednesday, August 01, 2018	Commencement of FY B.Tech. Classes	
01/08/2018 to 03/08/2018	Conduct of indcution/Orientation, foundation and Bridge Classes for First year/Lateral Admitted Students	
06/08/2018 to 07/08/2018	Conduct of indcution/Orientation, foundation and Bridge Classes for First year/Lateral Admitted Students	
09/08/2018 to 11/08/2018	UNIT TEST I	
Wednesday, August 15, 2018	**Independence Day**	
Thursday, August 16, 2018	GATE Coaching Commencement	
Friday, August 17, 2018	**Parsi New Year**	
Wednesday, August 22, 2018	**Bakri-Id**	
Saturday, August 25, 2018	Parrent Meeting	
Saturday, August 25, 2018	Curricular, Cocurricular and Extra Curricular Activity.	
Friday, August 31, 2018	Student feedback on teaching learning	
Friday, August 31, 2018	Monthly progress report submission by head of the department: Monthly progress report includes Attendance, Syllabus completion / laboratory completion, Project progress report, mentoring activity, Guest lecture, Remedial activity, Curricular/Cocurricular/Extracurricular: Expert Lectures, Student Club Activity, Industrial Visit, Project review seminars, Mentorship activity, Personal Counselling etc.	
Friday, August 31, 2018	Academic Review by Head of the department and Dean academic: Syllabus and Practical Completion etc.	
03/09/2018 to 08/09/2018	**Mid Term Test of DBATU B.Tech. II Year**	
Thursday, September 13, 2018	**Ganesh Chaturthi/Vinayaka Chaturthi**	
Thursday, September 20, 2018	**Muharram/Ashura**	
Friday, September 21, 2018	Final Year Project Phase I seminars/ Review/Demonstration	
Monday, September 24, 2018	Internal Academic Audit	
27/09/2018 to 29/09/2018	UNIT Test II	
Saturday, September 29, 2018	Monthly progress report submission by head of the department	
Saturday, September 29, 2018	Academic Review by Head of the department and Dean Academic: Syllabus and Practical Completion etc.	
Saturday, September 29, 2018	Student Feedback on Curriculum	
Tuesday, October 02, 2018	**Mahatma Gandhi Jayanti**	

08/10/18 to13/10/18	Mid-Term Test FY B.Tech and FY M.Tech	
Friday, October 05, 2018	Student Feedback on teaching learning, Curricular, Cocurricular, Extra Curricular Activity, Mentor-Mentee Meeting	
Monday, October 08, 2018	Semester I Lecture/Practical End	
Friday, October 12, 2018	Semester I Progress/ assessment report submission by head of the department	
Friday, October 12, 2018	Parent Meeting	
Saturday, October 13, 2018	External Academic Audit	
Monday, October 15, 2018	Submission of the course file	
15/10/18 to 02/11/2018	Practical/Oral Examinations (Tentative)	
Monday, November 05, 2018	Commencement of Theory Examinations (Tentative)	
Thursday, October 18, 2018	**Dussehra**	
Friday, November 02, 2018	Subject distribution by HOD of Semester II	
Thursday, November 08, 2018	**Diwali**	
Wednesday, November 21, 2018	**Id-e- Milad**	
Friday, November 23, 2018	**Guru Nanak Jayanti**	
Saturday, November 24, 2018	Semester I End	
Thursday, December 06, 2018	Display of the Lecture Plan, term work evaluation scheme, laboratory plan	
Friday, December 07, 2018	Publication of the Lecture notes, handouts PPT on the LMS website and distribution among the students	
Monday, December 10, 2018	Commencement of Instruction Semester II	
Saturday, December 22, 2018	Final Year Project Review: Seminars, Demonstration	
24/12/2018 to 29/12/2018	Sports Week	
Tuesday, December 25, 2018	**Christmas**	
Saturday, December 29, 2018	Curricular, Cocurricular and Extra Curricular Activity.	
Saturday, December 29, 2018	Monthly progress report submission by HOD: Monthly progress report submission: Attendance, Syllabus completion / laboratory completion, Project progress report, mentoring activity, Guest lecture, Remedial activity, Curricular/Cocurricular/Extracurricular: Expert Lectures, Student Club Activity, Industrial Visit, Project review seminars, Mentorship activity, Personal Counselling etc.	

Sunday, January 06, 2019	**Alumni Meet**	
Friday, January 04, 2019	Academic Review by Head of the department and Dean academic: Syllabus and Practical Completion, Project completion etc.	
Saturday, January 12, 2019	Curricular, Cocurricular, Extra Curricular Activity, Mentor-Mentee Meeting	
Saturday, January 26, 2019	**Republic Day**	
Thursday, January 31, 2019	Monthly progress report submission by head of the department	
Thursday, January 31, 2019	Student feedback on teaching learning	
04/02/2019 to 06/02/2019	UNIT TEST I	
Saturday, February 09, 2019	Curricular, Cocurricular and Extra Curricular Activity.	
Saturday, February 09, 2019	Parent Meeting	
Tuesday, February 19, 2019	**Shiv Jayanti**	
Saturday, February 23, 2019	Curricular, Co-curricular and Extra Curricular Activity.	
Friday, March 01, 2019	Academic Review by Head of the department and Dean academic: Syllabus and Practical Completion, Project completion etc.	
Friday, March 01, 2019	Student feedback on teaching learning	
Friday, March 01, 2019	Monthly progress report submission by head of the department	
01/03/2019 to 05/03/2019	**Mid Term Tests B.Tech 1st Yr and 2nd Yr, DBATU (Tentative)**	
Monday, March 04, 2019	**Mahashivratri**	
Sunday, March 17, 2019	National Conference - QUEST 18	
Monday, March 18, 2019	Departmental Technical Competitions/Events	
Tuesday, March 19, 2019	Karmaveer Fest and Traditional Day	
Wednesday, March 20, 2019	Cultural activities	
Thursday, March 21, 2019	**Holi**	
Monday, March 25, 2019	Internal academic audit	
26/03/2019 to 28/03/2019	UNIT TEST II	
Saturday, March 30, 2019	Students Feedback on curriculum, Mentor-Mentee Meeting, Academic Review by Head of the department and Dean academic: Syllabus and Practical Completion, Project completion etc.	
Saturday, March 30, 2019	Internal academic audit	
Saturday, March 30, 2019	Parent Meeting	
Friday, April 05, 2019	Semester II Progress report submission by HOD	
Friday, April 05, 2019	Student feedback on teaching learning	

Saturday, April 06, 2019	**Gudi Padawa**	
Monday, April 08, 2019	Semester II Lecture/Practical End	
09/04/2019 to 26/04/2019	Practical/Oral Examinations (Tentative)	
Saturday, April 13, 2019	Submission of the course file	
Sunday, April 14, 2019	**Dr. Babasaheb Ambedkar Jayanti**	
Sunday, April 14, 2019	**Ram Navami**	
Tuesday, April 16, 2019	External Academic Audit	
Wednesday, April 17, 2019	**Mahavir Jayanti**	
Friday, April 19, 2019	**Good Friday**	
Thursday, April 25, 2019	Self Appraisal submission faculty and staff	
Friday, April 26, 2019	Subject distribution of Semester I by HOD	
Wednesday, May 01, 2019	**Maharashtra Day**	
Monday, May 06, 2019	Commencement of Theory Examinations (Tentative)	
Saturday, May 18, 2019	Semester II End	
Sunday, May 19, 2019	**Buddha Purnima**	

Dean Academics,
Karmaveer Bhaurao Patil College of Engineering, Satara

K.B.P. College of Engineering EN-6270 Satara

Principal
Karmaveer Bhaurao Patil College of Engineering, Satara

Department of Mechanical Engineering

Class: S.Y. BTech **Time Table Academic Year (20[illegible])** **Semester-I**

Day/Time	Class	9.30-10.30	10.30-11.30	11.30-12.30	12.30-1.15	1.15-2.15	2.15-3.15	3.15 - 3.30	3.30-4.30	4.30-5.30
MON	S.Y. S-153	MIII/SRB/ S153	BHR/ABP/ S153	FM/PPP/S153	LUNCH BREAK	MSM/HAM/S153	MDR&CAD/AMS/ S152	SHORT BREAK	FM(T)(A)/ PPP/S-152 THERMO(T)(B)/ASP/S-118 META(T)(C)/HAM/S-135 MIII(T)(D)/SRB/S-153	FM(T)(B)/PPP/S-152 THERMO(T)(A)/ASP/S-118 META(T)(D)/HAM/S-135 MIII(T)(C)/SRB/S-153
TUE	S.Y. S-153	FM/PPP/S153	THERMO/ASP/ S153	PS/PPP/ S153		FM(T)(C)/PPP/S-152 THERMO(T)(D)/ASP/S-118 META(T)(A)/HAM/S-135 MIII(T)(B)/SRB/S-153	FM(T)(D)/ PPP/S-152 THERMO(T)(C)/ASP/S-118 META(T)(B)/HAM/ S-135 MIII(T)(A)/SRB/S-153		MDR&CAD(A)/RKS/S153, MDR&CAD(C)/AMS/S153, FM(D)/ASP/F-87, META(B)/HAM/S-135	
WED	S.Y. S-153	MDR&CAD/AMS/ S153	MIII/SRB/S153	THERMO/ASP/ S153		FM/PPP/S153	BHR/ABP/S153		MDR&CAD(A)/RKS/S, MDR&CAD(C)/AMS/S, FM(B)/ASP/ F-87, META(D)/HAM/ S-135	
THUR	S.Y. S-153	MSM/HAM/S153	MDR&CAD/ AMS/S153	THERMO/ASP/ S153		MIII/SRB/S153	MSM/HAM/S153		MDR&CAD(B)/SMJ/S153, MDR&CAD(D)/AMS/S153, FM(A)/ ASP/ F-87, META(C)/HAM/ S-135	
FRI	S.Y. S-153	THERMO/ ASP/ S153	FM/PPP/S153	MSM/HAM/S153		PS/PPP/ S153	MIII/SRB/S153		MDR&CAD(B)/SMJ/S153, MDR&CAD(D)/AMS/S153, FM(C)/ ASP/ F-87 ,META(A)/HAM/ S-135	
SAT	S.Y.									

S.Y.

Engineering Mathematics (M-III) – Prof. Mrs. Ballal S. R. (SRB)

Thermodynamics (THERMO) – Prof. Pujari A. S. (ASP)

Material Science & Metallurgy (MSM) – Prof. Dr. Mandave H. A. (HAM)

Fluid Mechanics (FM) – Prof. Ms. Patil P.P. (PPP) /Prof. Pujari A. S. (ASP)

Basic Human Rights – Prof. Pisal A. B. (ABP)

Machine drawing& CAD (MDR & CAD) – Prof. Shaikh A. M. (AMS)

***A Batch** - Prof.Ms. Shivdas R. K. (RKS)

***B Batch** – Prof. Mrs. S. M. Jadhav (SMJ)

***C & D Batch** -. Prof. Shaikh A. M. (AMS)

Prof.Skill (PS) -. Prof. Ms. Patil P.P. (PPP)

Time Table Incharge **HOD Mechanical Dept.** **Principal**

Department of Mechanical Engineering

Class: T.E. Time Table Academic Year (2018-19) **Semester-I**

Day/Time	Class	9.30-10.30	10.30-11.30	11.30-12.30	12.30-1.15	1.15-2.15	2.15-3.15	3.15 - 3.30	3.30-4.30	4.30-5.30
MON	T.E S-152	ME/DAG/S152	TOM-II/ ABK/S152	HMT/RLD/S152	LUNCH BREAK	CE/SRM/S152	MD I/SMJ/S152	SHORT BREAK	HMT(A)/RLD/F-85, TOM-II (C)/ABK/S-126 WP(D)/G-35, ME(B)/DAG/F-87	
TUE	T.E S-152	HMT/RLD/S152	WP(C)/G-35, CAD(B)/ABK/S-144, HMT(D)/RLD/F-85, CE(A)/SRM/S-117,			ME/DAG/S152	TOM-II/ABK/S152		PS/PLJ/ S152	MD I (T)/SMJ (A& B)/S-152 MINIPROJECT (C & D)
WED	T.E S-153	TOM- II/ABK/S152	CE(D)/SRM/S-117 CAD(C)/ABK/S-144 WP(B)/G-35, CAD(A)/PPP/S-144,			MD I/SMJ/S152	CE/SRM/S152		CAD(D)/PPP/S-144,TOM-II (B)/ABK/S-126 WP(A)/G-35, ME(C)/DAG/F-87	
THUR	T.E S-152	ME/DAG/S152	HMT/RLD/S152	MD I/SMJ/S152		CE/SRM/S152	MINIPRO (A& B)/ MD I(T)/SMJ(C&D)/S-152		HMT(C)/RLD /F-85, ME(A)/DAG/F-87 CE(B)/SRM/S-117, TOM-II (D)/ABK/S-126	
FRI	T.E S-152	MD I/SMJ/S152	ME/DAG/S152	TOM-II/ABK/S152		HMT/RLD/S152	CE/SRM/S152		TOM-II (A)/ABK/S-126, CE(C)/SRM/S-117 HMT(B)/ABP/F-85, ME(D)/DAG/F-87	
SAT	T.E									

