ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ವಿತಾಯುಲಧಿನಿಯಮ್ಂ೯೯೪ರಲಡಿಯಲ್ಲಿಕರ್ನಾಟಕಸರ್ಕಾರದಿಂದಸ್ಥಾಪಿತವಾದರಾಜ್ಯವಿಶ್ವವಿದ್ಯಾಲಯ'ಜ್ಞಾನ

ಸಂಗಮ' ಮಚ್ಛೆ, ಬೆಳಗಾವಿ-590018

Visvesvaraya Technological University

(The State University of Govt. Karnataka, Established as per VTU Act 1994)

"JnanaSangama" Machhe, Belagavi-590018, www.vtu.ac.in

Dr. A. S. Deshpande B.E., Tech., Ph.D.
Registrar

Phone: (0831) 2498100
Fax: (0831) 2405467

Ref. No. VTU/BGM/BOS/2021-22/ 709 Date: 29 APR 2022

NOTIFICATION

Subject: Academic Calendar of IV semester MBA, II semester B.Sc., IV semester B.E./ B.Tech., and (revised) VI semester B.E./B.Tech./B. Plan and (revised) I semester B.E./B.Tech./B.Plan/B.Arch. programs of University regarding...

Reference Hon'ble Vice-Chancellor's approval dated: 25.04.2022

Academic Calendar of IV semester MBA, II semester B.Sc., IV semester B.E./ B.Tech., **(revised)** VI semester B.E./B.Tech./B.Plan., and **(revised)** I semester B.E./B.Tech./ B.Plan./ B.Arch., programs of the University are shown on the 2nd page of this notification.

The Principals of Affiliated, Constituent and Autonomous Engineering Colleges are hereby informed to bring the academic calendar to the notice of all concerned.

Sd/-
REGISTRAR

To,

1. The Principals of all affiliated/ constituent /Autonomous Engineering Colleges under the ambit of VTU Belagavi.
2. The chairperson, Department of Mechanical Engineering /Civil Engineering /Computer Science and Engineering and Business Studies of the University.

Copy to.

1. To the Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for information
2. The Registrar (Evaluation), VTU Belagavi for information.
3. The Regional Directors (I/c) of all the regional offices of VTU for circulation.
4. The Director SMUTTI, VTU Belagavi for information and to make arrangements to upload Academic Calendar on the VTU web portal.
5. The Director of Physical Education, VTU Belagavi for information
6. PS to Registrar VTU Belagavi
7. All the concerned Special Officer/s and Caseworker/s of the academic section, VTU, Belagavi

College of Engineering Bangalore

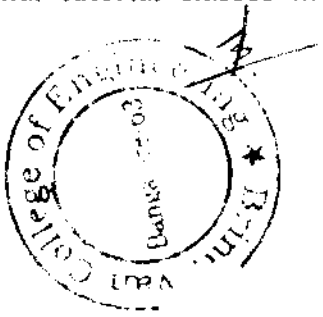
Sd/-
REGISTRAR

Academic Calendar for IV sem MBA / IV semB.E./B.Tech.(**Revised**) VI sem B.E./B.Tech /B.Plan., (**Revised**) B.E./B.Tech./B.Arch./B.Plan., and II sem B.Sc. Programs for AY-2021-22

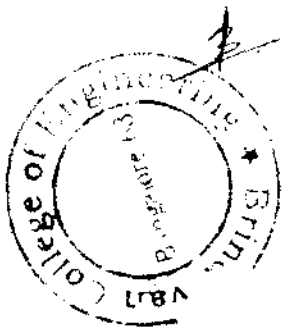
	VI semester B.E./B.Tech (Revised)	VI semester B.Plan. (Revised)	IV Semester MBA	IV semester B.E /B.Tech	II semester B.Sc	I sem B.E./B.Tech./ B.Plan/B Arch (Revised)
Commencement of Semester	04.04.2022	04.04.2022	09.05.2022	16.05.2022	23.05.2022	13.12.2021
Last Working day of Semester	16.07.2022	16.07.2022	20.08.2022	27.08.2022	05.09.2022	10.05.2022
Practical/Viva-Examination	18.07.2022 To 29.07.2022	18.07.2022 To 29.07.2022	----	01.09.2022 To 08.09.2022	06.09.2022 To 09.09.2022	28.05.2022 To 04.06.2022
Theory Examinations	01.08.2022 To 20.08.2022	01.08.2022 To 20.08.2022	22.08.2022 To 14.09.2022	12.09.2022 To 30.09.2022	12.09.2022 To 28.09.2022	12.05.2022 To 27.05.2022
Internship	21.08.2022 To 10.09.2022	21.08.2022 To 10.09.2022	---	---	---	
Internship Viva-Voce/ Project viva	---	---	---	---	---	
Summer Project / Professional training / Organization Study	---	---	----	----	----	
Submission of the report to University	----	---	11.07.2022 To 22.07.2022	---	---	
Commencement of NEXT Semester	19.09.2022	19.09.2022	----	10.10.2022	10.10.2022	06.06.2022

Please Note:

- The academic sessions for EVEN semesters should commence from the **dates** mentioned above.
- All the students of VI semesters B.E./B.Tech. programs have to join the VII semester after completion of their **INTERNSHIP** during the above-mentioned duration.
- **The Institute/Department shall plan to have extra classes to complete the requisite hours o teaching and learning as per the scheme.**
- Faculty should conduct additional tutorial classes in blended mode to solve the doubts of th students.



- Faculty should conduct additional tutorial classes in blended mode to solve the doubts of the students.
- The faculty/staff shall be available to undertake any work assigned by the university.
- Notification regarding the Calendar of Events relating to the conduction of University **Examinations** will be issued by the Registrar (Evaluation) from time to time.
- Academic Calendar **may be modified** based on guidelines/directions issued in the future by MHRD/UGC/AICTE/State Government.
- Academic Calendar is also applicable for **Autonomous Colleges.** In case any changes are to be effected by Autonomous Colleges in the academic terms and examination schedule, they could do so with the approval of the University.



REGISTRAR

ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ
ವಿತಾಯು ಅಧಿನಿಯಮ್ ೧೯೯೪ರ ಅಡಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ
'ಜ್ಞಾನ ಸಂಗಮ' ಮಚ್ಛೆ, ಬೆಳಗಾವಿ-590018

Visvesvaraya Technological University

(The State University of Govt. Karnataka, Established as per VTU Act 1994)
"JnanaSangama" Machhe, Belagavi-590018, www.vtu.ac.in

Dr. A. S. Deshpande B.E., Tech., Ph.D.
Registrar

Phone: (0831) 2498100
Fax: (0831) 2405467

Ref. No. VTU/BGM/BOS/2021-22/ 2759 Date: 26.8.22

Revised-NOTIFICATION

Subject: -Revised Academic Calendar of Even semesters B.E./B.Tech./B.Plan./B.Arch. programs of University regarding...
Reference: Hon'ble Vice-Chancellor's approval dated: 22.08.2022

The revised academic calendar concerned to **even semesters of B.E./B.Tech./B.Plan./B.Arch.** programs of University are hereby notified as mentioned in the attached sheet;

The Principals of Affiliated, Constituent and Autonomous Engineering Colleges are hereby informed to bring the revised academic calendar to the notice of all concerned.

Encl: As mentioned

Sd/-
REGISTRAR

To,

1. The Principals of all affiliated/ constituent /Autonomous Engineering Colleges under the ambit of VTU Belagavi.
2. The chairperson, Department of Mechanical Engineering /Civil Engineering /Computer Science and Engineering and Business Studies of the University.

Copy to.

1. To the Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for information
2. The Registrar (Evaluation), VTU Belagavi for information.
3. The Regional Directors (I/c) of all the regional offices of VTU for circulation.
4. The Director I/c. ITI SMU, VTU Belagavi for information and to make arrangements to upload revised Academic Calendar on the VTU web portal.
5. The Director of Physical Education, VTU Belagavi for information
6. PS to Registrar VTU Belagavi
7. All the concerned Special Officer/s and Caseworker/s of the academic section, VTU, Belagavi

College of Engineering Pangalore

22/8/2022
REGISTRAR

Revised - Academic Calendar for EVEN Semester of UG programs for the year 2021-22

	VI semester B.E./B.Tech.	VI semester B.Arch.	VI semester B.Plan	VIII sem B.Arch	IV Semester B.Arch.	IV semester B. Plan	II semester B.E./B.Tech.	II semester B.Arch/B.Plan
Commencement of EVEN Semester	04.04.2022	04.04.2022	04.04.2022	04.04.2022	11.04.2022	11.04.2022	06.06.2022	06.06.2022
Last Working day of EVEN Semester	16.07.2022	16.07.2022	16.07.2022	23.07.2022	23.07.2022	23.07.2022	09.09.2022	09.09.2022
Practical/Viva-Examination	18.07.2022 To 29.07.2022	18.07.2022 To 29.07.2022	18.07.2022 To 29.07.2022	25.07.2022 To 30.07.2022	25.07.2022 To 30.07.2022	25.07.2022 To 30.07.2022	01.10.2022 To 10.10.2022	01.10.2022 To 10.10.2022
Theory Examinations	01.08.2022 To 20.08.2022	01.08.2022 To 20.08.2022	01.08.2022 To 20.08.2022	01.08.2022 To 20.08.2022	01.08.2022 To 20.08.2022	01.08.2022 To 20.08.2022	12.09.2022 To 30.09.2022	12.09.2022 To 30.09.2022
Internship	21.08.2022 To 10.09.2022	---	21.08.2022 To 10.09.2022		---	---	11.10.2022 To 30.10.2022	
Commencement of ODD semester	**12.09.2022**	**12.09.2022**	**12.09.2022**	**01.09.2022**	**12.09.2022**	**12.09.2022**	**31.10.2022**	**31.10.2022**

Please Note:

- The faculty/staff shall be available to undertake any work assigned by the university.
- Notification regarding the Calendar of Events relating to the conduct of University **Examinations** will be issued by the Registrar (Evaluation) from time to time.
- Academic Calendar **may be modified** based on guidelines/directions issued in the future by MHRD/UGC/AICTE/State Government.
- Academic Calendar is also applicable for **Autonomous Colleges.** In case any changes are to be effected by Autonomous Colleges in the academic terms and examination schedule, they could do so with the approval of the University.