TE

Control Engineering (CE) – Prof. Mahajan S. R.(SRM)

Theory of Machine II (TOM-II) – Prof. Kharage A. B. (ABK)

Heat & Mass Transfer (HMT) – Prof. Devendra R. L. (RLD)/ Prof. Pisal A. B. (ABP)

Machine Design-I (MD-I) – Prof. Mrs. Jadhav S. M. (SMJ)

Manufacturing Engg.(ME) - Prof. Ghatage D. A. (DAG)

CAD/CAM LAB – Prof. Ms. Patil P.P. (PPP) / Prof. Kharage A. B. (ABK)

*A & D Batch– Prof. Ms. Patil P.P. (PPP)

*B & C Batch– Prof. Kharage A. B. (ABK)

Prof.Skill (PS) -. Prof. Jadhav P. L. (PLJ)

Time Table Incharge **HOD Mechanical Dept.** **Principal**

Department of Mechanical Engineering

Class: B.E. Time Table Academic Year (2018-19) **Semester-I**

Day/Time	Class	9.30-10.30	10.30-11.30	11.30-12.30	12.30 -1.15	1.15-2.15	2.15-3.15	3.15 - 3.30	3.30-4.30	4.30-5.30
MON	B.E S-150	FEA/SSP/S150	AUTO/NUD/S150	IPD/RKS/S150	LUNCH BREAK	MSD/MYS/S150	RAC/PLJ/S150	SHORT BREAK	PROJECT	
TUE	B.E S-153	AUTO/NUD/S150	MSD/MYS/S150	IPD/RKS/S150		MSD(D)/NUD/S-150, RAC(C)/ABP/S-151 IPD(A)/RKS/S-142, FEA(B)/SSP/S-143			FEA/SSP /S152	VTR
WED	B.E S-150	RAC/PLJ/S150	MSD/MYS/S150	FEA/SSP/S150		IPD/RKS/S150	AUTO/NUD/S150		PROJECT	
THUR	B.E S-150	MSD/MYS/S150	MSD(B)/MYS/S-150, FEA(A)/SSP/S143 AUTO(D)/NUD/S-112, IPD(C)/RKS/S-142			RAC/PLJ/S150	AUTO/NUD/S150		RAC(D)/ABP/S-151, IPD(B)/RKS/S-142 MSD(C)/MYS/S-150, AUTO(A)/NUD/S-112	
FRI	B.E S-150	FEA/SSP/S150	FEA(C)/SSP/S-143, AUTO(B)/NUD/S112 IPD(D)/RKS/S-142, RAC(A)/PLJ/S-151			RAC/PLJ/S150	IPD/RKS/S150		MSD(A)/MYS/S-150,RAC(B)/PLJ/S-151 AUTO(C)/NUD/S-112,FEA(D)/SSP/S-143	
SAT	B.E									

BE

Mechanical System Design (MSD) - Prof. Mrs. Shinde M. Y. (MYS)

Finite Element Analysis (FEA) – Prof. Patil S. S. (SSP)

Refrigeration & Air Conditioning (RAC) – Prof. Jadhav P. L. (PLJ)

Automobile Engineering (AUTO) – Prof. N. U. Dhumal (NUD)

Industrial Product Design (IPD) - Prof.Ms. Shivdas R. K. (RKS)

Time Table Incharge **HOD Mechanical Dept.** **Principal**

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

Department of Mechanical Engineering

Time Table Academic Year (2018-19) **Semester-I**

Faculty- Prof. Mrs. Shinde M. Y.

Day/Time	Class	9.30-10.30	10.30-11.30	11.30-12.30	12.30-1.15	1.15-2.15	2.15-3.15	3.15-3.30	3.30-4.30	4.30-5.30
MON	S.E S-153									
	M.Tech S-141								MEL /PG LAB	
	B.E S-150					MSD/S150				
TUE	S.E S-153				LUNCH			SHORT		
	M.Tech S-141									
	B.E S-153		MSD/S150							
WED	S.E S-152									
	M.Tech S-141									
	B.E S-150		MSD/S150							
THUR	S.E S-153				BREAK			BREAK		
	M.Tech S-141									
	B.E S-150	MSD/S150	MSD (B)/S150						MSD (C)/ S150	
FRI	S.E S-153									
	M.Tech S-141	PROJECT(M.Tech)				MEL /PG LAB				
	B.E S-150								MSD (A)/ S150	

Lecture= 04 Practical/Tutorial = 06+ 03 (M.Tech) Project/Mini Project =03(M.Tech) Total load= 16

Time Table Incharge **Head of Department**

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

Academic Year: 2018-19 Semester-II

Name of the Program: Computer Science and Engineering **Program Code: 627005**

Name of the Course: Elective-I(Object Oriented Programming using C++) **Course Code: BTCOE404(A)**

Class: Second Year

Lecture Plan

Lect. No.	Content	Lecture Objectives	Lecture Outcomes	Date		Teaching aid/ Pedagogy	Mapping to COs,Pos & PSOs	Remark (Gap)
				Planned	Actual			
1	Introduction of Subject	1.To introduce Students to the basic concepts of language C++ and the ability to write simple correct programs.	Student will get the overview of the subject	1/1/2019	7/1/19	Syllabus		
2	**Unit-I Introduction to Object Oriented Programming and Objects and Classes**: Need of object oriented programming,	1.understand the difference between procedure oriented and object oriented approach	Students will be able to write a simple correct program on the mentioned topics	7/1/2019	7/1/19	Chalk-board ,PPT	CO5,1	
3	The object oriented approach, Characteristics of object oriented languages.	1.understand the concept of function overloading 2.understand the concept of constructors and its types 3. Understand the concept of destructor.	Students will be able to write and debug the program on the mentioned topics	8/1/2019	8/1/19	Chalk-board ,PPT	CO5,1	
4	A class, Objects as data types	Understand the concept of classes and its relation with the objects	Students will be able to write a simple program on the mentioned topics and also inherit it properly	14/1/2019	9/1/19	Chalk-board ,PPT	CO5,1	
5	Constructors, Objects as	1.understand the concept of constructors & static member variables and static member functions	Students will be able to write program and analyze it on the mentioned topics	21/1/2019	14/1/19	Chalk-board ,PPT	CO5,1	

6	function arguments,	1. Thoroughly understand the concept of nested classes and object passing as argument .	Students will be able to use the mentioned concept for developrnent of simple application	22/1/2019	28/1/19	Chalk-board ,PPT	CO5,1	
7	Returning objects	1.understand the concept of objects pointers to object	Students will be able to use the pointers for writing the simple correct program	28/1/2019	28/1/19	Chalk-board ,PPT	CO2,1,5	
8	**Unit 2 : Operator Overloading and Inheritance:** Overloading unary and binary operators .	1.understand the derived type pointers and class members 2. To understand the function of operator overloading 3.To understand the various operators like new ,delete and special operators	Students will be able to use to write the simple correct program	29/1/2019	29/1/19	Chalk-board ,PPT	CO2,1,5	
9	Data conversion.	1. Understand the data Conversion techniques	Students will be able to use the operators for writing the simple correct program	4/2/2019	5/2/19	Chalk-board ,PPT	CO2,1,5	
10	Derived and base class,	1.concept of inheritance and its types needs to be understand	Students will be able to write a simple correct program on the mentioned topics	5/2/2019	5/2/19	Chalk-board ,PPT	CO2,1,5	
11	Public and private inheritance,	1.concept of inheritance and its types needs to be understand	Students will be able to write a simple correct program on the mentioned topics	11/2/2019	12/2/19	Chalk-board ,PPT	CO2,1,5	
12	Levels of inheritance,	1.concept of inheritance and its types needs to be understand	Students will be able to write a simple correct program on the mentioned topics	20/2/2019	12/2/19	Chalk-board ,PPT	CO2,1,5	
13	Multiple inheritance Examples	.concept of inheritance and its types needs to be understand	Students will be able to write a simple correct program on the mentioned topics	26/2/2019	20/2/19	Chalk-board ,PPT	CO3,5	
14	**Unit 3 : Polymorphism:** Virtual functions	To understand the virtual function	Students will be able to write a simple correct	27/2/2019	20/2/19	Chalk-board	CO3,5	

			program on the mentioned topics			,PPT		
15	, Dynamic binding,	1. understand the dynamic allocation operation correctly	Students will be able to write a simple correct program on the mentioned topics	2/2/2019	26/2/19	Chalk-board ,PPT	CO3,5	
16	Abstract classes	1.To understand the abstract classes	Students will be able to write program on the mentioned topics	5/1/2019	6/3.	Chalk-board ,PPT	CO3,5	
17	pure virtual functions, .	1. To understand the pure virtual function 2.To understand the file pointers.	Students will be able to write a simple correct program on the mentioned topics	6/01/2019	2/4	Chalk-board ,PPT	CO3,5	
18	Friend functions,	1.To understand the Friend function	Students will be able to write a simple correct program on the mentioned topics	7/3/2019	3/4	Chalk-board ,PPT	CO3,5	
19	this pointer	To understand the this pointer	Students will be able to write a simple correct program on the mentioned topics	9/3/2019	3/4.	Chalk-board ,PPT	CO4,5	
20	**Unit 4 : Streams and Files**: Streams, Stream output and input,	1. .To understand the concept of File stream and multiple objects 2. To understand the generic function and classes	Students will be able to write program on the mentioned topics	26/03/2019	3/4	Chalk-board ,PPT	CO4,5	
21	Stream manipulators,	1.To understand the functions and the experts keywords	Students will be able to write program on the mentioned topics	27/03/2019	4/4	Chalk-board ,PPT	CO4,5	
22	Files and streams,	To understand the concept of File stream and multiple objects	Students will be able to write program on the mentioned topics	30/03/2019	4/4	Chalk-board ,PPT	CO4,5	
23	Creating sequential and random files	To understand the concept of File stream and multiple objects	Students will be able to write program on the mentioned topics	3/04/2019	8/4	Chalk-board ,PPT	CO4,5	
24	Reading sequential and random files	To understand the concept of File stream	Students will be able to write program on the	3/04/2019	8/4	Chalk-board	CO4,5	

		and multiple objects	mentioned topics			,PPT		
25	Updating sequential and random files	1.understand exception handling options	Students will be able to write a simple correct program on the mentioned topics	4/04/2019	9/4	Chalk-board ,PPT	CO4,5	
26	**Unit 5 :Templates and Exception Handling:** Function templates, .	1.understand the concept of templates	Students will be able to write a simple correct program on the mentioned topics	4/04/2019	09/4	Chalk-board ,PPT	CO4,5	
27	Overloading function templates,	1.understand the concept of templates	Students will be able to write a simple correct program on the mentioned topics	9/04/2019	10/4	Chalk-board ,PPT	CO4,5	
28	Class templates,	1.understand the concept of templates	Students will be able to write a simple correct program on the mentioned topics	9/04/2019	10/4	Chalk-board ,PPT	CO4,5	
29	Exception handling overview,	1.understand the concept of Exception handling	Students will be able to write a simple correct program on the mentioned topics	10/04/2019	10/4	Chalk-board ,PPT	CO4,5	
30	Need of exceptions, An exception example,	1.understand the concept of Exception handling	Students will be able to write a simple correct program on the mentioned topics	10/04/2019	11/4	Chalk-board ,PPT	CO4,5	
31	Multiple exceptions, Exception specifications	1.understand the concept of Exception handling	Students will be able to write a simple correct program on the mentioned topics	16/04/2019	11/4	Chalk-board ,PPT	CO4,5	
32	**Unit 6 :Standard Template Library (STL):** Introduction to STL-Containers	1.To understand the STL containers and iterators	Students will be able to write a simple correct program on the mentioned topics	16/04/2019		Chalk-board ,PPT	CO4,5	
33	, Iterators	1.To understand the STL containers and iterators	Students will be able to use the mentioned concept for developrnent of simple application	20/04/2019		Chalk-board ,PPT	CO4,5	

34	, Algorithms,	1.To understand the STL containers and iterators	Students will be able to use the mentioned concept for development of simple application	20/04/2019		Chalk-board ,PPT	CO4,5	
35	Sequence containers,.	1.To understand the STL containers and iterators	Students will be able to use the mentioned concept for development of simple application	23/04/2019		Chalk-board ,PPT	CO4,5	
36	Associative containers,	1.To understand the STL containers and iterators	Students will be able to use the mentioned concept for development of simple application	23/04/2019		Chalk-board ,PPT	CO4,5	
37	Container adapters	1.To understand the STL containers and iterators	Students will be able to use the mentioned concept for development of simple application	24/04/2019		Chalk-board ,PPT	CO4,5	

Signature of the Course Teacher /coordinator

Sign of the HOD

RAYAT SHIKSHAN SANSTHA'S

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MECHANICAL ENGINEERING DEPARTMENT

UNIT TEST I

TIMETABLE (2018-19)

DAY & DATE	TIME	T.E. MECHANICAL	B.E. MECHANICAL
FRIDAY 10/08/2018	10:00AM - 11:30AM	CE	RAC
	12:00PM- 1:30PM	TOM II	MSD
	2:00 PM- 3:30 PM	HMT	FEA
SATURDAY 11/08/2018	10:00AM - 11:30AM	MD I	AE
	12:00PM- 1:30PM	ME	IPD
	FEEDBACK 1:30 PM ONWARDS		

UNIT TEST CO-ORDINATOR

H.O.D

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MECHANICAL ENGINEERING DEPARTMENT

UNIT TEST I (2018-19)

SUPERVISION CHART

SR. NO.	DATE	TIME	BLOCK	SUPERVISOR NAME	SIGN.
1	10/08/2018	10:00 to 11:30 am	T.E. CLASSROOM	PROF.GHATGE D.A.	
2	10/08/2018	10:00 to 11:30 am	B.E. CLASSROOM	PROF.JADHAV P. L.	
3	10/08/2018	10:00 to 11:30 am	THERMO LAB.	PROF.PISAL A. B.	
4	10/08/2018	2:00 to 3:30 pm	T.E. CLASSROOM	PROF.PATIL S.S.	
5	10/08/2018	12:00 to 1:30 pm	B.E. CLASSROOM	PROF. MS.SHIVDAS R. K.	
	11/08/2018	10:00 to 11:30 am	THERMO LAB.		
6	10/08/2018	12:00 to 1:30 pm	T.E. CLASSROOM	PROF.DEVENDRA R. L.	
	11/08/2018	12:00 to 1:30 pm	THERMO LAB.		
7	10/08/2018	12:00 to 1:30 pm	THERMO LAB.	PROF.DHUMAL N. U.	
8	10/08/2018	2:00 to 3:30 pm	THERMO LAB.	MR.CHAVAN U. S.	
9	10/08/2018	2:00 to 3:30 pm	B.E. CLASSROOM	PROF. MS.PATIL P. P.	
10	11/08/2018	10:00 to 11:30 am	T.E. CLASSROOM	MR.JADHAV M. M.	
11	11/08/2018	10:00 to 11:30 am	B.E. CLASSROOM	PROF.PUJARI A. S.	
12	11/08/2018	12:00 to 1:30 pm	T.E. CLASSROOM	PROF.MAHAJAN S. R.	
13	11/08/2018	12:00 to 1:30 pm	B.E. CLASSROOM	PROF. MRS.JADHAV S. M.	

UNIT TEST I CO-ORDINATOR

H.O.D

KBP COLLEGE OF ENGINEERING,SATARA

MECHANICAL DEPARTMENT

UNIT TEST I (2018-19)

SEATING ARRANGEMENT FOR STUDENTS

BLOCK NAME: TE CLASSROOM (S-152)		
BENCH NO.	STUDENT	
	TE ROLL NO.	BE ROLL NO.
1	1	1
2	2	2
3	3	3
4	4	4
[illegible]	5	5
[illegible]	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
[illegible]	20	20
[illegible]	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33

BLOCK NAME: BE CLASSROOM (S-150)		
BENCH NO.	STUDENT	
	TE ROLL NO.	BE ROLL NO.
1	34	34
2	35	35
3	36	36
4	37	37
5	38	38
6	39	39
7	40	40
8	41	41
9	42	42
10	43	43
11	44	44
12	45	45
13	46	46
14	47	47
15	48	48
16	49	49
17	50	50
18	51	51
19	52	52
20	53	53
21	54	54
22	55	55
23	56	56
24	57	57
25	58	58
26	59	59
27	60	60
28	61	61
29	62	62
30	63	63

BLOCK NAME: REFRIGERATION & AIR CONDITIONING LAB		
BENCH NO.	STUDENT	
	TE ROLL NO.	BE ROLL NO.
1	64	64
2	65	65
3	66	66
4	67	67
5	68	68
6	69	69
7	70	70
8	71	71
9	72	72
10	73	73

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DEPARTMENT OF MECHANICAL

T.E. Unit Test I (2018-19)

ROLL NO.	UID	NAME OF STUDENT	CE	TOM II	HMT	MD I	ME
			OUT OF (50)	OUT OF (50)	OUT OF (50)	OUT OF (50)	OUT OF (50)
1	ME2016	ANBHULE JAYESH	04	02	24	06	08
2	ME2016	AWAGHADE AVINASH	20	14	14	05	13
3	ME2016	BADEKAR NIKHIL SATISH	09	03	20	11	12
4	ME2017	BAGWAN AKIB BAKIR	10	04	04	37	08
5	ME2017	BAGWAN SAAD SALIM	07	14	08	25	14
6	ME2017	BALE CHAITANYA SHAHAJI	35	19	31	35	20
7		BANSODE HRISHIKESH AMOL	06	16	AB	12	22
8	ME2017	BHASME VISHAL VITTHAL	09	16	10	10	23
9	ME2016	BHAT HRISHIKESH SHRIPAD	13	03	22	12	13
10		BHOSALE RUSHIKESH	06	10	20	03	20
11		BHUJBAL NITIN ASHOK	AB	AB	AB	AB	AB
12	ME2016	BODHE CHINMAY MOHAN	03	01	08	00	07
13	ME2017	DALAVI LAKHAN AATMARAM	23	05	17	21	13
14	ME2017	DANGE ASIF MUSTAFA	20	09	18	26	25
15	ME2016	DESHMUKH SANKET VASANT	08	16	07	06	11
16	ME2017	DHAVALE LAUKIK VIJAY	00	07	01	12	00
17		GUJAR GANESH ARJUN	29	17	34	09	34
18	ME2015	GUJAR SHUBHAM RAJENDRA	14	08	20	14	10
19		HADAPAD AKASH ANNAPPA	14	06	AB	AB	20
20	ME2017	JADHAV ASHISH DILIP	05	17	02	11	05
21	ME2017	JANGAM GAURAV MAHESH	10	AB	AB	AB	AB
22	ME2016	KADAM SHREYASH DATTATRAY	20	08	20	10	12
23	ME2016	KADAM DIGVIJAY SANJAY	20	07	20	11	12
24		KAMBLE SAYALI KUMAR	08	05	20	08	11
25	ME2016	KANTHE NIKITA SANJAY	—	AB	AB	18	32
26	ME2016	KARNE ANIKET ASHOK	—	AB	AB	AB	AB
27	ME2015	KASHID PRATIK DEEPAK	—	AB	AB	AB	AB
28		KUDCHIKAR AISHWARYA	08	11	29	11	05
29	ME2015	KULKARNI SHREYAS SHIKANT	04	00	00	05	00
30	ME2016	LADE NIKHIL PRAKASH	04	07	02		08
31	ME2016	LANDAGE JAYASING SUNIL	04	05	02	09	19
32	ME2016	LANGADE HARSHAL SUNIL	12	10	08	11	08
33	ME2016	LIPARE SHUBHAM ASHOK	23	03	17	24	07
34	ME2016	LOHAR POOJA JAYAVANT	38	26	42	40	38
35	ME2016	MANE OMKAR MANOHAR	01	11	00	10	09
36		MANE SACHIN BALU	07	07	35	04	30
37		MULANI NAHIN MOHIDDIN	27	16	36	25	33
38	ME2016	NAGARE ABHIJEET ANIL	34	25	23	27	14
39	ME2016	NIPANE SANGRAM SANJAY	27	09	15	24	15
40	ME2016	PATIL PRAJWAL DEEPAK	20	11	04	17	12
41	ME20170	PATIL TUSHAR JALINDAR	23	11	13	04	07
42	ME2016	PAWAR HRISHIKESH RAJESH	—	AB	AB	AB	AB
43	ME2016	PAWAR MANOJ DADASAHEB	—	AB	AB	AB	AB
44	ME2016	PAWAR PRASAD BALU	20	13	10	18	05

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45	ME2017	PHADTARE SAYALI NILESH	25		18		35		43	27
46	ME2016	PHARANDE SHUBHAM	17		05		07		19	04
47	ME2016	PHARANDE SRUJAN	—		AB		AB		AB	AB
48	ME2016	RAJAGE SANGRAM BIRU	22		12		14		12	15
49	ME2016	SAKHARE NIKHIL	33		18		25		22	02
50	ME2016	SAKHARKAR RANJEET	41		23		32		29	20
51	ME2016	SANGPAL RAHUL RAJENDRA	25		27		16		21	09
52	ME2016	SAPKAL SANKET NANDKUMAR	23		24		22			08
53	ME2017	SHAIKH SAQLAIN ALTAB	00		09		00		04	02
54		SHENDE JEET KISHOR	23		15		22		14	24
55	ME2017	SHILAMKAR SWAPNIL	22		18		44		40	25
56	ME2017	SHINDE ANIKET DATTATRAY	33		19		29		32	23
57	ME2016	SHINDE GANESH KAILAS	40		29		42		46	29
58		SHINDE POOJA VILAS	25		15		08		18	13
59	ME2017	SHINDE SURAJ DATTATRAY	13		12		32		31	01
60	ME2016	SHINGATE SUMEDH	09		04		02		06	16
61	ME2015	SURVE PARAG BHAU	07		28		00		07	08
62	ME2016	TADASKAR ARSHAD RIAZ	20		20		01		28	16
63	ME2016	TAPASE DHANASHRI DADASO	—		AB		AB		31	20
64		THORAT ROHIT BHASKAR	13		06		AB		00	19
65	ME2016	THORAT TEJAS ASHOK	12		27		00		09	05
66	ME2016	TULSANKAR SANKET	12		28		00		08	01
67	ME2016	VEER ONKAR UDAY	20		19		30		12	10
PROVISIONAL STUDENT LIST										
68	ME20170	BAILE KAPIL PRASAD	15		20		05		13	15
69	ME20160	DALAVI AKASH RAVINDRA	07		01		08		01	02
70	ME20150	DESHMUKH OMKAR	—		AB		AB		00	00
71	ME20150	KALE DHANASHREE	05		08		06		04	18
72	ME20150	MANE SURAJ RAMESH	08		03		01		03	09
73	ME20170	SHAIKH USAMAH UZAIR	03		13		00		07	05
74	ME20170	SHINDE AKASH ATUL	20		17		08		06	07
		Faculty Name →	PROF. MAHAJAN S.R.		PROF. KHARAGE A.B.		PROF. DEVENDRA R. L.		PROF. MRS. JADHAV S. M.	PROF. GHATGE D.A.
		Signature →								

H.O.D.
Mechanical Engineering Department
K.B.P College of Engineering, Satara

RAYAT SHIKSHAN SANSTHA'S

KARMAVEER BHAURAO PATIL COLLEGE OF ENGINEERING, SATARA

DEPARTMENT OF MECHANICAL

B.E. Unit Test I (2018-19)