22/8/2022

REGISTRAR

ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ವಿತಾಯು ಅಧಿನಿಯಮ ೧೯೯೪ರ ಅಡಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ

'ಜ್ಞಾನ ಸಂಗಮ' ಮಚ್ಛೆ, ಬೆಳಗಾವಿ-೫೯೦೦೧೮

Visvesvaraya Technological University

(The State University of Govt. Karnataka, Established as per VTU Act 1994)

"JnanaSangama" Machhe, Belagavi-590018, www.vtu.ac.in

Dr. A. S. Deshpande B.E Tech., Ph D.
Registrar

Phone: (0831) 2498100
Fax: (0831) 2405467

Ref. No VTU/BGM/BOS/2021 22/ 2314 Date 10 MAY 2022

Revised-NOTIFICATION

Subject: - Revised Academic Calendar of IV semester B.E./B.Tech., programs of University regarding...

Reference:

1. Hon'ble Vice-Chancellor's approval dated: 05.05.2022
2. VTU/BGM/BOS/2021-22/709, dated 29.04.2022
3. VTU/Exam/2022-2023110, dated 01.05.2022
4. VTU/Exam/QPDS/2022-23/114, dated 01.05.2022

The revised academic calendar concerned **IV semester B.E./B.Tech.,** programs of University are hereby notified as below-

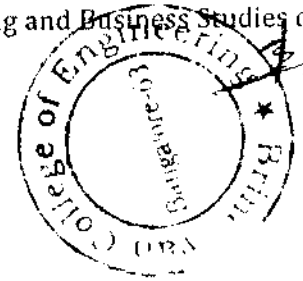
Events	Existing dates	Revised Dates
Commencement of EVEN Semester	16.05.2022	23.05.2022
Last Working day of the EVEN Semester	27.08.2022	03.09.2022
Practical/Viva Examination	01.09.2022 To 08.09.2022	05.09.2022 To 13.09.2022
Theory Examinations	12.09.2022 To 30.09.2022	16.09.2022 To 08.10.2022
Commencement of next ODD Semester	10.10.2022	10.10.2022

The Principals of Affiliated, Constituent and Autonomous Engineering Colleges are hereby informed to bring the academic calendar to the notice of all concerned.

Sd/-
REGISTRAR

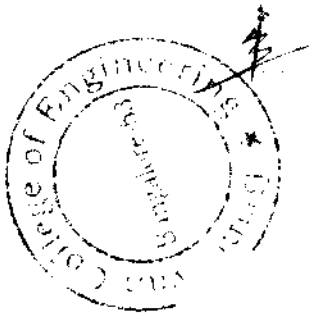
To,

1. The Principals of all affiliated/ constituent /Autonomous Engineering Colleges under the ambit of VTU Belagavi.
2. The chairperson, Department of Mechanical Engineering /Civil Engineering /Computer Science and Engineering and Business Studies of the University.



Copy to.

1. To the Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for info
2. The Registrar (Evaluation), VTU Belagavi for information.
3. The Regional Directors (I/c) of all the regional offices of VTU for circulation.
4. The Director I/c. ITISMU, VTU Belagavi for information and to make arrangement upload Academic Calendar on the VTU web portal.
5. The Director of Physical Education, VTU Belagavi for information
6. PS to Registrar VTU Belagavi
7. All the concerned Special Officer/s and Caseworker/s of the academic section, VT Belagavi



REC

ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ
ಮಾನ್ಯ ಆಡಳಿತಾತ್ಮಕ ಅಧಿಕಾರ ಹೊಂದಿರುವ, ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ವಾಮ್ಯತೆಯನ್ನು ಪಡೆದ ವಿಶ್ವವಿದ್ಯಾಲಯ
"ಜ್ಞಾನ ಸಂಗಮ", ಬೆಳಗಾವಿ-೫೯೦೦೧೮, ಕರ್ನಾಟಕ, ಭಾರತ

Visvesvaraya Technological University
(State University of Government of Karnataka Established as per the VTU Act, 1994)
"Jnana Sangama" Belagavi-590018, Karnataka, India
Phone: (0831) 2498100, Fax: (0831) 2405467, Website: vtu.ac.in

Dr. A. S. Deshpande B.E., M.Tech., Ph.D.
Registrar

Phone: (0831) 2498100
Fax: (0831) 2405467

Ref: VTU/BOS/A9/2020-21 / 2702

Date: 22 SEP 2021

NOTIFICATION

Subject: Commencement of ODD semester of UG-PG programs for the year 2021-22 regarding...
Reference: Hon'ble Vice-Chancellor's Approval dated: 22.09.2022

The academic calendar concerned to ODD semesters of Under-graduate and Post-graduate, programmes of University is hereby notified as below-.

The Principals of Affiliated, Constituent, and Autonomous Engineering Colleges are hereby informed to bring the content of this circular to the notice of all the concerned.

Sd/-
REGISTRAR

Encl: As mentioned above.

To,

1. The Principals of all affiliated/ constituent /Autonomous Engineering Colleges under the ambit of VTU Belagavi.
2. The Chairpersons of all Departments, Centres for PG Studies in Belagavi, Kalaburgi, Muddenahalli, and Mysore.

Copy to.

1. To the Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for information
2. The Registrar (Evaluation), VTU Belagavi for information.
3. The Regional Directors (I/c) of all the regional offices of VTU for circulation.
4. The Special Officer CNC VTU Belagavi for uploading on VTU website
5. PS to Registrar VTU Belagavi
6. All the concerned Special Officer/s and Caseworker/s of the academic section, VTU, Belagavi

REGISTRAR

Academic Calendar for ODD Semester of UG programmes for year 2021-22

	V semester B.E./B.Tech.	V semester B.Arch./ B.Plan.	VII semester B.E./B.Tech.	VII semester B.Plan./B.Arch	IX semester B.Arch	III semester B.E./ B.Tech.	III Semester B.Arch.	III semester B. Plan	I semester B.E./B.Tech.	I semester B.Arch/B.Plan
Commencement of ODD Semester	01.10.2021	01.10.2021	01.10.2021	01.10.2021	01.10.2021	18.10.2021	18.10.2021	18.10.2021		
Last Working day of ODD Semester	31.01.2022	31.01.2022	31.01.2022	31.01.2022	31.01.2022	19.02.2022	19.02.2022	19.02.2022		
Practical Examination	01.02.2022 To 10.02.2022	01.02.2022 To 10.02.2022	01.02.2022 To 10.02.2022	01.02.2022 To 10.02.2022	---	21.02.2022 To 04.03.2022	21.02.2022 To 04.03.2022	21.02.2022 To 04.03.2022		
Theory Examinations	11.02.2022 To 25.03.2022	11.02.2022 To 25.03.2022	11.02.2022 To 25.03.2022	11.02.2022 To 25.03.2022	---	07.03.2022 To 25.03.2022	07.03.2022 To 25.03.2022	07.03.2022 To 25.03.2022	Will be announced later	
Internship	---	---	---	---	---	---	---	---		
Internship Viva Voce/ Project viva	---	---	---	---	---	---	---	---		
Summer Project / Professional training / Organization Study	---	---	---	---	---	---	---	---		
Submission of the report to University	---	---	---	---	---	---	---	---		
Commencement of EVEN Semester	04.04.2022	04.04.2022	04.04.2022	04.04.2022	07.02.2022	11.04.2022	11.04.2022	11.04.2022		

Please Note:

- The academic sessions for ODD semesters should commence from the **dates mentioned** above.
- The Institute needs to function for **six days** a week with additional hours (**Saturday is a full working day**). #if required the college can plan to have extra classes even on Sundays also.
- Faculty should conduction additional tutorial classes ONLINE to solve the doubts of the students.
- The faculty/staff shall be available to undertake any work assigned by the university.
- Notification regarding the Calendar of Events relating to the conduct of University **Examinations** will be issued by the Registrar (Evaluation) from time to time.
- Academic Calendar **may be modified** based on guidelines/directions issued in the future by MHRD/UGC/AICTE/State Government.
- Academic Calendar is also applicable for **Autonomous Colleges.** In case if any changes are to be effected by Autonomous Colleges in the academic terms and examination schedule, they could do so with the approval of the University.
- The offline classes may be conducted either by **staggering** the timings in 02 sessions in a day with 50% capacity for each session or full day session with 50% capacity on alternative days, following all SOPs.
- The college has to conduct offline classes to cover **80%** of the syllabus of the courses; however, **20%** of the syllabus can be covered in virtual (Online) mode. **Attendance** of the students' for offline and online classes is mandatory and record should be maintained and submitted to university whenever informed.
- Students joining to VII semester B.E./B.Tech., should complete the **Internship** before the commencement of the classes.

REGISTRAR

Academic Calendar for ODD Semesters of PG Programmes for Year 2021-22

-------	I semester MBA	I semester M.Tech.	I semester M.Arch	I semester MCA	III semester MCA	III semester M.Tech.	III Semester MBA	III Semester M.Arch.	V Sem MCA (2018 scheme)
Commencement of ODD Semester					01.10.2021	08.11.2021	08.11.2021	22.11.2021	01.10.2021
Last Working day of ODD Semester					31.01.2022	28.02.2022	28.02.2022	19.03.2022	31.01.2022
Practical Examination					01.02.2022 To 05.02.2022	01.03.2022 To 05.03.2022	----	----	01.02.2022 To 05.02.2022
Theory Examinations					07.02.2022 To 23.02.2022	07.03.2022 To 24.03.2022	02.03.2022 To 25.03.2022	21.03.2022 To 31.03.2022	07.02.2022 To 23.02.2022
Internship			Will be announced later		01.03.2022 To 31.03.2022	------	------	-----	01.03.2022 To 31.03.2022
Project Work /Professional training /Organization Study					-----	-----	26.03.2022 To 07.05.2022	-----	-----
Internship Viva Voce/ Project viva					-----	-----	-----	-----	-----
Submission of the report to University					-----	-----	-----	-----	-----
Commencement of EVEN Semester					04.04.2022	04.04.2022	09.05.2022	04.04.2022	04.04.2022

Please Note:

- The academic sessions for ODD semesters should commence from the **dates** mentioned above.
- The Institute needs to function for **six days** a week with additional hours **(Saturday is a full working day).** #if required the college can plan to have extra classes even on Sundays also.
- Faculty should conduction additional tutorial classes ONLINE to solve the doubts of the students.
- The faculty/staff shall be available to undertake any work assigned by the university.
- Notification regarding the Calendar of Events relating to the conduct of University **Examinations** will be issued by the Registrar (Evaluation) from time to time.
- Academic Calendar **may be modified** based on guidelines/directions issued in the future by MHRD/UGC/AICTE/State Government.
- Academic Calendar is also applicable for **Autonomous Colleges.** In case if any changes are to be effected by Autonomous Colleges in the academic terms and examination schedule, they could do so with the approval of the University.
- The offline classes may be conducted either by **staggering** the timings in 02 sessions in a day with 50% capacity for each session or full day session with 50% capacity on alternative days, following all SOPs.
- The college has to conduct offline classes to cover **80%** of the syllabus of the courses, however, **20%** of the syllabus can be covered in virtual (Online) mode. Attendance of the students' offline and online classes is mandatory and record should be maintained and submitted to university whenever informed.
- Students joining to III semesters MBA/M.Tech../ M.Arch and VII semester B.E./B.Tech , should complete the internship before the commencement of the classes.

REGISTRAR

ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

Visvesvaraya Technological University

(State University of Government of Karnataka) Established as per the VTU Act 1994)
"Jnana Sangama" Belagavi-590018, Karnataka, India
Phone: (0831) 2498100
Fax: (0831) 2405467

Registrar

Ref: VTU/BOS/S02/2020-21 / 6335 Date: 15 MAR 2022

Revised – NOTIFICATION (1)

Subject: Revised-Academic Calendar ofI semester B.E./B.Tech./B.Plan./B.Arch., and III semesters B.E./B.Tech. programs for AY 2021-22 regarding...

Reference: Hon'ble Vice-Chancellor's approval dated: 14.03.2022

The academic calendar concerned to I semester B.E./B.Tech./B.Plan /B.Arch and III semester of B.E. / B.Tech.Programs of University is hereby re notified as below-

Events	I semester B.E./B.Tech./	I semester B.Plan./B.Arch.	III semester B.E./B.Tech.
Commencement of ODD Semester	13.12.2021	13.12.2021	18.10.2021
Last Working day of ODD Semester	13.04.2022	13.04.2022	13.04.2022
Practical Examinations	18.04.2022 to 27.04.2022	18.04.2022 to 27.04.2022	16.04.2022 to 23.04.2022
Theory Examinations	28.04.2022 to 20.05.2022	28.04.2022 to 20.05.2022	25.04.2022 to 15.05.2022
Commencement of EVEN Semester	23.05.2022	23.05.2022	16.05.2022

- If any of the above dates are declared to be a holiday, then the corresponding event will come into effect on the next working day.
- Notification regarding the Calendar of Events relating to the conduct of University Examinations will be issued by the Registrar (Evaluation) from time to time.
- Academic Calendar **may be modified** based on guidelines/directions issued in the future by MHRD/UGC/AICTE/State Government.
- Academic Calendar is also applicable for **Autonomous Colleges.** In case if any changes are to be effected by Autonomous Colleges in the academic terms and examination schedule, they could do so with the approval of the University.
- The faculty/staff shall be available to undertake any work assigned by the university.

The Principals of Affiliated, Constituent and Autonomous Engineering Colleges are hereby informed to bring the content of this circular to the notice of all the concerned.

Sd/-
REGISTRAR

To,

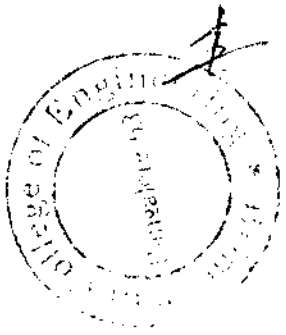
1. The Principals of all affiliated/ constituent /Autonomous Engineering Colleges under the ambit of VTU Belagavi.

Copy to.

1. To the Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for information
2. The Registrar (Evaluation), VTU Belagavi for information.
3. The Regional Directors (I/c) of all the regional offices of VTU for circulation.
4. The Director SMU ITICNC, VTU Belagavi requested to make arrangements touploadAcademic Calendar on the VTU web portal
5. PS to Registrar VTU Belagavi
6. All the concerned Special Officer/s and Caseworker/s of the academic section, VTU, Belagavi

15/8/22
REGISTRAR

15/8/22



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ವಿತಾಯುಅಧಿನಿಯಮ೧೯೮೬ರಅಡಿಯಲ್ಲಿಕರ್ನಾಟಕಸರ್ಕಾರದಿಂದಸ್ಥಾಪಿತವಾದರಾಜ್ಯವಿಶ್ವವಿದ್ಯಾಲಯ ಜ್ಞಾನ

ಸಂಗಮ ಮಚ್ಛೆ, ಬೆಳಗಾವಿ-590018

Visvesvaraya Technological University

(The State University of Govt. Karnataka, Established as per VTU Act 1994)

"JnanaSangama" Machhe, Belagavi-590018, www.vtu.ac.in

Dr. A. S. Deshpande B.E., Tech., Ph.D.
Registrar

Phone (0831) 2498100
Fax. (0831) 2405467

Ref No VTU/BGM/BOS/2021-22/ 149

Date 29 APR 2022

Revised-NOTIFICATION

Subject: -Revised Academic Calendar of I semester B.E./B.Tech./B.Plan./B.Arch. programs of University regarding...

Reference: Hon'ble Vice-Chancellor's approval dated: 08.04.2022

The revised academic calendar concerned **I semester B.E./B.Tech./B.Plan./B.Arch.** programsof University are hereby notified as below-

	Existing dates	Revised dates
Commencementof ODDSemester	13 12 2021	13.12.2021
Last Workingday of the ODDSemester	13.04.2022	30.04.2022
Practical Examination	18 04 2022 To 27 04 2022	02.05.2022 To 10.05.2022
Theory Examinations	28.04 2022 To 20.05.2022	12.05.2022 To 30.05.2022
Commencementof EVEN Semester	23.05.2022	01.06.2022

The Principals of Affiliated, Constituent and Autonomous Engineering Colleges are hereby informed to bring the content of this circular to the notice of all concerned.

Sd/-
REGISTRAR

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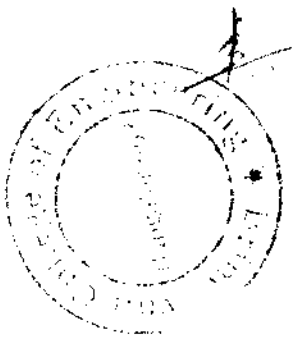
2. The Registrar (Evaluation), VTU Belagavi for information.

3. The Regional Directors (I/c) of all the regional offices of VTU for circulation.
4. The Director SMUTTI, VTU Belagavi for information and to make arrangements to u Academic Calendar on the VTU web portal.
5. The Director of Physical Education, VTU Belagavi for information
6. PS to Registrar VTU Belagavi
7. All the concerned Special Officer/s and Caseworker/s of the academic section, VTU Belagavi



RE

ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

"ಜ್ಞಾನ ಸಂಗಮ", ಬೆಳಗಾವಿ-೫೯೦೦೧೮, ಕರ್ನಾಟಕ, ಭಾರತ

Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act 1994)
"Jnana Sangama" Belagavi 590018, Karnataka, India
Phone (0831) 2498100 Fax (0831) 2405467 Website vtu.ac.in

Dr. A. S. Deshpande B.E., M.Tech., Ph.D.
Registrar

Phone: (0831) 2498100
Fax: (0831) 2405467

Ref: VTU/BOS/SO2/2020-21 /5082

Date: 10 JAN 2022

NOTIFICATION

Subject: Revised-Academic Calendar of III semester B.E./B.Tech. programs for AY 2021-22 regarding...

Reference: EC resolution no. 2.1.4, dated: 04.01.2022

The academic calendar concerned to 3rd semester of B.E. / B.Tech. Programs of University is hereby re-notified as below-

Revised-Academic Calendar for 3rd Semester of B.E./B.Tech. Programs for AY 2021-22

Events	Existing Dates	Revised Dates
Commencement of ODD Semester	18.10.2021	18.10.2021
Last Working day of ODD Semester	19.02.2022	25.03.2022
Practical Examination For regular students	21.02.2022 To 04.03.2022	28.03.2022 To 31.03.2022
Theory Examinations For both regular and lateral entry students	07.03.2022 To 25.03.2022	01.04.2022 To 20.04.2022
Practical Examination For Lateral Entry students		21.04.2022 To 26.04.2022
Commencement of EVEN Semester	11.04.2022	02.05.2022

- The college has to conduct the separate classes for the lateral entry students
- Readmitted students, Change of College opted students and change of Branch opted students may be permitted to appear for the classes along with lateral entry students for syllabus coverage.

- The Institute needs to function for **six days** a week with additional hours (Saturday **is a full working day).** #if required the college can plan to have extra classes even on Sundays also.
- If any of the above dates are declared to be a holiday then the corresponding event will come into effect on the next working day.
- Notification regarding the Calendar of Events relating to the conduct of University **Examinations** will be issued by the Registrar (Evaluation) from time to time.
- Academic Calendar **may be modified** based on guidelines/directions issued in the future by MHRD/UGC/AICTE/State Government.
- Academic Calendar is also applicable for **Autonomous Colleges.** In case if any changes are to be effected by Autonomous Colleges in the academic terms and examination schedule, they could do so with the approval of the University.
- The faculty/staff shall be available to undertake any work assigned by the university.
- The college has to conduct offline classes to cover 80% of the syllabus of the courses, however, 20% of the syllabus can be covered in virtual (Online) mode.
- Attendance of the student's offline/online classes is mandatory and record should be maintained and submitted to university whenever informed.

The Principals of Affiliated, Constituent, and Autonomous Engineering Colleges are hereby informed to bring the content of this circular to the notice of all the concerned.

Sd/-
REGISTRAR

Encl: As mentioned above.