ROLL NO.	UID	NAME OF STUDENT	RAC	MSD	FEA	AE	IPD
			OUT OF (50)	OUT OF (50)	OUT OF	OUT OF (50)	OUT OF (50)
1	ME2016064	BAGWAN SHAHABAZ SHAKIL	22	17	01	25	08
2	ME2016077	BAGWAN SUHEL HAIDAR	31	15	01	20	22
3	ME2015041	BARGE MAYUR BALKRISHNA	11	03	00	08	00
4	ME2016081	BARGE SHUBHAM	03	AB	01	AB	AB
5	ME2016080	BASWANT RAVIRAJ SUBHASH	20	12	04	15	03
6	ME2015027	BHONDAVE MRUNAL SATISH	10	13	00	13	04
7	ME2015024	BHOSALE SANYUKTA RAJKUMAR	10	19	03	09	03
8	ME2014001	CHAVAN AKASH	07	15	04	15	03
9	ME2015037	CHAVAN PARESH GANAPATI	20	15	00	12	11
10		CHAVAN SHIVANI L.	06	12	05	23	18
11	ME2016067	CHAVAN SHRADHA ISHWAR	07	08	03	32	26
12	ME2015061	CHAWADIWALE MUAAJ AKIL	28	05	01	15	11
13	ME2016066	DESHMUKH SNEHAL R.	26	37	08	35	39
14	ME2016078	DHADAME SHIVANJALI SANJAY	03	10	00	19	07
15		DHAYGUDE TEJASWINI D.	04	11	07	08	17
16	ME2014009	GADIWADDAR GOPAL MASAPPA	12	11	01	13	17
17		GAIKWAD ABHAYA P.	04	12	05	13	AB
18	ME2015010	GHADAGE DHIRAJ DHANARAJ	06	13	00	25	07
19							
20	ME2015032	INAMDAR SOHAIL ASHFAQUE	15	05	00	10	01
21	ME2015013	JADHAV ABHISHEK SUNIL	07	04	00	13	00
22	ME2015067	JADHAV VIKAS	20	13	00	25	00
23	ME2016085	JAGTAP GIRISH VIJAY	15	13	00	22	03
24	ME2015012	JAGTAP PRATIK SANTAJIRAO	16	25	00	11	02
25	ME2015056	JANGAM KIRAN	09	20	00	14	02
26	ME2015006	KADAM CHANDAN RAJENDRA	09	10	02	09	00
27	ME2015064	KADAM SURAJ	21	13	02	12	01
28	ME2016068	KAJALE AKSHAY TULSHIRAM	23	24	02	15	19
29		KALBHOR PANKAJ S.	06	14	02	20	21
30	ME2015059	KALE AKSHAY SOPAN	16	16	04	19	00
31	ME2015017	KAMBALE SHRIKANT SATISH	AB	AB	AB	08	00
32	ME2015036	KAMBLE KOMAL PANDURANG	15	09	01	07	05
33	ME2015029	KARANDE POOJA ANANDRAO	30	08	02	10	06
34	ME2016082	KARANDE SWAPNIL DASHARATH	28	27	02	31	05
35	ME2016084	KARANJKAR OMKAR V.	25	17	00	14	03
36	ME2015026	KENJALE PRAJAKTA RAJENDRA	06	10	01	12	06
37	ME2016073	KORE SARASWATI ABHAYKUMAR	05	13	01	11	15
38	ME2014032	KULKARNI AMEY	14	27	02	07	02
39	ME2015050	KUMBHAR AMAR PANDURANG	10	22	00	05	01
40	ME2014033	KUMBHAR DHANAJAY	20	07	04	12	03
41	ME2015008	LAD SHIVAM SHANKARRAO	06	12	02	12	00
42		MADURE VINOD VILAS	13	10	03	12	22
43	ME2015033	MAHAMUNI OMKAR SUNIL	01	06	00	06	00
44		MALAVADE HARSHAL	13	19	08	19	31
45	ME2016088	MANE AVINASH NANDAKUMAR	01	03	00	03	00
46	ME2016081	MANGRULE PRASAD PRAKSH	AB	24	00	19	09

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DEPARTMENT OF MECHANICAL

B.E. Unit Test I (2018-19)

47	ME2015015	MOHITE PRANAV BHAUSAHEB	01		19		CO		11	09
48	ME2016083	MORE NITIRAJ NIWAS	14		12		08		23	23
49	ME2015004	MULLA SAHIL RAJJAK	12		17		11		18	04
50	ME2015001	NADAF SUHEL SHEKHLAL	26		17		02		29	24
51	ME2015011	NIKAM AJAY GHANSHYAM	13		16		CO		06	00
52	ME2015048	PANASKAR SANKET VASANTRAO	10		12		CO		20	07
53		PATIL AKSHAY V.	10		19		08		12	17
54	ME2015009	PATIL OMKAR SANJAY	08		24		02		21	20
55	ME2014040	PATIL PARTHVI	04		13		CO		06	03
56		PAWAR PRANAV	25		18		03		18	24
57	ME2015034	PAWAR VIDYA RAJENDRA	21		20		12		23	18
58	ME2014047	PILAWARE AKSHAY TUKARAM	02		13		CO		15	06
59	ME2014048	POL OMKAR CHANDRAKANT	05		08		CO		05	01
60	ME2016069	RATHOD SWAPNIL RAMDAS	06		00		AB		10	03
61	ME2015035	RAUT OMKAR MANAJI	01		14		AB		07	03
62	ME2016065	SAWANT AKASH SANJAY	09		07		02		29	06
63	ME2015028	SAWANT SAPANA RAJENDRA	13		26		02		23	13
64	ME2015***	SAYYED JAID	00		11		AB			AB
65		SHINDE OMKAR Y.	24		18		02		31	20
66	ME2015014	SHINDE SAHIL SANJAYKUMAR	02		25		00		10	00
67	ME2016079	SHIRKE RAJESH JAYWANT	14		17		00		29	07
68	ME2016074	SIRSAT VIKAS SHRIHARI	12		12		00		15	00
69	ME2015043	TARANGE MADHAV SHIVAJI	08		16		00		17	09
70	ME2015005	WAGH ROHIT ARJUN	11		08		01		17	04
71	ME2015007	YADAV DHANAJI SHIVAJI	12.		01		00		14	06
		PROVISIONAL STUDENT LIST								
72	ME2015052	BHANAGE PRATHMESH SANJAY	12		103		AB		AB	AB
73	ME2014042	PATEL SAHIL	02		10		00		00	00
74	ME2012057	SHINDE SHAILESH	07		18		00		02	00
75	ME2013062	URADE PRANJALI	04		08		00		04	05
76	ME2015060	SUTAR OMKAR MACHINDRA	AB		AB		AB		AB	AB
77	ME2016070	PAWAR SAGAR PRAKASH	00		05		AB		AB	01
78	ME2014024	JIRANGE PARAG	08		11		AB		08	12
79	ME2014005	DALVI SHWETA	AB		AB		AB		AB	AB
80	ME2015030	MORE RUTUJA	AB		AB		AB		AB	AB
81	ME2015058	MOHITE RUSHIKESH RAJENDRA	AB		AB		AB		AB	AB
82	ME2015031	JADHAV GANESH AJAY	00		07		00		08	00
		Faculty Name ⟶	**PROF. JADHAV P. L.**		**PROF. MRS. SHINDE M. Y.**		**PROF. PATIL S. S.**		**PROF. DHUMAL N. U.**	**PROF. MS. SHIVDAS R. K.**
		Signature ⟶								

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

Answer Sheets Shown Report

Unit Test – I/II

Program: Mechanical Class: T.E.

Course: MRC. Date: 18-2-19

SR No	Unique ID/ Roll No.	Name of the Student	Marks Out of 50	Any Grievanee	Grievance Redressed? (Yes/no) Details	Signature of Student
1	ME2016001	ANBHULE JAYESH JAGANNATH	~~18~~ 23	correction in Total	Yes	Anbhule
2	ME2016003	AWAGHADE AVINASH NANDKUMAR	25	—	—	AVI.
3	ME2016004	BADEKAR NIKHIL SATISH	17	—	—	
4	ME2016005	BAGWAN AKIB BAKIR	45	-	-	
5	ME2016006	BAGWAN SAAD SALIM	31	—	—	
6	ME2015001	BALE CHAITANYA SHAHAJI	42	—	—	
7	ME2016008	BANSODE HRISHIKESH AMOL	17	—	—	
8	ME2016009	BHASME VISHAL VITTHAL	33	—	—	
9	ME2015002	BHAT HRISHIKESH SHRIPAD	27	—	—	
10	ME2016011	BHOSALE RUSHIKESH SANJIVAN	00	—	—	
11	ME2016012	BHUJBAL NITIN ASHOK	13	—	—	
12	ME2015003	BODHE CHINMAY MOHAN	10	—	—	
13	ME2016014	DALAVI LAKHAN AATMARAM	46	—	—	
14	ME2016015	DANGE ASIF MUSTAFA	31	—	—	
15	ME2015004	DESHMUKH SANKET VASANT	23	—	—	
16	ME2015005	DHAVALE LAUKIK VIJAY	39	—	—	
17	ME2015006	GUJAR GANESH ARJUN	19	—	—	
18	ME2016019	GUJAR SHUBHAM RAJENDRA	20	—	—	
19	ME2016020	HADAPAD AKASH ANNAPPA	14	—	—	
20	ME2016021	JADHAV ASHISH DILIP	41	—	—	
21	ME2016022	JANGAM GAURAV MAHESH	22	—	—	
22	ME2016023	KADAM SHREYASH DATTATRAY	34	—	—	
23	ME2016024	KADAM DIGVIJAY SANJAY	23	—	—	
24	ME2015007	KAMBLE SAYALI KUMAR	20	—	—	
25	ME2016028	KANTHE NIKITA SANJAY	39	—	—	
26	ME2016029	KARNE ANIKET ASHOK	39	—	—	
27	ME2016030	KASHID PRATIK DEEPAK	07	—	—	
28	ME2016031	KUDCHIKAR AISHWARYA SANDESH	29	—	—	
29	ME2016032	KULKARNI SHREYAS SHIKANT	03	—	—	

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

SR No	Unique ID/ Roll No.	Name of the Student	Marks Out of 50	Any Grievance	Grievance Redressed? (Yes/no) Details	Signature of Student
30	ME2016033	LADE NIKHIL PRAKASH	08	—	—	
31	ME2016034	LANDAGE JAYASING SUNIL	21	—	—	
32	ME2016035	LANGADE HARSHAL SUNIL	Ab	—	—	—
33	ME2016036	LIPARE SHUBHAM ASHOK	30	correction in Total	Yes	
34	ME2016037	LOHAR POOJA JAYAVANT	46	—	—	
35	ME2016038	MANE OMKAR MANOHAR	07	—	—	
36	ME2016039	MANE SACHIN BALU	07	—	—	
37	ME2016040	MULANI NAHIN MOHIDDIN	33	—	—	
[redacted]	ME2016041	NAGARE ABHIJEET ANIL	42	—	—	
39	ME2016042	NIPANE SANGRAM SANJAY	07	—	—	
40	ME2015008	PATIL PRAJWAL DEEPAK	15	—	—	
41	ME2016046	PATIL TUSHAR JALINDAR	26	—	—	
42	ME2016047	PAWAR HRISHIKESH RAJESH	19	—	—	
43	ME2016048	PAWAR MANOJ DADASAHEB	29	—	—	
44	ME2016049	PAWAR PRASAD BALU	45	—	—	
45	ME2016044	PHADTARE SAYALI NILESH	40	—	—	
46	ME2016027	PHARANDE SHUBHAM DATTATRAYA	09	—	—	
47	ME2016002	PHARANDE SRUJAN RAJENDRA	Ab	—	—	
48	ME2016026	RAJAGE SANGRAM BIRU	21	—	—	
[redacted]	ME2016045	SAKHARE NIKHIL NANDKUMAR	42	—	—	
50	ME2017064	SAKHARKAR RANJEET RAMCHANDRA	48	—	—	
51	ME2017065	SANGPAL RAHUL RAJENDRA	08			
52	ME2017066	SAPKAL SANKET NANDKUMAR	42	Q.1.b unassed.	Yes	
53	ME2017067	SHAIKH SAQLAIN ALTAB	—	—		
54	ME2017068	SHENDE JEET KISHOR	30			
55	ME2017069	SHILAMKAR SWAPNIL SURESH	~~34~~ 44	correction in Total	Yes	
56	ME2017070	SHINDE ANIKET DATTATRAY	43	—	—	
57	ME2017071	SHINDE GANESH KAILAS	45	—	—	
58	ME2017072	SHINDE POOJA VILAS	43	—	—	
59	ME2017073	SHINDE SURAJ DATTATRAY	28	—	—	
60	ME2017074	SHINGATE SUMEDH DATTATRAY	12	—	—	
61	ME2017075	SURVE PARAG BHAU	03	—	—	

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

SR No	Unique ID/ Roll No.	Name of the Student	Marks Out of 50	Any Grievance	Grievance Redressed? (Yes/no) Details	Signature of Student
62	ME2017076	TADASKAR ARSHAD RIAZ	29	—	—	
63	ME2017077	TAPASE DHANASHRI DADASO	39	—	—	
64	ME2017078	THORAT ROHIT BHASKAR	17	—	—	
65	ME2017079	THORAT TEJAS ASHOK	22	—	—	
66	ME2017080	TULSANKAR SANKET PARASHRAM	24	—	—	
67	ME2017081	VEER ONKAR UDAY	24	—	—	
68	ME2017082	BAILE KAPIL PRASAD	25	—	—	
69		DESHMUKH OMKAR JAGADISH	18	—	—	
70		SHAIKH USAMAH UZAIR	34	—	—	