To,

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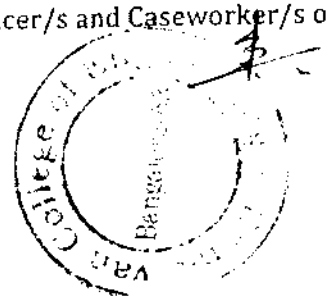

REGISTRAR

Brindavan College of Engineering

CALENDAR OF EVENTS FOR EVEN SEMESTER

Academic Year 2021-2022

Week No.	Month	Day							No. of working Days
		MON	TUE	WED	THU	FRI	SAT	SUN	
1	JUNE	6	7	8	9	10	11	12	
2		13	14	15	16	17	**18**	19	
3		20	21	22	23	24	25	26	
4	JUNE/JULY	27	28	29	30(T1)	1(T1)	2(T1)	3	
5	JULY	4	5	6	7	8	9	10	
6		11	12	13	14	15	**16**	17	
7		18	19	20	21	22	23	24	
8		25(T2)	26(T2)	27(T2)	28	29	30	31	
9	AUGUST	1	2	3	4	5	6	7	
10		8	9	10	11	12	13	14	
11		15	16	17	18	19	**20**	21	
12		22	23	24	25(T3)	26(T3)	27(T3)	28	
13	AUG/SEPT	29	30	31					
Total number working days including Saturdays(except 3rd Sat)		12	11	13	12	12	9		

VTU ACADEMIC CALENDER	II - SEMESTER
Commencement of EVEN Semester	06-06-2022
Last Working Day of EVEN Semester	31-08-2022
Start of Practical Examination	02-09-2022 to 09-09-2022
Start of Theory Examination	12-09-2022 to 30-09-2022
Intra/Inter Internship	01-10-2022 to 20-10-2022

NOTE:1. CCA:-
2. ECA:-
3 Indicates Sunday's & all other general holidays.
4 Indicates third Saturday's.
5. Indicates Internal Assessment (IA) test

Coordinator

Principal

Brindavan College of Engineering

CALENDAR OF EVENTS FOR EVEN SEMESTER

Academic Year 2021-2022

Week No.	Month	Day							No. of working Days
		MON	TUE	WED	THU	FRI	SAT	SUN	
1	MAY	23	24	25	26	27	28	29	
2	MAY/JUNE	30	31	1	2	3	4	5	
3	JUNE	6	7	8	9	10	11	12	
4		13	14	15	16	17	**18**	19	
5		20	21	22	23(T1)	24(T1)	25(T1)	26	
6	JUNE/JULY	27	28	29	30	1	2	3	
7	JULY	4	5	6	7	8	9	10	
8		11	12	13	14	15	**16**	17	
9		18	19	20	21	22	23	24	
10		25(T2)	26(T2)	27(T2)	28	29	30	31	
11	AUGUST	1	2	3	4	5	6	7	
12		8	**9**	10	11	12	13	14	
13		**15**	16	17	18	19	**20**	21	
14		22	23	24	25(T3)	26(T3)	27(T3)	28	
15	AUG/SEPT	29	30	**31**	1	2	3		
Total number working days including Saturdays(except 3rd Sat)		**14**	**14**	**14**	**15**	**15**	**12**		

VTU ACADEMIC CALENDER	IV - SEMESTER
Commencement of EVEN Semester	23-05-2022
Last Working Day of EVEN Semester	03-09-2022
Start of Practical Examination	05-09-2022 to 13-09-2022
Start of Theory Examination	16-09-2022 to 08-10-2022

NOTE: 1. CCA:-
2. ECA:-
3. Indicates Sunday's & all other general holidays.
4. Indicates third Saturday's.
5. Indicates Internal Assessment (IA)test

Coordinator

Principal

BRINDAVAN COLLEGE OF ENGINEERING

CALENDAR OF EVENTS FOR EVEN SEMESTER

Academic Year 2021-2022

Week No.	Month	Day							No. of working Days
		MON	TUE	WED	THU	FRI	SAT	SUN	
1	APRIL	4	5	6	7	8	9	10	
2		11	12	13	14	15	16	17	
3		18	19	20	21	22	23	24	
4	APRIL/MAY	25	26	27	28	29	30	1	
5	MAY	2	3	4	5	6	7	8	
6		9	10	11	12(T1)	13(T1)	14(T1)	15	
7		16	17	18	19	20	21	22	
8		23	24	25	26	27	28	29	
9	MAY/JUNE	30	31	1	2	3	4	5	
10	JUNE	6	7	8	9(T2)	10(T2)	11(T2)	12	
11		13	14	15	16	17	18	19	
12		20	21	22	23	24	25	26	
13	JUNE/JULY	27	28	29	30	1	2	3	
14	JULY	4(T3)	5(T3)	6(T3)	7	8	9	10	
15		11	12	13	14	15	16		
Total number working days including Saturdays(except 3rd Sat)		15	14	15	14	14	11		

VTU ACADEMIC CALENDER	VI - SEMESTER
Commencement of EVEN Semester	04-04-2022
Last Working Day of EVEN Semester	16-07-2022
Start of Practical Examination	18-07-2022 to 29-07-2022
Start of Theory Examination	01-08-2022 to 20-08-2022

NOTE: 1. CCA:-

2. ECA:-

3 Indicates Sunday's & all other general holidays.

4 Indicates third Saturday's.

5. Indicates Internal Assessment (IA) test

Coordinator

Principal

BRINDAVAN COLLEGE OF ENGINEERING

CALENDAR OF EVENTS FOR EVEN SEMESTER

Academic Year 2021-2022

Week No.	Month	Day							No. of working Days
		MON	TUE	WED	THU	FRI	SAT	SUN	
1	APRIL	4	5	6	7	8	9	10	
2		11	12	13	14	15	16	17	
3		18	19	20	21	22	23	24	
4	APRIL/MAY	25	26	27	28	29	30	1	
5	MAY	2	3	4	5	6(T1)	7(T1)	8	
6		9	10	11	12	13	14	15	
7		16	17	18	19	20	21	22	
8		23	24	25	26	27	28	29	
9	MAY/JUNE	30	31	1	2	3(T2)	4(T2)	5	
10	JUNE	6	7	8	9	10	11	12	
11		13	14	15	16	17	18	19	
12		20	21	22	23	24(T3)	25(T3)	26	
13	JUNE/JULY	27	28	29	30				
Total number working days including Saturdays(except 3rd Sat)		13	12	13	12	11	9		

VTU ACADEMIC CALENDER	VIII - SEMESTER
Commencement of EVEN Semester	04-04-2022
Last Working Day of EVEN Semester	30-06-2022
Start of Practical Examination	
Start of Theory Examination	04-07-2022 to 20-07-2022

NOTE:1. CCA:-.
2. ECA:-.
3. Indicates Sunday's & all other general holidays.
4. Indicates third Saturday's.
5. Indicates Internal Assessment (IA) test

Coordinator

Principal

BRINDAVAN COLLEGE OF ENGINEERING

CALENDAR OF EVENTS FOR ODD SEMESTER

Academic Year 2021-2022

Week No.	Month	Day							No. of working Days
		MON	TUE	WED	THU	FRI	SAT	SUN	
1	December	13	14	15	16	17	18	19	
2		20	21	22	23	24	25	26	
3	December/January	27	28	29	30	31	1	2	
4	January	3	4	5	6	7	8	9	
5		10	11	12	13	14	15	16	
6		17	18	19	20	21	22	23	
7		24	25	26	27(FD)	28(FD)	29(FD)	30	
8	January/Feb	31	1	2	3	4	5	6	
9	Febrary	7	8	9	10	11	12	13	
10		14	15	16	17	18	19	20	
11		21	22	23	24(FD)	25(FD)	26(FD)	27	
12	Feb/March	28		2	3	4	5	6	
13	March	7	8	9	10	11	12	13	
14		14	15	16	17	18	19	20	
15		21	22	23	24(FD)	25(FD)	26(FD)	27	
16		28	29	30	31				
Total number working days		16	15	15	16	14	15		

VTU ACADEMIC CALENDER	I - SEMESTER
Commencement of ODD Semester	13-12-2021
Last Working Day of ODD Semester	31-03-2022
Start of Practical Examination	
Start of Theory Examination	

NOTE:1. *CCA:- Dec-22*-National Mathematics Day, Jan-10*-App Development workshop.

2. ECA:-Dec-14*-National energy conservation Day,Dec-31*-Cooking Without Fire, Jan-5*-Debate & Discussion,Jan-8*-Stamp/Currency/Coins Collection, Jan-12*-National Youth Day, Jan-25*-National Tourism Day.

3. * Indicates sunday's & all other general holidays.

4. ' Indicates Internal Assessment (IA) test's.

Co-ordinator

Principal

BRINDAVAN COLLEGE OF ENGINEERING

CALENDAR OF EVENTS FOR ODD SEMESTER

Academic Year 2021-2022

Week No.	Month	Day							No. of working Days
		MON	TUE	WED	THU	FRI	SAT	SUN	
1	October	18	19	20	21	22	23	24	
2		25	26	27	28	29	30	31	
3	November	1	2	3	4	5	6	7	
4		8	9	10	11	12	13	14	
5		15	16	17	18	19	20	21	
6		22	23	24	25	26	27	28	
7	November/December	29	30	1	2	3	4	5	
8	December	6(T1)	7(T1)	8(T1)	9	10	11	12	
9		13	14	15	16	17	18	19	
10		20	21	22	23	24	25	26	
11	December/January	27	28	29	30	31	1	2	
12	January	3	4	5	6(T2)	7(T2)	8(T2)	9	
13		10	11	12	13	14	15	16	
14		17	18	19	20	21	22	23	
15		24	25	26	27	28	29	30	
16	January/Feb	31	1	2	3	4	5	6	
17	Febrary	7	8	9	10(T3)	11(T3)	12(T3)	13	
18		14	15	16	17	18	19		
Total number working days including 2nd/4th/5th Saturdays		16	17	15	18	16	9		

VTU ACADEMIC CALENDER	III - SEMESTER
Commencement of ODD Semester	18-10-2021
Last Working Day of ODD Semester	19-02-2022
Start of Practical Examination	21-02-2022 to 04-03-2022
Start of Theory Examination	07-03-2022 to 25-03-2022

NOTE:1. *CCA:- Oct-27*-Online Quiz, Nov-08*-Debugging, Nov-10*-Transport day, Nov-25* & 27*- Technical Events, Dec-2*National Pollution control Day, Dec-22*-National Mathematics Day, Jan-10*-App Development workshop.

2. ECA:- Oct-5*-World Wild Life Week, Oct-11*-Girl Child Day , Oct-22*-Technical Event, Nov-17*-World Student Day,Nov-26*-Environmental Activity, Nov-29*- National Electronic's Day, Dec-2*-Computer Literacy Day, Dec-11*-Talent Hunt, Dec-14*-National energy conservation Day, Dec-31*-Cooking Without Fire, Jan-5*-Debate & Discussion,Jan-8*-Stamp/Currency/Coins Collection, Jan-12*-National Youth Day, Jan-25*-National Tourism Day.

3. * Indicates sunday's & all other general holidays.

4. Indicates first Saturday's & third Saturday's.

5. Indicates Internal Assessment (IA) test's.

Co-ordinator

Principal

BRINDAVAN COLLEGE OF ENGINEERING

CALENDAR OF EVENTS FOR ODD SEMESTER

Academic Year 2021-2022

Week No.	Month	Day							No. of working Days
		MON	TUE	WED	THU	FRI	SAT	SUN	
1	October					1	2	3	
2		4	5	6	7	8	9	10	
3		11	12	13	14	15	16	17	
4		18	19	20	21	22	23	24	
5		25	26	27	28	29	30	31	
6	November	1	2	3	4	5	6	7	
7		8	9	10	11(T1)	12(T1)	13(T1)	14	
8		15	16	17	18	19	20	21	
9		22	23	24	25	26	27	28	
10	November/December	29	30	1	2	3	4	5	
11	December	6	7	8	9	10	11	12	
12		13(T2)	14(T2)	15(T2)	16	17	18	19	
13		20	21	22	23	24	25	26	
14	December/January	27	28	29	30	31	1	2	
15	January	3	4	5	6	7	8	9	
16		10	11	12	13	14	15	16	
17		17	18	19	20(T3)	21(T3)	22(T3)	23	
18		24	25	26	27	28	29	30	
19		31							
Total number working days including 2nd/4th/5th Saturdays		17	16	13	16	15	8		

VTU ACADEMIC CALENDER	V/VII - SEMESTER
Commencement of ODD Semester	01-10-2021
Last Working Day of ODD Semester	31-01-2022
Start of Practical Examination	01-02-2022 to 10-02-2022
Start of Theory Examination	11-02-2022 to 25-03-2022

NOTE:1. CCA:- Oct-27*-Online Quiz, Nov-08*-Debugging, Nov-10*-Transport day, Nov-25* & 27*- Technical Events, Dec-2*National Pollution control Day, Dec-22*-National Mathematics Day, Jan-10*-App Development workshop.

2. ECA:- Oct-5*-World Wild Life Week, Oct-11*-Girl Child Day , Oct-22*-Technical Event, Nov-17*-World Student Day,Nov-26*-Environmental Activity, Nov-29*- National Electronic's Day, Dec-2*-Computer Literacy Day, Dec-11*-Talent Hunt, Dec-14*-National energy conservation Day, Dec-31*-Cooking Without Fire, Jan-5*-Debate & Discussion,Jan-8*-Stamp/Currency/Coins Collection, Jan-12*-National Youth Day, Jan-25*-National Tourism Day.

3. * Indicates sunday's & all other general holidays.

4. Indicates first Saturday's & third Saturday's.

5 Indicates Internal Assessment (IA) test's.

Co-ordinator

Principal

Brindavan College of Engineering

CALENDER OF EVENTS FOR ODD SEMESTER MCA(I Sem)

Academic Year 2021-2022

No. Of Week	Month	Day							No. of working Days	Activities
		MON	TUE	WED	THU	FRI	SAT	SUN		
1	FEB	[illegible]	[illegible]	16	[illegible]	[illegible]	[illegible]	20	5	14*-commencement of even semester
2		21	22	23	24	25	26	27	6	
3	FEB/MAR	28	1H	2	3	4	5	6	5	1-Maha Shivaratri
4	MAR	7	8	9	10	11	12	13	6	
5		14	15	16	17	18	19	20	5	
6		21	22	23	24	25	26	27	6	
7	MAR/APRIL	28	29	30	31	1	2H	3	5	2-Ugadi
8	APRIL	4	5	6T1	7T1	8T1	9T1	10	6	T1-First Internal Test
9		11	12	13	14H	15H	16	17	3	14-Ambedkar Jayanti 15-Good Friday
10		18	19	20	21	22	23E	24	6	23-Dept Event
11	APRIL/MAY	25	26	27	28	29	30	1	6	
12	MAY	2	3H	4	5T2	6T2	7T2	8	6	3-Ramzan Eid Basavajayanti T2-Second Internal Test
13		9T2	10	11	12	13	14	15	6	10 & 11workshop
14		16	17	18	19	20	21	22	5	
15		23T3	24T3	25T3	26T3	27T3	28T3	29	6	T3- Third Internal Test
16		30	31						2	31st- Last Working Day
Total number of working days		16	15	15	14	14	10		84	

VTU ACADEMIC CALENDER	I SEMESTER
Commencement of Even Semester	14.02.2022
Last Working Day of Even Semester	31.05.2022
Start of Practical Examination	01.06.2022
Start of Theory Examination	06.06.2022

Coordinator

HOD

Principal

Brindavan College of Engineering
Bangalore-560 063

BRINDAVAN COLLEGE OF ...

CALENDER OF EVENTS FOR ODD SEMESTER (III SEM)

Academic Year 2021-2022

Week No.	Month	Day							No. of working Days	Activities
		MON	TUE	WED	THU	FRI	SAT	SUN		
1	October					1	2		1	2-Gandhi Jayanthi
2		4	5	6	7	8	9		5	6-Mahalaya Amavasya
3		11	12	13	14	15	16		3	14-Ayuda Pooja 15-Vijaya Dhasami/Dussehra 16-Third Saturday
4		18	19	20	21	22	23		4	19-Id-milad 20-Valmiki Jayanthi
5		25	26	27	28	29	30		6	
6	November	1	2	3	4	5	6		2	1-Kannada Rajyothava 3-Narakachathurdhi 5-Balipadyami 6-First Saturday
7		8	9	10	11(T1)	12(T1)	13(T1)		6	T1-First Internals Assesment Test
8		15	16	17	18	19	20		5	20-Third Saturday
9		22	23	24	25	26	27		5	22-Kanakadasa Jayanthi.
10	November/ December	29	30	1	2	3	4		5	4-First Saturday
11	December	6	7	8	9	10	11		6	
12		13(T2)	14(T2)	15(T2)	16	17	18		5	T2-Second Internals Assesment Test *18-Third Saturday
13		20	21	22	23	24	25		5	25-Christmas
14	DEC/JAN	27	28	29	30	31	1		5	1-First Saturday
15	January	3	4	5	6	7	8		6	
16		10	11	12	13	14	15		4	14- Makara sankranthi 15-Third Saturday
17		17	18	19	20(T3)	21(T3)	22(T3)		6	T3-Third Internals Assesment Test
18		24	25	26	27	28	29		5	26-Republic day
19	JAN/FEB	31							5	
Total number of working days including 2nd/4th/5th Saturdays		17	17	13	16	15	8		86	

VTU ACADEMIC CALENDER	III- SEMESTER
Commencement of ODD Semester	10/1/2021
Last Working Day of ODD Semester	1/31/2022
Start of Practical Examination	1/02/2022 to 05/02/2022
Start of Theory Examination	07/02/2022 to 23/02/2022

Manisha
Co-ordinator

Asha
HOD

Principal
Brindavan College of Engineering
Bangalore-560 063

Brindavan College of Engineering

Department of Mechanical Engineering

3rd Semester ME **Room No:203**

TIME TABLE

(Academic Year 2021-22 ODD SEM) [With effect from 01/10/2021]

DAY/TIME	9.00-10.00	10.00-11.00	11.00-11.15	11.15-12.15	12.15-1.15	1.15-2.00	2.00-3.00	3.00-4.00	4.00-5.00
MONDAY	BTD	MCW	TEA BREAK	M3	MMM	LUNCH BREAK	MSM	MOM	LIBRARY
TUESDAY	M3	BTD		MOM	MMM		MMM (A1)		DIP MATHS
WEDNESDAY	MSM	MMM		MOM	TE		M3	CPH	WEBINAR/ DIP MATHS
THURSDAY	BTD	MCW		MOM	TUTORIAL		F&F LAB (A1)		DIP MATHS
FRIDAY	MSM	BTD		M3	MCW		TUTORIAL		PROCTORING
SATURDAY	MSM	MMM		MOM	TUTORIAL		MCW	SPORTS	

Subject Name with Code		Name of the Faculty
Engineering Mathematics-III(M-III)	18MAT31	Prof. Ajith
Mechanics of Material (MOM)	18ME32	Dr. Varaprasad kaviti
Basic Thermodynamics (BTD)	18ME33	Prof. Manjunath a c
Matarial Science (MSM)	18ME34	Prof. Azeem pasha
Metal Casting & Welding(MCW)	18ME35B	Prof. Veena
Mechanical Measurement & Metrology(MMM)	18ME36B	Dr. Tilak S R
Constitution of india, professional ethics (CPH)	18CPC39	Dr. Bramhanand
Mechanical Measurement and Metrology lab (MMM)	18ME37B	A1 =Prof.Sachudanand
Foundry & Forging lab (F&F)	18ME37A	A1 =Prof. Sachudanand

Coordinator

HoD

Principal

Brindavan College of Engineering

Department of Mechanical Engineering

5th Semester ME **Room No:204**

TIME TABLE

(Academic Year 2021-22 ODD SEM) [With effect from 01/10/2021]

DAY/TIME	9.00-10.00	10.00-11.00	11.00-11.15	11.15-12.15	12.15-1.15	1.15-2.00	2.00-3.00	3.00-4.00	4.00-5.00
MONDAY	TURBO	DME-1	TEA BREAK	FPE	TUTORIAL	LUNCH BREAK	EC LAB/FM LAB (A1/A2)		
TUESDAY	DME-1	M&E		TURBO	TUTORIAL		OM	DOM	LIBRARY
WEDNESDAY	OM	DOM		FPE	TE		EC LAB/FM LAB (A2/A1)		WEBINAR
THURSDAY	M&E	FPE		DOM	EVS		OM	AICTE ACTIVITIES	
FRIDAY	DOM	DME-1		M&E	FPE		M&E	TUTORIAL	LIBRARY
SATURDAY	TURBO	DME-1		TURBO	OM		TUTORIAL	SPORTS	