Course Coordinator

Academic Coordinator

Head of the Department
H.O.D.
Mechanical Engineering Department
K.B.P College of Engineering, Satara

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST I (2018-19)

Program: ME Class: B.E Course:Industrial Product Design

Date:11/08/2018 Time: 12 to 1:30pm Marks:50

Q. No.	Question	Marks
1	Explain front to end concept development process	8
2	Explain procedure for setting target specification in product design	8
3	Explain characteristics of successful product development OR Explain Challenges faced in product design and development	7
4	Steps in identifying Customer need	7
5	Explain activities of concept generation OR Explain concept selection procedure in product design	8
6	Explain steps in concept testing	8
7	Explain with respect to target specification i. Metrices ii. Competitive benchmarking	4

Copy 80

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST I (2018-19)

Program: ME **Class: B.E** **Course:Automobile Engineering**
Date: 11/08/2018 **Time: 10:00-11.30 am** **Marks: 50**

Q. No.	Question	Marks
1	Write detailed classification of automobiles.	8
2	Explain with neat diagram, front engine rearwheel drive layout and &write its advantages and disadvantages	8
3	Explain working of torque converter with the help of neat sketch, what are limitations of torque converter **OR** Describe with neat sketch centrifugal clutch	7
4	Write types of automobile bodies and explain in detail	7
5	With the help of suitable diagram, describe the constructional features of a diaphragm spring type clutch. Discuss its advantages and disadvantages relative to the clutch employing helical springs (coil spring). OR Draw neat sketch of mulultiplate clutch and compare advantages and disadvantages with single plate clutch	8
6	Explain the construction and working of differential.	8
7	Write functions of i)Frame 2)Clutch 3)Propeller Shaft 4)Differential	4

★ ALL THE BEST ★

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST I (2018-19)

Program: ME **Class: B.E** **Course:** Finite Element Analysis

Date:10/8/18 **Time: 2.00-3.30 pm** **Marks:50**

Instructions:

i All questions are compulsory

Q. No.	Question	Marks
1	Define Bandwidth. Explain with an example how node numbering affects the bandwidth of a stiffness matrix.	10
2	Write a note on i) Rayleigh Ritz method ii) Meshing of a model	20
3	Define minimum potential energy. Derive an expression for the same	10
4	What are natural coordinates. What are their benefits?	10

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST I (2018-19)

Program: ME **Class: B.E** **Course:MSD**

Date:10/8/18 **Time: 12.00-1.30pm** **Marks:50**

Instructions:

i Figures to right indicates marks

ii Assume suitable data whenever necessary and mention it

Que. 1]

a) What is autofrettage? Discuss methods used for autofrettage of cylinders. [6]

b) A pressure vessel, subjected to a design pressure of 0.75 MPa, consists of a cylindrical shell with 2 m inside diameter and 10 mm thickness. An opening of inner diameter 300 mm and wall thickness 10 mm is provided in the shell. The corrosion allowance is 2 mm and the weld joint efficiency is taken as 0.85. the extension of opening inside the shell is 15 mm. The yield strength of the material used for the shell and the opening is 210 N/mm^2. A reinforcing pad made of a 10 mm thick plate is provided for the opening. Determine the inner and oute diameters of pad. [12]

Que. 2]

a) Derive the torque transmitting capacity of single plate clutch using uniform pressure theory. [8]

b)

A centrifugal clutch consists of four shoes, each having a mass of 1.5 kg. In the engaged position, the radius to the center of gravity of each shoe is 110 mm, while the inner radius the drum is 140mm. The coefficient of friction is 0.3. The pre-load in the spring is adjusted in such a way that the spring force at the beginning of engagement is 700 N. The running

Speed is 1440 rpm.

Calculate:

i) The speed at which the engagement begins;

ii) The power transmitted by the clutch at 1440 rpm.

[10]

Que. 3]

a) Discuss ergonomics considerations in design of displays & controls. **[8]**

b) Explain aspects of aesthetic design with suitable examples **[6]**

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST I (2018-19)

Program: ME **Class: B.E** **Course: Refrigeration and Airconditioning**

Date:10/8/18 **Time: 10.00-11.30** **Marks:50**

Instructions:

i All questions are compulsary

<table>
<tr><th>Q. No.</th><th>Question</th><th>Marks</th></tr>
<tr><td>1</td><td>The COP of Air refrigeration cycle is low, but still air refrigeration system is most common in Air crafts discuss the statement</td><td>8</td></tr>
<tr><td>2</td><td>A reversed carnot cycle has a COP 5.5. Determine the absolute temperature ratio high temperature temperature to low temperature
If power consumption of the cycle is 8kW. What is the refrigerating capacity of the machine in TR? If the cycle is used as a heat pump with same ratio of high to lowtemperature. Determine its COP for heating and quantity of heat pumped</td><td>8</td></tr>
<tr><td>3</td><td>Discuss the following cases,
i) Wet Versus Dry compression
ii) Throttling Versus Isentropic Expansion</td><td>8</td></tr>
<tr><td>4</td><td>A simply vapour compression refrigeration system uses methyl chloride (R-40) and operates between temperature of -10°C and 45°C. At entry to the compressor, the refrigerant is dry saturated and after adiabatic compression it attains 60°C. Find COP of refrigeration system
<table>
<tr><th rowspan="2">Saturation temperature in °C</th><th colspan="2">Enthalpy in kJ/kg</th><th colspan="2">Entropy in kJ/kg-k</th></tr>
<tr><th>Liquid</th><th>Vapour</th><th>Liquid</th><th>Vapour</th></tr>
<tr><td>-10</td><td>45.4</td><td>460.7</td><td>0.183</td><td>1.637</td></tr>
<tr><td>45</td><td>133.0</td><td>483.6</td><td>0.485</td><td>1.587</td></tr>
</table></td><td>8</td></tr>
<tr><td>5</td><td>Explain in detail the methods of improving performance of a vapour compression refrigeration with help of P-H diagram</td><td>9</td></tr>
<tr><td>6</td><td>Explain the following terms in brief. Energy ratio (ERR) and Ton of Refrigeration</td><td>4</td></tr>
<tr><td>7</td><td>A Carnot refrigeration requires 1.4kW of power per Ton of refrigeration to maintain a space at -45°C. Determine COP of refrigerator and heat rejected in kJ per Ton.</td><td>5</td></tr>
</table>

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST I (2018-19)

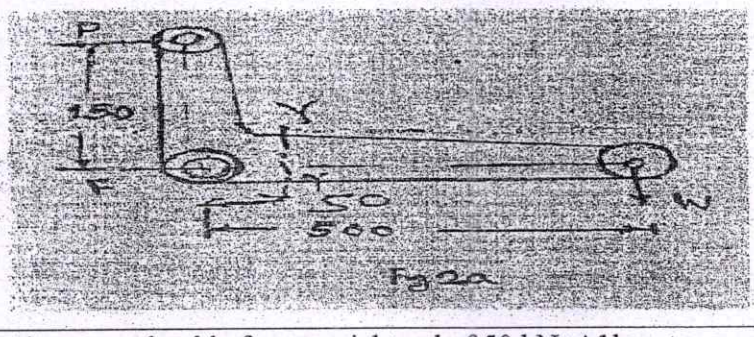
Program: ME **Class: T.E** **Course:MDI**

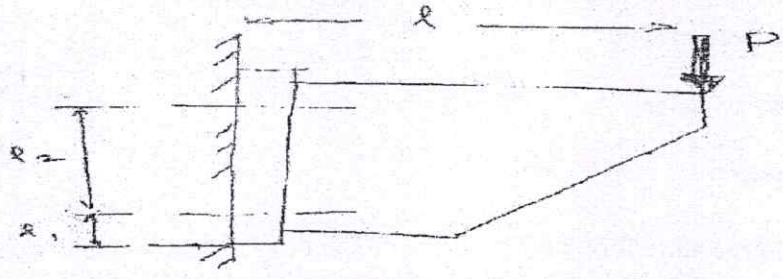
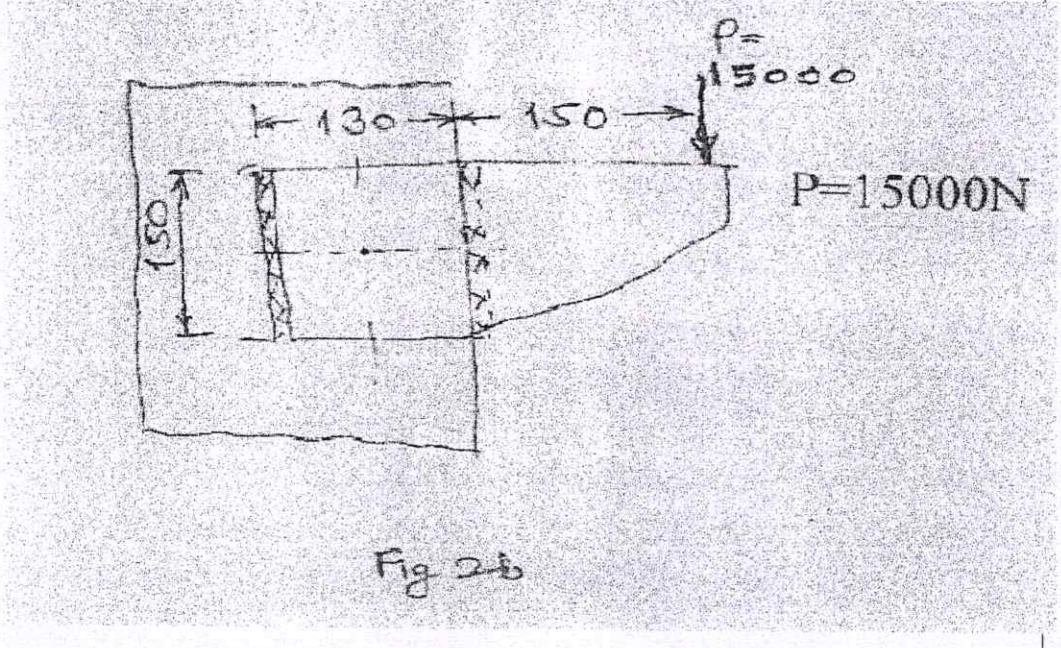
Date:11/8/18 **Time: 10.00-11.30** **Marks:50**

Instructions:

i Figures to right indicates marks

ii Assume suitable data whenever necessary and mention it

Q. No.	Question	Marks
1	**Solve anyThree: (3*6=18)** a) State and explain the various steps involved in design of machine element. b) Suggest with justification the suitable material for the following: i) Leaf Spring in automobile ii) Lathe bed iii) Helmet (Two wheeler) iv) Crank shaft. v) Connecting Rod vi) Piston c) Explain the design procedure for a tum-buckle with the help of neat sketch. d) Write a note on design of bolted joints with load perpendicular to the axis of bolt.	**18**
2	**Attempt any four (8*4=32)**	
a)	A knuckle joint used to connect two mild steel rods has to transmit a tensile load of 200 kN. Given: yield point strength of the maierial in tension 20 N/mm^2 and factor of safety - 2. Allowable stress in compression,is two times the allowable stress in tension, and allowable shear stress is 0.707 times that in tension. Design the knuckle Joint.	**8**
b)	A bell crank lever to raise a vertical load is shown in flg 2a. The vertical load to be lifted is 4500N. The lever consists of forged steel material and a pin at the fulcrum F. Assume following data for the lever material. Safe stress in tension: 75 MPa; safe stress in shear: 60MPa; safe bearing pressure on pins: l0N/mm^2. Determine the pin diameter at end P, dimensions at F and cross section Y-Y (neal to fulmum)  Fig 2a	**8**
c)	Design a tum buckle for an axial toad of 50 kN. A11 parts are made of steel having	**8**

	following properties Allowable tensile stress (f_t) = 140 N/mm^2. Allowable shear stress (f_s) = 75 N/mm^2. Allowable crushing stress (f_c) = 160 N/mm^2.	
d)	A cast iron bracket is fixed to the steel structure as shown in figure 2b. It supports a load P of 30kN. There are two bolts at A and two bolts at B.The distance are as follows: l_1= 50mm, l_2= 300mm and l_3= 600mm. Detenrine the size of the bolts. Its maximum perrnissible tensite stress in The bolt is 50N/mm^2.  Fig 2b	8
e)	Figure 2b shows a plate bracket welded to a steel column. And loaded eccentrically 1. Assuming Assuming that the size of weld is. 6 mm*6 mm detennine the maximum stress induced in the weld  Fig 2b	

Copy 75

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST I (2018-19)

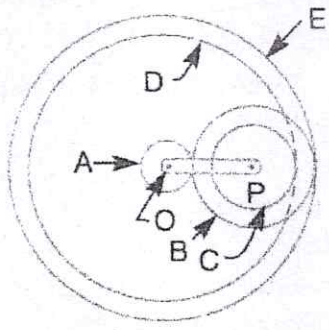
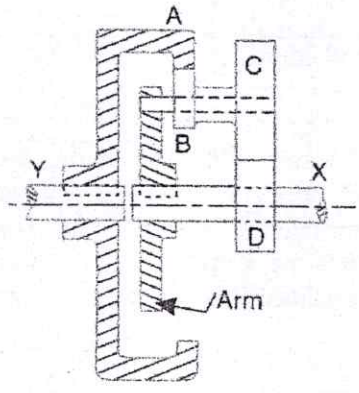
Program: ME **Class: T.E.(Mechanical)** **Course: Theory of Machine II**

Date: 10/08/2018 **Time: 12pm to 1:30pm** **Marks:50**

Instructions:

i. All questions are cornpulsory.
ii. Figures to the right indicate full rnarks.
iii. Draw neat labeled sketch wherever necessary.
iv. Assume if neccssary suitable data and state clearly.
v. Use of Non progrrmmable calculator is permitted.