Subject Name with Code		Name of the Faculty
Management & Economics (M&E)	18ME51	Prof. Azeem Pasha
Design of Machine Element-1 (DME-1)	18ME52	Prof. Shuaib Pasha
Dynamics of Machine(DOM)	18ME53	Prof. Hasansab Jamadar
Turbo Machine (TURBO)	18ME54	Prof. Harisha P
Fluid Power Engg(FPE)	18ME55	Prof. Harisha P
Operation Management (OM)	18ME56	Prof. Sachudanand
Environment Study	18CIV59	Dr. Bramhanand
Fluid Mechanics and Machinery lab (FM)	18MEL57	A1= Prof. Harisha P A2= Prof. Harisha P
Enregy lab (EC)	18MEL58	A1= Prof. Manjunath A C A2= Prof. Manjunath A C

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Brindavan College of Engineering

Department of Mechanical Engineering

7th Semester ME (15 & 17 Scheme) **Room No:205& 206**

TIME TABLE

(Academic Year 2021-22 ODD SEM) [With effect from 01/10/2021]

DAY/TIME	9.00-10.00	10.00-11.00	11.00-11.15	11.15-12.15	12.15-1.15	1.15-2.00	2.00-3.00	3.00-4.00	4.00-5.00
MONDAY	MCS	CE	TEA BREAK	EE	TRIBO	LUNCH BREAK	DESIGN/CIM LAB(A1/A2)		
TUESDAY	FPS	CE		TRIBO	MCS		PROJECT PHASE1		SPORTS
WEDNESDAY	CE	FPS		EE	TE		DESIGN/CIM LAB(A2/A3)		WEBINAR
THURSDAY	TRIBO	MCS		FPS	TUTORIAL		PROJECT PHASE1		LIBRARY
FRIDAY	EE	FPS		MCS	LIBRARY		DESIGN/CIM LAB(A3/A1)		
SATURDAY	EE	CE		TUTORIAL	PROCTORING		PROJECT PHASE1		

Subject Name with Code		Name of the Faculty
Energy Engineering (EE)	15ME71/17ME71	Dr. Tilak S R
Fluid Power System(FPS)	15ME72/15ME72	Prof. Harisha P
Control Engineering (CE)	15ME73/17ME73	Dr. Varaprasad Kaviti
Tribology (TRIBO)	15ME742/17ME742	Dr. Bharath V G
Machatronics (MCS)	15ME753/17ME753	Prof. Hasansab Jamadar
Design lab	15MEL76/17MEL76	A1=Prof. Hasansab Jamadar A2=Prof. Shuaib A3=Prof. Hasansab Jamadar
CIM lab	15MEL77/17MEL77	A1=Prof. Veena A2= Prof. Shuaib Pasha A3= Prof.Azeem Pasha
Project Phase-1	15MEP78/17MEP78	Dr. Tilak S R

Coordinator

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Brindavan College of Engineering

Department of Mechanical Engineering

7th Semester ME (18 Scheme) **Room No:205**

TIME TABLE

(Academic Year 2021-22 ODD SEM) [With effect from 01/10/2021]

DAY/TIME	9.00-10.00	10.00-11.00	11.00-11.15	11.15-12.15	12.15-1.15	1.15-2.00	2.00-3.00	3.00-4.00	4.00-5.00
MONDAY	MCS	CE	TEA BREAK	OE	TUTORIAL	LUNCH BREAK	DESIGN/CIM LAB(A1/A2)		
TUESDAY	TQM	CE		CADM	MCS		OE	SPORTS	
WEDNESDAY	CE	CADM		OE	TQM		DESIGN/CIM LAB(A2/A3)		WEBINAR
THURSDAY	CADM	MCS		TUTORIAL	TUTORIAL		OE	TQM	
FRIDAY	CADM	TE		MCS	LIBRARY		DESIGN/CIM LAB(A3/A1)		
SATURDAY	TQM	CE		TQM	PROCTORING		PROJECT PHASE1		

Subject Name with Code		Name of the Faculty
Control ENGG (CE)	18ME71	Dr. Varaprasad Kaviti
Computwer Aided Design & Manufacturing (CADM)	18ME72	Prof. Shuaib Pasha
Total Quality Management (TQM)	18ME734	Prof. Hasansab Jamadar
Mechatronics (MCS)	18ME744	Prof. Hasansab Jamadar
Python Application Programming(OE)	18CS752	Prof. Kiran
Design Lab	15MEL76/17MEL76/ 18MEL77	A1=Prof. Hasansab Jamadar A2=Prof. Shuaib Pasha A3=Prof. Hasansab Jamadar
CIM Lab	15MEL77/17MEL77/ 18MEL76	A1=Prof. Veena A2= Prof. Shuaib Pasha A3= Prof.Azeem Pasha
ProjecT Phase-1	15MEP78/17MEP78	Dr. Tilak S R

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Brindavan College of Engineering

Dwarakanagar, Bagalur Main Road, Yelahanka, Bengaluru – 560063

Affiliated to VTU Belagavi, Approved by AICTE, New Delhi, India, Accredited 'A' level by NAAC

DEPARTMENT OF ELECTRONICS AND COMMUNICATIONENGINEERING

TIME TABLE

Academic Year : 2021 - 22 **Sem :4th** **Sec :** **Class Coordnator : Prof.Boban Mathews** **W.E.F :23/05/2022**

DAY/TIME	9.00-10.00	10.00-11.00	11.00-11.15	11.15-12.15	12.15-1.15	1.15-2.00	2.00-3.00	3.00-4.00	4.00-5.00
MONDAY	CS	AC	TEA BREAK	CAPS	ESL	LUNCHBREAK	AC LAB-B2 / MC LAB-B1 [SNV+SF/BM+PMJ]		
TUESDAY	CAPS	CS		AC	ESL		VK/AK		MATH-DIP/ MENTORING
WEDNESDAY	S&S	ESL		CAPS [TUTORIAL]	CS		AC LAB-B1/ MC LAB-B2 [SNV+MKB/BM+SF]		MATH-DIP/ LIBRARY
THURSDAY	MC	CS		S&S	WEBINAR		AC [TUTORIAL]	MC	MATH-DIP
FRIDAY	AC	S&S		MC	ESL		CAPS [TUTORIAL]	CS	SPORTS
SATURDAY	AC [TUTORIAL]	MC		S&S	CLUB ACTIVITY		AICTE ACTIVITY		

Course Name	Course Code	L-T-P	Credits	Name of the Faculty
Complex Analysis, Probability and Statistical Methods [CAPS]	18MAT41	2-2-0	3	Prof. Shruti A [SA]
Analog Circuits [AC]	18EC42	3-2-0	4	Prof. Venkatesh S N [SNV]
Control Systems [CS]	18EC43	3-0-0	3	Prof. Yoganandini A P [YAP]
Engineering Statistics & Linear Algebra [ESLA]	18EC44	3-0-0	3	Prof. Ajith P S [APS]
Signals & Systems [S&S]	18EC45	3-0-0	3	Dr.Puttamadegowda J [PMJ]
Microcontroller [MC]	18EC46	3-0-0	3	Prof. Boban Mathews [BM]
Microcontroller Laboratory [MC LAB]	18ECL47	0-2-2	2	BM+PMJ+SF
Analog Circuits Laboratory [AC LAB]	18ECL48	0-2-2	2	SNV + Prof. Manjula K B [MKB]
Vyavaharika Kannada [VK] / Aadalitha Kannada [AK]	18KVK49/18KAK49	0-2-0	1	Prof.Aswath Reddy / Prof. Vidya M
Additional Mathematics [DIP Math]	18MATDIP41	1-0-0	2	Prof. Shruthi A

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TIME TABLE

Academic Year : 2021 - 22 **Sem :6th** **Sec :** **Class Coordnator : Prof.Manjula K B** **W.E.F :04/04/2022**

DAY/TIME	9.00-10.00	10.00-11.00	11.00-11.15	11.15-12.15	12.15-1.15	1.15-2.00	2.00-3.00	3.00-4.00	4.00-5.00
MONDAY	OE	DC		ES	PAP	LUNCHBREAK	PAP	DC [TUTORIAL]	SPORTS
TUESDAY	ES LAB-B1 / COMMUNICATION LAB-B2 [SF+MNP/SNV+PMJ]				DC		PAP	M&A [TUTORIAL]	MENTORING
WEDNESDAY	M&A	ES	TEA BREAK	M&A [TUTORIAL]	OE		MINI PROJECT		
THURSDAY	PAP	ES [TUTORIAL]		DC	WEBINAR		ES LAB-B2 / COMMUNICATION LAB-B1 [SF+MNP/MKB+PMJ]		
FRIDAY	ES	M&A		PAP	M&A [TUTORIAL]		DC [TUTORIAL]	ES [TUTORIAL]	OE
SATURDAY	AICTE ACTIVITY			AICTE ACTIVITY			CLUB ACTIVITY		

Course Name	Course Code	L-T-P	Credits	Name of the Faculty
Digital Communication [DC]	18ES61	3-2-0	4	Dr.Puttamadegowda J [PMJ]
Embedded Systems [ES]	18EC62	3-2-0	4	Prof. Mamatha N P [MNP]
Microwave & Antennas [M&A]	18EC63	3-2-0	4	Prof. Manjula K B [MKB]
Python Application Programming [PAP]	18EC646	3-0-0	3	Prof. Shama Firdous [SF]
Open Elective [OE]	18EC65	3-0-0	3	Prof. Mamatha B [MB]
Embedded Systems Laboratory [ESL]	18ECL66	0-2-2	2	SS + MNP
Communication Laboratory	18ECL67	0-2-2	2	PMJ + Prof. Venkatesh S N [SNV]
Mini Project	18ECMP68	0-0-2	2	Prof. Yoganandini A P [YAP]

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TIME TABLE

Academic Year : 2021 - 22 **Sem :8th** **Sec :** **Class Coordnator : Prof.Shama Firdous** **W.E.F : 4/04/2022**

DAY/TIME	9.00-10.00	10.00-11.00	11.00-11.15	11.15-12.15	12.15-1.15	1.15-2.00	2.00-3.00	3.00-4.00	4.00-5.00
MONDAY	WCC	NS	TEA BREAK	WCC	MENTORING	LUNCHBREAK	PROJECT WORK		SPORTS
TUESDAY	NS [MKB]	WCC [SF]		NS	LIBRARY		TECHNICAL SEMINAR		CLUB ACTIVITY
WEDNESDAY									
THURSDAY									
FRIDAY									
SATURDAY									

Course Name	Course Code	L-T-P	Credits	Name of the Faculty
Wireless and Cellular Communication [WCC]	18EC81	3-0-0	3	Prof.Shama Firdous [SF]
Network Security [NS]	18EC821	3-0-0	3	Prof.Manjula K B [MKB]
Project work phase-2	18ECP83	0-0-2	8	Dr.K Chenna Reddy [KCR]
Technical seminar	18ECS84	0-0-2	1	Prof.Mamatha N P [MNP]

TTO

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Brindavan College of Engineering

Dwarakanagar, Bagalur Main Road, Yelahanka, Bengaluru – 560063

Affiliated to VTU Belagavi, Approved by AICTE, New Delhi, India, Accredited 'A' level by NAAC

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TIME TABLE

Academic Year : 2021 - 22 **Sem : 8th** **Sec :** **Class Coordnator : Prof.Mamatha N P** **W.E.F :04/04/2022**

DAY/TIME	9.00-10.00	10.00-11.00	11.00-11.15	11.15-12.15	12.15-1.15	1.15-2.00	2.00-3.00	3.00-4.00	4.00-5.00
MONDAY	WCL [MNP]	ML [BM]	TEA BREAK	FON [MKB]	ML [BM]	LUNCHBREAK	WCL [MNP]	FON [MKB]	MENTORING
TUESDAY	ML [BM]	WCL [MNP]		ML [BM]	FON [MKB]		FON [MKB]	WCL [MNP]	SPORTS
WEDNESDAY	PROJECT WORK			PROJECT WORK			PROJECT WORK		LIBRARY
THURSDAY	TECHNICAL SEMINAR			TECHNICAL SEMINAR					
FRIDAY									
SATURDAY									

Course Name	Course Code	L-T-P	Credits	Name of the Faculty
Wireless Cellular and Lte 4G Broadband [WCL]	17EC81	4-0-0	4	Prof.Mamatha N P [MNP]
Fiber Optics and Networks [FON]	17EC82	4-0-0	4	Prof.Manjula K B [MKB]
Machine Learning [ML]	17EC834	3-0-0	3	Prof.Boban Mathews [BM]
Project Work	17ECP85	0-0-6	6	Dr. K Chenna Reddy [KCR]
Seminar	17ECS86	0-0-4	1	Prof.Mamatha N P [MNP]

TTO

HoD

Principal

Bridge Course Classes for Lateral entry 2021-22 (odd)

REGISTER OF ATTENDANCE & FEES

FOR THE MONTH OF December 2021-22

Name of the Institute Brindavan College of Engineering

Session Dip Maths Place Bangalore-63

Sl. No	Admission No		1 6/12	2 7/12	3 8/12	4 9/12	5 10/12	6 13/12	7 14/12	8 15/12	9 16/12	10 17/12	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	No. of days present	Attendance	FEES Rs.	P.	Date of payment
	1BSCV																																		
	21A00	Angel	1	2	3	4	A	5	6	7	A	8																								
	401	J. Jerald	1	2	3	4	5	6	7	8	9	10																					80			
	402	Naveen. K	1	2	3	4	5	6	7	8	9																						100			
	1BSME																																90			
	21A00	Madhan. C.N	1	2	3	4	5	6	7	8	9																									
	401	Madan Mohan Reddy	1	2	3	4	5	6	7	8	9																						90			
	402	Sumanth Gowda. N	1	2	3	4	5	6	7	8	9																						90			
	403	Tahseen Ahmad	1	2	3	4	5	6	7	8	9	10																					90			
	404	Teju Kumar R	1	2	3	4	5	6	7	8	9																						100			
	405	Varun Kumar. N	1	2	3	4	5	6	7	8	9																						90			
	1BOEC																																90			
	400	Mahmood Farhan Naaz	1	2	A	3	4	5	A	6	7	8																									
	401	R. Rekith Kumar	1	2	3	4	5	6	7	8	9	10																					80			
																																	100			

Dept. of Mathematics

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COLLEGE OF ENGINEERING

Remedial Classes for Lateral Entry 2021-22 (Odd)

REGISTER OF ATTENDANCE & FEES

FOR THE MONTH OF March / April 2021-22

Name of the Institute: Ramaiah College of Engineering — Dept: Dept Maths — Place: Bangalore - 54

Sl. No.	Admission No.	Name	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	No. of days present	No. of days Absent	% of Attendance
			1/3	1/4	1/5	1/6	1/7	1/8	1/9	2/3	2/3	2/5	2/6	2/8	1/4	1/4	1/5	1/6	1/7	1/8																
Section 4CC		Rahul Kumar	1	2	3	4	5	6	7	8	9	10	11			13	14	15	16															89		
Section 4CC		Madhan CN	1	2	3	4	5	6	7	8	9	10	11			13	14	15	16															89		
4CC		Madan Mohan Reddy	1	2	3	4	5	6	7	8	9	10	11			13	14	15	16															89		
4CC		Teja Kumara R	1	2	3	4	5	6	7	8	9	10	11			13	14	15	16															89		
4CC		Varun Kumar	1	2	3	4	5	6	7	8	9	10	11			13	14	15	16	17														94		
Section 4CC		Anjali K	1	2	3	4	5	6	7	8	9	10	11			13	14	15	16															89		
4CC		J. Jennold Lee	1	2	3	4	5	6	7	8	9	10	11			13	14	15	16	17														94		

Dept. of Mathematics
Sec ~~F~~ C
HOD

COLLEGE OF ENGINEERING

Remedial Class Sl.no 1 Lateral Entry Students (Even)

REGISTER OF ATTENDANCE & FEES

FOR THE MONTH OF Aug/Sep 2022

Name of the Institute Brindavan College of Engineering Section Lateral entry Place Bangalore

Sl. No.	Admission No.	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	No. of days present	%	Rs.	P.	Date of payment
101		Rahul Kumar																															89				
102		[illegible] C N																															89				
103		Jagadeesh Mohan Reddy																															83				
104		Vijaykumar K																															89				
105		Vinay Kumar																															94				
106		[illegible]																															89				
107		[illegible]																															96				

Dept of Mathematics
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Sign

Bridge Course for Lateral Entry Students 2021-22 (Even)

REGISTER OF ATTENDANCE & FEES

FOR THE MONTH OF May 2022

Name of the Institute BRCE

Section Lateral entry Place Bangalore

Sl. No	Admission No.		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	% of days present attendance	Rs	P	Date of payment
	180521[illegible]	MD. Farhaan Maaz	1	2	3	4		5	6																									75			
2	401	Rohit Kumar	1	2		3	4	5	6	7																								88			
3	180521[illegible]300	Madhan C N			2	3		4	5	6	7																							88			
4	401	Madan Mohan [illegible]			2	3	4		5	6	7	8																						100			
5	402	Sumanth Gowda V	1	2	3	4		5	6	7	8																							100			
6	403	Tahrim Ahmed	1			3	4	5	6	8																								88			
7	404	Tejakumar S	1	2	3	4		5	6	7	8																							100			
8	405	Varun Kumar N	1	2	3			5	6	7																								88			
9	180521[illegible]CV300	Anjali K	1		2	3	4	5	6	7																								88			
10	401	J Jerold [illegible]	1	2	3	4		5	6	7	8																							100			
11	402	J Varun K	1	2	3	4	5	6		7																								88			

Dept of Mathematics

Head

Sr

Brindavan College of Engineering, Bengaluru 560 063

DEPARTMENT OF MECHANICAL ENGINEERING

INTERNAL ASSESSMENT TEST- II

ACADEMIC YEAR 2021-2022

USN										

Sem/Sec	3rd	Subject	18ME33	Subject	BASIC TTHERMODYNAMICS	Duration	1 Hr
Date	12/1/2022	code		name		Max.Marks	30

COURSE OUTCOMES

CO3: Apply the knowledge of entropy, reversibility and irreversibility to solve numerical problems and apply 1st law of thermodynamics to closed and open systems and determine quantity of energy transfers and change in properties.

Note: Answer any 1 full question from Q.no 1 & 2, 1 full question from Q.no 3 & 4.
All questions carries equal marks

The following are the knowledge levels according to Bloom's taxonomy

L1 Remember **L2 Understand** **L3 Apply** **L4 Analyse** **L5 Evaluate** **L6 Create**

Q. NO		SYLLABUS: (Module 3 & 4) / QUESTION	M	Knowledge level	CO
1	a)	State Kelvin plank & Clausius statement for II law of thermodynamics with block diagram.	6.5	L1	CO3
	b)	What is PMM-2? P.T violation of Kelvin plank statement leads to violation of Clausius statement.	8.5	L1, L2	CO3
		OR			
2	a)	Define i) Thermal reservoir ii) source iii) sink iv) COP of heat engine & refrigerator.	6.5	L1	CO3
	b)	A reversible engine operates b/w 3 heat engines reservoirs 1000k, 800k & 600k & rejects heat to a reservoir at 300k the engine develops 10kw & rejects 412kJ/min. If heat supplied by the reservoir at 100k is 60% of heat supplied by the reservoir at 600k.Find quantity of heat supplied by each reservoir.	8.5	L1, L2	CO3
3	a)	Derive the equation for change in entropy ~~using~~ for polytrophic process & Isothermal process.	8	L1, L2	CO3
	b)	State & Prove Clausis Inequality.	7	L1,L3	CO3
		OR			
4	a)	Define entropy & P.T Entropy is a property of a system.	7	L1, L2	CO 3
	b)	A lump of steel weighting 30kg at a temperature of 4270c is dropped in 150kg of oil at 27^0c. The specific heat of steel and oil are 0.5 kJ/kgK and 2.5KJ/kgK respectively. Estimate the entropy change of steel, the oil system consisting of oil lump of steel.	8	L1, L2	CO 3

10/1/2022	10/1/2022		
Mr.Manjunath A C	**Mr. Manjunath A C**	**Mr.Harisha P**	**Dr. R Varaprasad K**
Faculty name & signature	Course co-ordinator	Reviewer	HOD

College of Engineering * Brin... Bangalore-63 USA

DEPARTMENT OF MECHANICAL ENGINEERING

INTERNAL ASSESSMENT TEST- II

ACADEMIC YEAR 2021-2022

USN										

Sem/Sec	3rd	Subject	18ME33	Subject	BASIC THERMODYNAMICS	Duration	1 Hr
Date	12/1/2022	code		name		Max.Marks	30

COURSE OUTCOMES

CO3: Apply the knowledge of entropy, reversibility and irreversibility to solve numerical problems and apply 1st law of thermodynamics to closed and open systems and determine quantity of energy transfers and change in properties.