Q. No.	Question	Marks
1 a)	Derive an expression for the length of path of contact in a pair of meshed spur gears. **OR** Derive an expression for minimum number of teeth required on pinion in order to avoid interference in involute gear teeth when it meshes with wheel.	8
1 b)	A pinion having 30 teeth drives a gear having 80 teeth. The profile of the gears is involute with 20° pressure angle, 12 mm module and 10 mm addendum. Find the length of path of contact, arc of contact and the contact ratio.	8
2 a)	Give classification of toothed gearing. **OR** Give classification of gear trains.	6
2 b)	In a spiral gear drive connecting two shafts, the approximate centre distance is 450 mm and the speed ratio = 3. The angle between the two shafts is 50° and the normal pitch is 18 mm. The spiral angle for the driving and driven wheels are equal. Find : 1. Number of teeth on each wheel, 2. Exact center distance, and 3. Efficiency of the drive, if friction angle = 7°.	10
3	A Fig.(A) shows diagrammatically a compound epicyclic gear train. Wheels A , D and E are free to rotate independently on spindle O, while B and C are compound and rotate together on spindle P, on the end of arm OP. All the teeth on different wheels have the same module. A has 10 teeth, B has 28 teeth and C has 12teeth cut externally. Find the number of teeth on wheels D and E which are cut internally. If the wheel A is driven clockwise at 1 r.p.s. while D is driven counter clockwise at 4 r.p.s., determine the magnitude and direction of the angular velocities of arm OP and wheel E	8

	 **Fig.(A)**	
4	An over drive for a vehicle consists of an epicyclic gear train, as shown in Fig. (B), with compound planets B-C. B has 15 teeth and meshes with an annulus A which has 60 teeth. C has 20 teeth and meshes with the sunwheel D which is fixed. The annulus is keyed to the propeller shaft Y which rotates at 740 rad /s. The spider which carries the pins upon which the planets revolve, is driven directly from main gear box by shaft X, this shaft being relatively free to rotate with respect to wheel D. Find the speed of shaft X, when all the teeth have the same module. When the engine develops 130 kW, what is the holding torque on the wheel D ? Assume 100 per cent efficiency throughout.  **Fig. (B)**	**10**

Copy - 75

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering Satara

Unit Test-I 2018-19

Course: Mechanical Engineering
Semester: Fifth
Subject: Heat & Mass Transfer

Course Code: ME
Marks: 50
Date: 10/8/18

Q-1. Attempt the following. **16 Marks**

a) Explain different laws associated with various modes of heat transfer.
b) Write generalized heat conduction equation in Cartesian, cylindrical and spherical coordinates and transform it into Laplace, Poisson and Fourier Equation.

Q-2. Attempt the following. **16 Marks**

a) Explain thermal conductivity of various engineering materials.
b) Derive an expression for heat flow through hollow and composite cylinder.

Q-3. Attempt the following. **18 Marks**

a) Derive an expression for heat flow through hollow and composite sphere.
b) Derive an expression for critical radius of insulation.

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Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

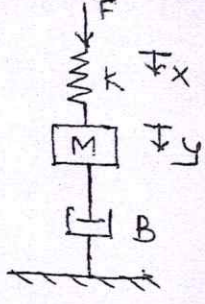
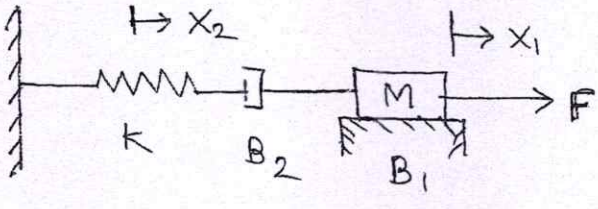
UNIT TEST I (2018-19)

Program: ME **Class: T.E.Mech** **Course:Control Enggineering**

Date: 10/08/2018 **Time:** 10.00 - 11.30 **Marks:50**

Instructions: All Questions are Compulsory

i.

Q. No.	Question	Marks
1	Explain in detail generalized control system and Its type.	10
2	Explian mechanical rotational system.	10
3	Explain force current and force voltage analogy in detail.	10
4	Obatin the differential equation related with **f & X and X & Y** for following mechanical system by using grounded chair representation. 	10
5	Obtain Differential equations of the mechanical system.Also obtain the analogous electrical network using Force voltage and force current anology. 	10

RAYAT SHIKSHAN SANSTHA'S

KARMAVEER BHAURAO PATIL COLLEGE OF ENGINEERING SATARA

MECHANICAL ENGINEERING DEPARTMENT

UNIT TEST II

TIMETABLE (2018-19)

DAY & DATE	TIME	T.E. MECHANICAL	B.E. MECHANICAL
MONDAY 15/10/2018	10:00AM - 11:00AM	HMT	MSD
	12:00PM- 1:00PM	MDI	AUTO
	2:00PM- 3:00PM	TOM II	FEA
TUESDAY 16/10/2018	10:00AM - 11:00AM	ME	IPD
	12:00PM- 1:00PM	CE	RAC
	FEEDBACK 1:00 PM ONWARDS		

UNIT TEST

CO-ORDINATOR

H.O.D

KBP COLLEGE OF ENGINEERING,SATARA

MECHANICAL DEPARTMENT

UNIT TEST II (2018-19)

SEATING ARRANGEMENT FOR STUDENTS

BLOCK NO.	SEATING ARRANGEMENT
T.E. CLASSROOM (S-152)	T.E. (ROLL NO. 1-37) = 37 B.E. (ROLL NO. 1-37) = 37
B.E. CLASSROOM (S-150)	T.E. (ROLL NO. 38-70) = 33 B.E. (ROLL NO. 38-70) = 33
RAC LAB.	T.E. (ROLL NO. 71-80) = 10 B.E. (ROLL NO. 71-80) = 10

Unit Test Coordinator

H.O.D

RAYAT SHIKSHAN SANSTHA'S

KARMAVEER BHAURAO PATIL COLLEGE OF ENGINEERING SATARA

MECHANICAL ENGINEERING DEPARTMENT

UNIT TEST II (2018-19)

SUPERVISION CHART

SR. NO.	DATE	TIME	BLOCK	SUPERVISOR NAME
1	15/10/2018	10:00 to 11:00 am	T.E. CLASSROOM	PROF.GHATGE D.A.
2	15/10/2018	10:00 to 11:00 am	B.E. CLASSROOM	PROF.JADHAV P. L.
3	15/10/2018	10:00 to 11:00 am	RAC LAB	PROF.PISAL A. B.
4	15/10/2018	2:00 to 3:00 pm	T.E. CLASSROOM	PROF.PATIL S.S.
5	15/10/2018	12:00 to 1:00 pm	B.E. CLASSROOM	PROF. MS.SHIVDAS R. K.
	16/10/2018	10:00 to 11:00 am	RAC LAB	
6	15/10/2018	12:00 to 1:00 pm	T.E. CLASSROOM	PROF.DEVENDRA R. L.
	16/10/2018	12:00 to 1:00 pm	RAC LAB	
7	15/10/2018	12:00 to 1:00 pm	RAC LAB	PROF.DHUMAL N. U.
8	15/10/2018	2:00 to 3:00 pm	RAC LAB	MR.CHAVAN U. S.
9	15/10/2018	2:00 to 3:00 pm	B.E. CLASSROOM	PROF. MS.PATIL P. P.
10	16/10/2018	10:00 to 11:00 am	T.E. CLASSROOM	MR.JADHAV M. M.
11	16/10/2018	10:00 to 11:00 am	B.E. CLASSROOM	PROF.PUJARI A. S.
12	16/10/2018	12:00 to 1:00 pm	T.E. CLASSROOM	PROF.MAHAJAN S. R.
13	16/10/2018	12:00 to 1:00 pm	B.E. CLASSROOM	PROF. MRS.JADHAV S. M.

(Unit Test Co-ordinator)

H.O.D.
Mechanical Engineering Department
K.B.P College of Engineering, Satara

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST II (2018-19)

Program: ME **Class: T.E** **Course:TOM II**

Date: / / 18 **Time:** **Marks:25**

Instructions:

i Figures to right indicates marks

ii Assume suitable data whenever necessary and mention it

Q. No	Question	Marks
1	**Solve anyTwo: (2*8=16)**	**16**
a)	An aeroplane makes a complete half circle of 50 metres radius, towards left, when flying at 200 km per hr. The rotary engine and the propeller of the plane has a mass of 400 kg and a radius of gyration of 0.3 m. The engine rotates at 2400 r.p.m. clockwise when viewed from the rear. Find the gyroscopic couple on the aircraft and state its effect on it.	**8**
b)	The turning moment diagram for a petrol engine is drawn to the following scales : Turning moment, 1 mm = 5 N-m ; crank angle, 1 mm = 1°. The turning moment diagram repeats itself at every half revolution of the engine and the areas above and below the mean turning moment line taken in order are 295, 685, 40, 340, 960, 270 mm2. The rotating parts are equivalent to a mass of 36 kg at a radius of gyration of 150 mm. Determine the coefficient of fluctuation of speed when the engine runs at 1800 r.p.m.	**8**
b)	The turbine rotor of a ship has a mass of 8 tonnes and a radius of gyration 0.6 m. It rotates at 1800 r.p.m. clockwise, when looking from the stern. Determine the gyroscopic couple, if the ship travels at 100 km/hr and steer to the left in a curve of 75 m radius.	**8**
2	**Attempt any One (9*1=9)**	
a)	A shaft carries four masses A, B, C and D of magnitude 200 kg, 300 kg, 400 kg and 200 kg respectively and revolving at radii 80 mm, 70 mm, 60 mm and 80 mm in planes measured from A at 300 mm, 400 mm and 700 mm. The angles between the cranks measured anticlockwise are A to B 45°, B to C 70° and C to D 120°. The balancing masses are to be placed in planes X and Y. The distance between the planes A and X is 100 mm, between X and Y is 400 mm and between Y and D is 200 mm. If the balancing masses revolve at a radius of 100 mm, find their magnitudes and angular positions.	**9**
b)	A ship propelled by a turbine rotor which has a mass of 5 tonnes and a speed of 2100 r.p.m. The rotor has a radius of gyration of 0.5 m and rotates in a clockwise direction when viewed from the stern. Find the gyroscopic effects in the following conditions: 1. The ship sails at a speed of 30 km/h and steers to the left in a curve having 60 m radius. 2. The ship pitches 6 degree above and 6 degree below the horizontal position. The bow is descending with its maximum velocity. The motion due to pitching is simple harmonic and the periodic time is 20 seconds. 3. The ship rolls and at a certain instant it has an angular velocity of 0.03 rad/s clockwise when viewed from stern. Determine also the maximum angular acceleration during pitching. Explain how the direction of motion due to gyroscopic effect is determined in each case.	**9**

75 copy

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara.

Unit Test-II 2018-19

Course: Mechanical Engineering — Course Code: ME
Semester: Fifth — Marks: 25
Subject: Heat & Mass Transfer — Subject Code:
Date: — Time:

Instructions:

1. All questions are compulsory.
2. Illustrate your answers with neat sketches wherever necessary.
3. Figures to the right indicate full marks.
4. Assume suitable data if necessary.

Q-1. Attempt the following. **16 Marks**

a) Explain LMTD & NTU analysis for parallel flow.
b) Derive an expression for heat dissipation for fin with insulated tip.

Q-2. Attempt the following. **9 Marks**

a) Explain Error estimation in temperature measurement in thermowall.
b) Explain Nusselt theory of condensation.
c) Explain types of boiling & pool boiling curve.

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Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara.

Unit Test-II 2018-19

Course: Mechanical Engineering — Course Code: ME
Semester: Fifth — Marks: 25
Subject: Heat & Mass Transfer — Subject Code:
Date: — Time:

Instructions:

1. All questions are compulsory.
2. Illustrate your answers with neat sketches wherever necessary.
3. Figures to the right indicate full marks.
4. Assume suitable data if necessary.

Q-1. Attempt the following. **16 Marks**

c) Explain LMTD & NTU analysis for parallel flow.
d) Derive an expression for heat dissipation for fin with insulated tip.

Q-2. Attempt the following. **9 Marks**

d) Explain Error estimation in temperature measurement in thermowall.
e) Explain Nusselt theory of condensation.
f) Explain types of boiling & pool boiling curve.

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RAYAT SHIKSHAN SANSTHA'S

K.B.P. COLLEGE OF ENGINEERING, SATARA.

UNIT TEST –II

CLASS – T.E.MECHANICAL DATE & TIME

SUBJECT- CONTROL ENGINEERING MARKS-25

Note-All Questions Are Compulsory

1. Determine the state space representation and computer diagram of following transfer function by direct programming,

$$Y(t) = \frac{1}{(D+3)(D+4)} f(t)$$ **8 Marks**

2. Determine the state space representation and computer diagram of following transfer function by using series programming method,

$$Y(t) = \frac{2(D+5)}{(D+2)(D+3)} f(t)$$ **8 Marks**

3. Sketch root locus for system having, T.F.

$$G(s).H(s) = \frac{K(s-4s+20)}{(s+2)(s+4)}$$ **9 Marks**

RAYAT SHIKSHAN SANSTHA'S

K.B.P. COLLEGE OF ENGINEERING, SATARA.

UNIT TEST –II

CLASS – T.E.MECHANICAL DATE & TIME

SUBJECT- CONTROL ENGINEERING MARKS-25

Note-All Questions Are Compulsory

1. Determine the state space representation and computer diagram of following transfer function by direct programming,

$$Y(t) = \frac{1}{(D+3)(D+4)} f(t)$$ **8 Marks**

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$$Y(t) = \frac{2(D+5)}{(D+2)(D+3)} f(t)$$ **8 Marks**

3. Sketch root locus for system having, T.F.

$$G(s).H(s) = \frac{K(s-4s+20)}{(s+2)(s+4)}$$ **9 Marks**

38 Copy

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST II (2018-19)

Program: ME **Class: T.E** **Course:MDI**

Date: / / 18 **Time:** **Marks:25**

Instructions:

i Figures to right indicates marks

ii Assume suitable data whenever necessary and mention it

Q. No	Question	Marks
1	**Solve anyTwo: (2*8=16)**	**16**
a)	The propeller shaft is required to transmit 45 kW power at 500 r.p.mIt is a hollow shaft made of plain carbon steel and permissible shear stress is 84 N/mm^2. Calculate the inside and outside diameters of shaft for ratio of inside dia. 0.6 times the outside diameter	**8**
b)	Safety valve of 60 mm diameter is to blow off at a pressure of 1.2 N/mm^2 It is held on its seat by closed coil helical spring.The maximum lift of valve is 10 mm. Design a suitable compression spring of spring index 5 and providing initial compression of 35 mm The maximum shear stress in material of wire is limited to 500N/mm^2. The modulus of rigidity of spring material is 80 Kn/mm^2 Assume squared and ground ends. Calculate i) Diameter of wire ii) Mean coil diameter iii) Number of active turns and iv) Pitch of the coil.Assume Wahl's stress factor.	**8**
b)	The nominal diameter of triple threaded screw thread is 50 mm while the pitch is 8 mm.It is used with a collar having outer diameter 100 mm and inner diameter as 65 mm The coefficient of friction at thread surface as well as collar surface may be taken as 0.15 The screw is used to raise the load of 15 KN Using uniform wear theory for collar friction Calculate i) Torque required to raise the load ii) The force required to raise the load if applied at radius of 100 mm	**8**
2	**Attempt any One (9*1=9)**	
a)	Design a cast iron protective type flange coupling to transmit 15 KW at 900 r.p.m. from an electric motor to a compressor. The service factor may be assumed as 1.35 .The following permissible stresses may be used Shear stress for shaft,bolt and key material=400MPa,Crushing stress for bolt and key=80Mpa,Shear Stress for cast iron=8MPa.Draw a neat sketch of the coupling.	**9**
b)	A Double start square threaded screw of 80 mm nominal diameter with 10 mm pitch,supports vertical load of 20 KN Axial thrust on screw is taken by collar bearing of 200 mm outerdiameter and 150 mm inner diameter.Find force at end of level which is 300 mm long to raise and lower load. Coefficient of friction is 0.15 and collar 0.2	**9**

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST II (2018-19)

Program: ME Class: B.E Course:Industrial Product Design

Date: Time: Marks:25

Q. No.	Question	Marks
1	**Write short Note on any two** **A.** Concurrent engineering **B.** Design For Manufacturing And Assembly **C.** Personal Protective Equipment	10
2	**Explain procedure for establishing Product archiciecture**	8
3	**Explain the Man-Machine relationship system** **OR** **Explain design of displays in machine controls**	7

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

UNIT TEST II (2018-19)

Program: ME Class: B.E Course:Industrial Product Design

Date: Time: Marks25

Q. No.	Question	Marks
1	**Write short Note on any two** **A.** Concurrent engineering **B.** Design For Manufacturing And Assembly **C.** Personal Protective Equipment	10
2	**Explain procedure for establishing Product archiciecture**	8
3	**Explain the Man-Machine relationship system** **OR** **Explain design of displays in machine controls**	7

DEPARTMENT OF MECHANICAL ENGINEERING

UNIT TEST II

CLASS: B.E. (MECHANICAL) SUB: Automobile Engineering

DATE : TIME: 60 MINUTES MARKS : 25

Solve Any 2 of Following.

Q.1. What is need of wheel alignment which parameters are checked in wheel alignment. **(8 Marks)**

Q.2. Explain in detail with neat sketch, Ackerman steering gear mechanism. **(8 Marks)**

Q. 3. Explain in detail Understeer and Oversteer. **(8 Marks)**

Solve Any 1 of Following.

Q.4. Which are the different types of independent suspensions? Explain any one of them with neat sketch. **(9 Marks)**

Q.5. Illustrate with neat sketch Air brake system. **(9 Marks)**

76 Copy

Karmaveer Bhauro Patil College of Engineering Satara
Department of Mechanical Engineering
End Term Test (2018-19) Max Marks 25

Refrigeration and Airconditioning

Note- All questions carries one mark

1. Which of the following statements are TRUE?

a) Evaporative cooling systems are attractive for hot and humid climates
b) Evaporative cooling systems are attractive for hot and dry climates
c) Evaporative cooling systems are ideal for comfort applications
d) Evaporative cooling systems are ideal for several industrial applications.

2. Which of the following statements are TRUE?
a) In a direct evaporative cooling system, the lowest possible temperature is the wet bulb temperature corresponding to the outdoor air
b) In a direct evaporative cooling system, the lowest possible temperature is the dew point temperature corresponding to the outdoor air
c) In a direct evaporative cooling system, cooled and humidified air is supplied to the conditioned space
d) In a direct evaporative cooling system, cooled and dehumidified air is supplied to the conditioned space

3. Which of the following statements are TRUE?
a) In an indirect evaporative cooling system, the air supplied to the conditioned space is at a lower temperature, but higher humidity ratio
b) In an indirect evaporative cooling system, the air supplied to the conditioned space is at a lower temperature and at a humidity ratio corresponding to the outdoor air
c) Compared to direct evaporative cooling systems, it is possible to achieve lower supply air temperatures in simple indirect evaporative coolers
d) In multi-stage evaporative cooling systems, it is possible to cool the air to a temperature lower than the entering air WBT

4. Which of the following statements are TRUE?
a) Evaporative cooling systems are environment friendly
b) Evaporative cooling systems offer lower initial and lower running costs
c) Evaporative cooling systems are easier to maintain and fabricate
d) Evaporative systems provide better control on indoor climate

5. Which of the following statements are TRUE?
a) Direct evaporative cooling systems are attractive in places where the summer design WBT is greater than 24°C
b) Direct evaporative cooling systems are attractive in places where the summer design WBT is less than 24°C
c) Indirect evaporative cooling systems can be used over an extended range of climatic conditions
d) A combination of evaporative cooling system with conventional air conditioning system can offer better overall performance

6. Which of the following statements are TRUE?
a) In winter air conditioning systems, heated and dehumidified air is supplied to the conditioned space
b) In winter air conditioning systems, heated and humidified air is supplied to the conditioned space
c) A pre-heater is recommended in winter air conditioning systems to improve overall efficiency of the system
d) A pre-heater is recommended in winter air conditioning systems to prevent freezing of water in the humidifier and for better control

7. Which of the following statements are TRUE?
a) When humidification is done using an air washer, the temperature of air drops during humidification
b) When humidification is done using an air washer, the temperature of air rises during humidification
c) When humidification is carried out by adding dry steam, the temperature of air remains close to the WBT of entering air
d) When humidification is carried out by adding dry steam, the temperature of air remains close to the DBT of entering air

17. From ASHRAE comfort chart it is observed that:
a) Lower dry bulb temperatures and higher moisture content are recommended for winter
b) Lower dry bulb temperatures and lower moisture content are recommended for winter
c) Lower dry bulb temperatures and higher moisture content are recommended for summer
d) Higher dry bulb temperatures and higher moisture content are recommended for summer

18. Which of the following statements are TRUE?
a) For the same metabolic rate, as the thermal load on human body increases, the PMV value increases
b) For the same metabolic rate, as the thermal load on human body increases, the PMV value decreases
c) As the absolute value of PMV increases, the percent of people dissatisfied (PPD) increases
d) As the absolute value of PMV increases, the percent of people dissatisfied (PPD) decreases

19. Which of the following statements are TRUE?
a) When a human body is at neutral equilibrium, the PMV value is 1.0
b) When a human body is at neutral equilibrium, the PMV value is 0.0
c) When a human body is at neutral equilibrium, the PPD value is 0.0
d) When a human body is at neutral equilibrium, the PPD value is 5.0

20. Which of the following statements are TRUE?
a) The air conditioning load on a building increases, if 0.4% design value is used for outside conditions instead of 1.0% value for summer
b) The air conditioning load on a building decreases, if 0.4% design value is used for outside conditions instead of 1.0% value for summer
c) For winter air conditioning, a conservative approach is to select 99.6% value for the outside design conditions instead of 99% value
d) For winter air conditioning, a conservative approach is to select 99% value for the outside design conditions instead of 99.6% value

21. Which of the following statements are TRUE?
a) During sensible cooling of air, both dry bulb and wet bulb temperatures decrease
b) During sensible cooling of air, dry bulb temperature decreases but wet bulb temperature remains constant
c) During sensible cooling of air, dry and wet bulb temperatures decrease but dew point temperature remains constant
d) During sensible cooling of air, dry bulb, wet bulb and dew point temperatures decrease

22. Which of the following statements are TRUE?
a) The sensible heat factor for a sensible heating process is 1.0
b) The sensible heat factor for a sensible cooling process is 0.0
c) Sensible heat factor always lies between 0.0 and 1.0
d) Sensible heat factor is low for air conditioning plants operating in humid climates

23. Which of the following statements are TRUE?
a) As the by-pass factor (BPF) of the cooling coil increases, temperature difference between air at the outlet of the coil and coil ADP decreases
b) The BPF of the coil increases as the velocity of air through the coil increases
c) The BPF of the coil increases as the fin pitch increases
d) The BPF of the coil decreases as the number of rows in the flow direction increase

24. Which of the following statements are TRUE?
a) During cooling and humidification process, the enthalpy of air decreases
b) During cooling and humidification process, the enthalpy of air increases
c) During cooling and humidification process, the enthalpy of air remains constant
d) During cooling and humidification process, the enthalpy of air may increase, decrease or remain constant depending upon the temperature of the wet surface

25. An air stream at a flow rate of 1 kg/s and a DBT of 30°C mixes adiabatically with another air stream flowing with a mass flow rate of 2 kg/s and at a DBT of 15oC. Assuming no condensation to take place, the temperature of the mixture is approximately equal to:

a) 20°C b) 22.5°C c) 25°C d) Cannot be found

Karmaveer Bhaurao Patil College of Engineering
Unit Test-II 2018-19
Finite Element Analysis
Class: BE (Mechanical)

Max. Marks: 25 Time: 1Hr.

All questions are compulsory and carry equal marks.

1. A triangular plane stress element has .....degree's of freedom

   [A] 3 [B] 4 [C] 5 [D] 6

2. Number of displacement polynomials used for an element depends on

   [A] Nature of element [B] type of an element [C] degrees of freedom [D] nodes

3. In weighted residual technique, the methods adopted are

   [A] Point collocation method [B] least squares method [C] Galerkin's method [D] all

4. The higher order elements are also called as

   [A] Complex elements [B] compound element [C] linear element [D] none

5. How many nodes are in 3-D brick element?

   [A] 3 [B] 6 [C] 5 [D] 8

6. The displacement function for 1-D, two node linear elements in terms of shape function will be

   [A] u =N1u2 + N2u1 [B] u = N2 u1 + N1u2 [C] u = N1u1+N2u2 [D] u = N1u1+N1u2

7. On gathering stiffness and loads, the system of equations is given by

   [A] KQ=F [B] KQ≠F [C] K=QF [D] K≠QF

8. A six noded triangular element is known as

   [A] Linear strain triangular element [B] constant strain triangular element [C] Variable strain triangular element [D] differable strain triangular element

9. The art of subdividing a structure into a convenient number of smaller components is called

   [A]Discretization [B] numbering of nodes [C] Continuum [D] both a &b

10. A three noded triangular element is called as

    [A]linear strain triangular element [B] constant strain triangular element [C] varaiable strain triangular element [D] differable strain triangular element

11. To solve FEM problem, it subdivides a large problem into smaller, simpler parts that are called

    [A]finite elements,[B]infinite elements [C]dynamic elements [D]static elements

12. FEM gives accurate representation of

    [A]real geometry [B]complex geometry [C]real and complex geometry [D]constant geometry

13. The geometry and other parameters of an element in terms of only one spatial coordinate then the element is

    [A] 2 dimensional [B] one dimensional [C] three dimensional [D] none

14. The finite element method is mostly used in the field of

    [A] structural mechanics [B]classical mechanics [C] applied mechanics [D]Engineering mechanics

15. FEM can't produce exact results as those of.....methods

[A] Analytical [B] logical [C] theoretical [D] all the above

16. Sum of all shape functions is equal to

[A] Zero [B] -1 [C] +1 [D] 2

17. The higher order elements are also called as

[A] Complex elements [B] compound element [C] linear element [D] none

18. At Fixed support the displacements are equal to .....

[A] 1 [B] 2 [C] 3 [D] 0

19. FEM also operates the parameters like

[A] Heat transfer [B] temperature [C] both A&B [D] none

20. Range of Poisson's ratio for metals is

[A] 0.25-0.33 [B] 0.22-0.45 [C] 0.22-0.25 [D] 0.25-0.50

21. The force required to produce unit displacement is

[A] Pressure [B] traction [C] stiffness [D] none

22. The truss element can resist only

[A] Axial force [B] surface force [C] point load [D] none

23. Hinged support is having..... number of reaction forces

[A] 1 [B] 2 [C] 3 [D]

24. .....magnitude never exceeds unity.

[A] Local coordinate [B] natural coordinate[C] region coordinate [D] global coordinate

25. The state of stress for a three dimensional body has——— components.

[A] Six [B] three [C] two [D] Four

Unit Test - II

Class - BE (Mechanical) Marks - 50

Q.1 (a) Explain difference between structural diagram and speed diagram. (06)

(b) A multispeed gearbox, determine speed steps arranged in geometric progression for the following conditions:

$n_{min} = 100$ r.p.m, $n_{max} = 1800$ rpm

$z = 9$.

If the gearbox is driven by 5kW, 1440 rpm electric motor.

1) Draw speed ray diagram
2) Draw Gearing diagram
3) Determine the number of teeth on gears.

Assume same module of all gears. (12)

Q. 2 The cylinder of a four-stroke diesel engine has the following specifications:

Cylinder bore = 150 rpm

max. gas pressure = 3 Mpa

Allowable tesile stress = 50 N/mm^2

Determine the thickness of cylinder wall. Also calculate the apparent and net circumferential & longitudinal stresses in the cylinder wall. (07)

(70) - End -

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara.

T.E.Mech.(Sem-V) Unit test-II, AY 2018-19

Manufacturing Engineering

Day and Date: , -10-2018 Total Marks: **25**

Time: **to**

Instructions: **1) Each question carries 1 mark**
2) Mark √ on correct option
3) Corrections are not allowed

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1) Which of the following sentences are true for jigs and fixtures?

1. Using jigs and fixture produce work rapidly
2. High speed, feed and depth of cut can be used in machining with the help of jigs and fixtures
3. Jigs and fixture cannot be used in machining of complex and heavy components

a. (1) and (2)
b. (2) and (3)
c. (1) and (3)
d. All of the (1), (2) and (3)

2) How jigs are in terms of weight compared to fixtures?

a. Jigs are lighter than fixtures
b. Jigs are heavier than fixtures
c. Jigs are equal in weight to fixtures for same operation
d. cannot say

3) Fixtures are used in connection with

a. drilling operation
b. reaming operation
c. tapping operation
d. milling operation

4) A device, in which a component is held and located for a specific operation and bushes are integrated that guide the tool, is called as

a. jig
b. fixture
c. both a. and b.
d. none of the above

5) Jigs and fixtures are

a. machining tools
b. precision tools
c. both a. and b.
d. none of the above

6) In CNC machine tool, the part program entered into the computer memory

a. can be used only once
b. can be used again and again
c. can be used again but it has to be modified every time
d. cannot say

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7) Which of the following options is correct for the control unit and panel of NC (Numerical Control) and CNC (Computer Numerical Control) machine tools?

a. The control unit of NC machine tool works in ON-line mode and the control unit of CNC machine tool works in batch processing mode

b. The control unit of NC machine tool works in batch processing mode and the control unit of CNC machine tool works in ON-line mode

c. The control units of both NC and CNC machines work in ON-line mode

d. The control units of both NC and CNC machines work in batch processing mode

8) In NC (Numerical Control) machine tool, the position feedback package is connected between

a. control unit and programmer

b. programmer and machine tool

c. control unit and machine tool

d. programmer and process planning

9) The cutting tool removes the metal from workpiece in the form of

a. solid blocks

b. powder

c. chips

d. all of the above

10) Continuous chips are formed during metal cutting operation due to

a. ductile work materials

b. large rake angle

c. high cutting speed

d. all of the above

11) Which type of chips form while machining of brittle materials?

a. continuous chipsq

b. discontinuous chips

c. Built-up chips

d. all of the above with some proportion

12) In the metal cutting process, when the compression limit of the metal in front of the cutting tool has been exceeded then it is separated from workpiece and flows

a. elastically

b. plastically

c. rigidly

d. none of the above

13) In metal cutting process

a. material removal is affected by relative motion between tool and the workpiece

b. material removal is not affected by relative motion between tool and the workpiece

14) Which of the following is the example of multi point cutting tool?

a) milling cutter

b) broaching tool

c) both milling cutter and broaching tool

d) none of the mentioned

15) Which of the following is not the advantage of CNC machines?

a) Higher flexibility

b) Improved quality
c) Reduced scrap rate
d) Improved strength of the components

16) For CNC machining skilled part programmers are needed.
a) True
b) False

17) Shearing the sheet into two or more pieces is known as?
a) Perforating
b) Parting
c) Notching
d) Lancing

18) As the thickness of sheet is increased the clearance needed will also?
a) Increase
b) Decrease
c) No effect
d) First decrease then increase

19) Which of the following die can perform multiple operations such as blanking, punching, notching etc.?
a) Simple dies
b) Progressive dies
c) Compound die
d) None of the Mentioned

20) With the use of Jigs and fixture total cost of production
a) Increases
b) Decreases
c) Remains same
d) Jigs are not used in any production process

21) With the use of Jigs and fixture rate of production will
a) Increase
b) Decrease
c) Remains same
d) Jigs are not used in any production process

22) Jigs and fixture increases the accuracy of the parts.
a) True
b) False

23) Jigs And fixture are used to provide interchangeability.
a) True
b) False

24) With the use of Jigs and fixture quality control expenses will
a) Reduce
b) Increases

25) With the use of Jigs and fixture
a) Labour cost decreases
b) Labour cost increases
c) None of the mentioned

"Education through self-help is our motto" – Karmaveer

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

Department of Mechanical Engineering

Parent Meet

SEM I (2018-19)

Programme Details

Date: 25/08/2018 **Time:** 10.00 A.M To 12.30 P.M

No. parents Present: 48

Activities Planned For Meeting:

1. Registartion of Parents (9.30-10.00 AM)
2. Preface of Parent Meet Given by Ms. P. P. Patil
3. Department Overview Presentation by Prof. S.S Patil
4. Prize Distribution for toppers of all Classes Based on Last Semester Results.
5. Talk by, Mrs. M. Y. Shinde , H.O.D Mechanical.
6. Talk By, Mr. S.M. Sangale, Principal KBPCOE, Satara
7. Talk by, one Parent representative
8. Interactive Session of parents with class Coordinators and Batch Mentors to discuss Wards academic performance.
9. Feedback Collection from Parents
10. Vote of Thanks by Mr. A.B.Kharage.
11. End of Programme with National Anthem.

Parent Meet Coordinator

HOD Mechanical

Parent Meet Report I

(2018-19)

The Mechanical Department is regularly interact with the Parents of students and through it also organizes Parent meet twice in a year and collects the feedback of parents. Parent Meets was organized to let parent aware of different Institutional Policies and also to give them information of different Curricular and extracurricular activities which institute is organizing for overall development of students.

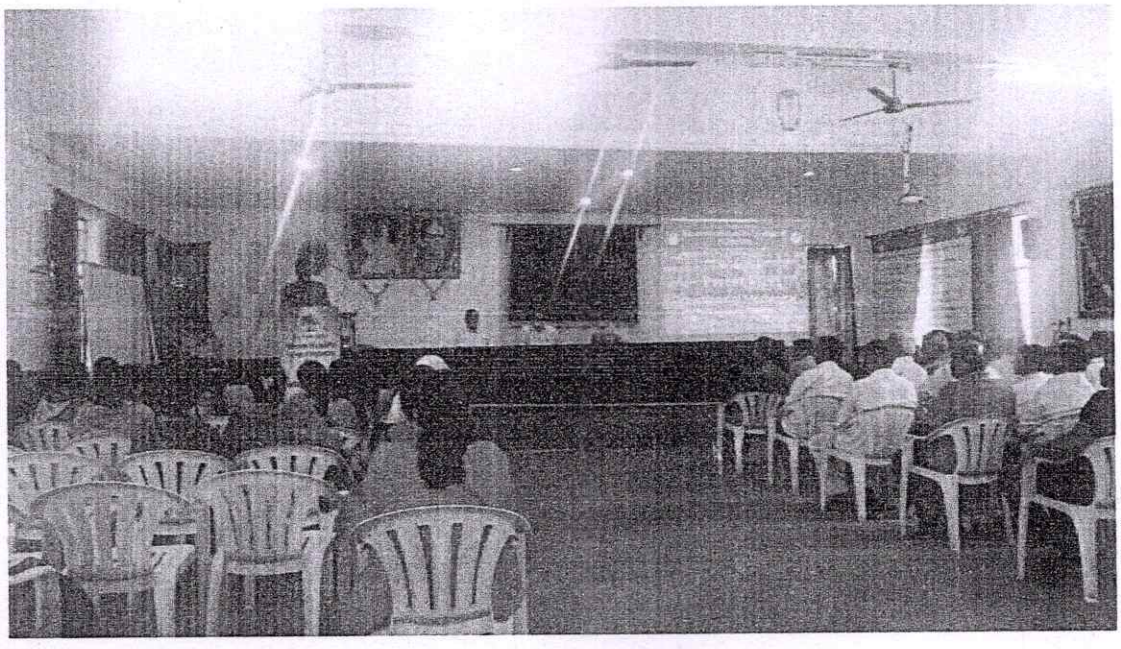
Parent Meet

SEM I (2018-19)

Programme Details

Date: 25/08 /2018 **Time:** 10.00 A.M To 12.30 A.M

No. parents Present: 38



Parents Meet I