Scheme of evaluation

Q. NO		SYLLABUS: (Module 3 & 4) QUESTION	Marks
1	a	State Kelvin plank & Clausius statement for II law of thermodynamics with block diagram	6.5
	b	What is PMM I? -2 marks P.T violation of Kelvin plank statement leads to violation of Clausius statement – 6.5 marks	8.5
2	a	i) Thermal reservoir ii) source iii) sink- 3marks ii) iv) COP of heat engine & refrigerator. – 3.5 marks	6.5
	b	W=600kj/min- 0.5 marks Q2= (1012-1.6Q1) 2marks Q1=405 kj/min 2marks Q2= 364kj/min 2marks Q3= 243kj/min 2marks	8.5
3	a	Derive the equation for change in entropy using polytrophic process- 4 marks & Isothermal process.- 4 marks	8
	b	Statement – 1 mark Prove Clausis Inequality. – 6marks	7
4	a	Define entropy – 1 mark P.T Entropy is a property of a system.- 6marks	7
	b	Tf=315.38k – 3marks ΔS_{steel} =11.95kj/kgk – 2marks ΔS_{oil} =18.74kj/kgk – 2marks ΔS_{total} = 30.69 kj/kgk – 1mark	8

College of Engineering Bangalore-63

USN	1	3	0	2	0	3	E	0	0	3

Sem / Sec.	IIIrd A

Brindavan College of Engineering

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Dwarakangar, Bagalur Main Road, Yelahanka, Bengaluru - 560 063

ENGINEERING
BLUE BOOK

Name of the student :Mr./~~Ms.~~ TILAK NARASIMHA NAIK

Branch MECHANICAL Year 2021-22 Semester/Sec. IIIrd A

Subject BASIC THERMODYNAMICS Sub.Code 18mE33

Name of the Faculty MANJUNATH A C

	Date	Student Signature	Faculty Signature	Maximum Marks	Marks Awarded										Staff Sign	Remarks
					1a	1b	1c	2a	2b	2c	3a	3b	3c	Total		
Test-1	8/12/21			30	6	9					5	10		30		
Test-2	11/01/22			30	6.5	7.5					7	7.5		29		
Test-3	21/01/22			30					6		5			11		
				30										23		
Continue Internal Evaluation				10										10		
Final Internal Assesment				40										33		

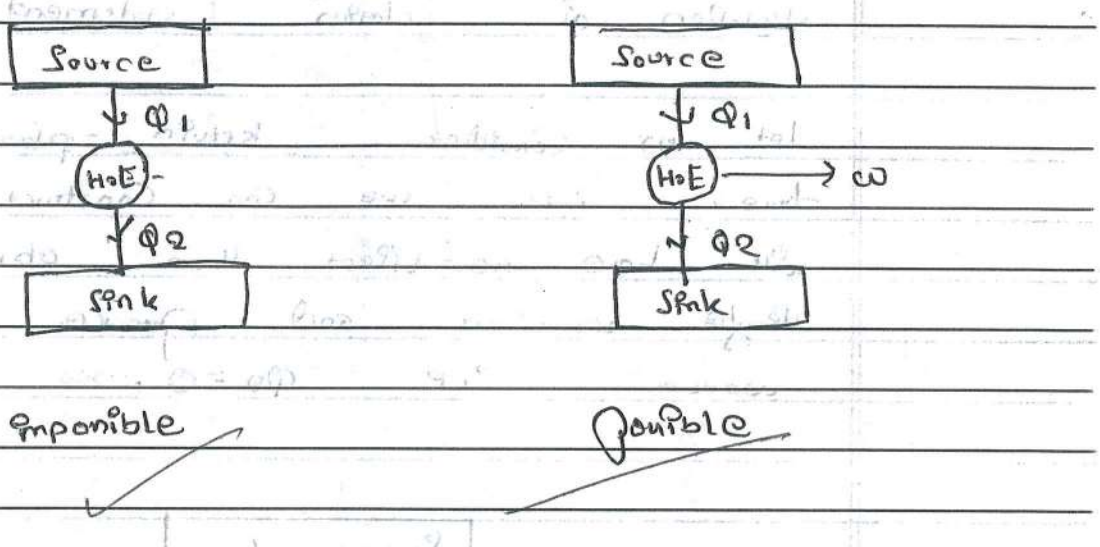
Sessional Marks Awarded	
FIGURES	WORDS
33	Thirty Three

Signature of the student

Signature of the Head of the Department

Signature of the Staff-in-Charge

1.a. Kelvin – Planck's Statement for IInd law of thermodynamics states that it is impossible to construct an engine which will have no effect than absorption of heat from single reservoir, and delivery equal ammount of work.



Impossible Possible

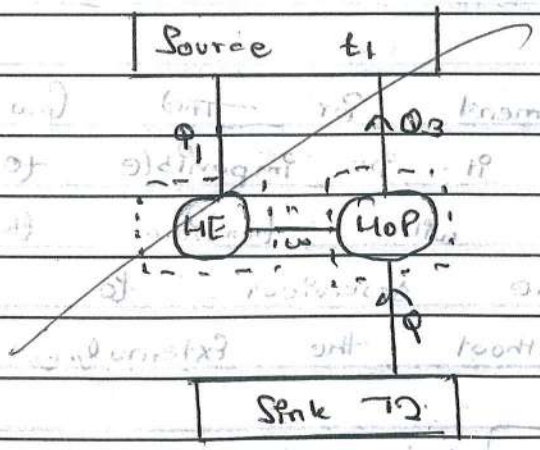
6.5 Clausius Statement for IInd law of thermodynamics states that it is impossible to construct a device which will transform the heat from lower temperature reservoir to higher temperature reservoir without the external work applied.

Impossible Possible

5.b. Perpectual motion - machine of kind 2 or Pmm-2 is a device or a heat Engine which will violetes the kelvin - plank theory by giving 100% Efficiency.

Violation of kelvin - planks Statement leads to violation of clasius statement.

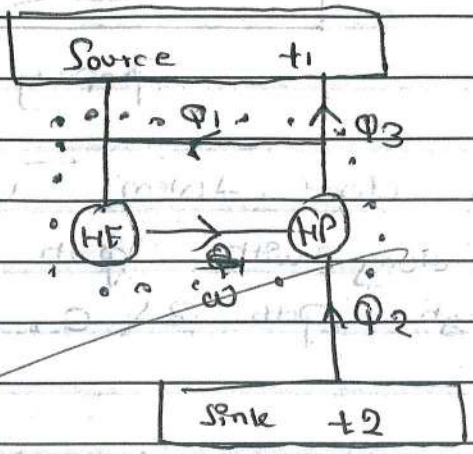
Let us Consider kelvin - plank statement is not true. i.e we Can Construct a Engine which will have no - Effect thon absorption of heat from single reservoir and produce Equal ammount of work. i.e $Q_2 = 0$.



Consider a another heat pump Connected to Heat Engine and source which will transfer the heat from low temperature body sink to higher temperature body source.

But the heat transfered by the heat pump

$Q_3 = W + Q_2$



7.5

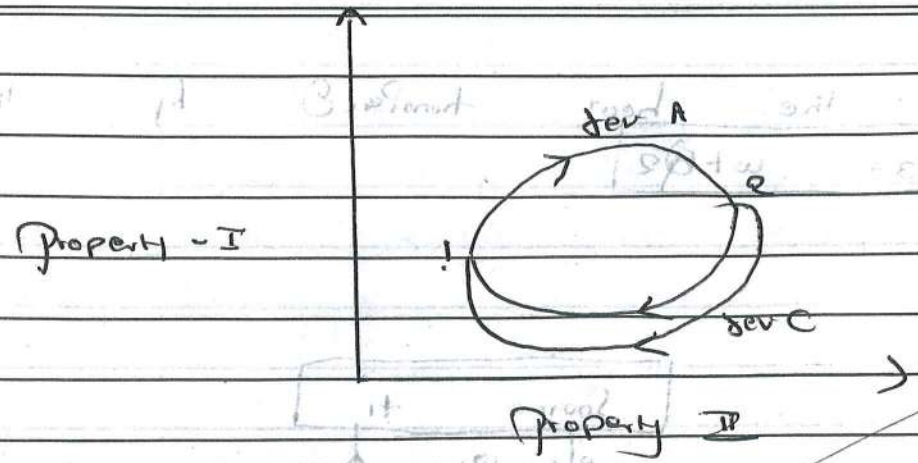
as External work is done to transfer the heat from Cower temperature source to higher temperature source this will violate the clausius law.

Hence it is proved that violation of kelvin-planks law leads to violation of clausius law.

4. a. Entropy :- Entropy is a property of a system which is used to measure the degree of randomness and disorderness in the system.

The change in the Entropy can be measured by

$$ds = \frac{dQ}{T} \text{ kJ/kg k.}$$



Consider a closed system undergoing a reversible reaction along with path A and further continuing through path B & C.

Work, Change in the Entropy of the system can be calculated using $ds = \frac{dQ}{T}$

$$\therefore \oint ds = \int_1^2 \left(\frac{dQ}{T}\right)_A + \int_2^1 \left(\frac{dQ}{T}\right)_B = 0$$

Similarly

$$\int_1^2 \left(\frac{dQ}{T}\right)_A + \int_2^1 \left(\frac{dQ}{T}\right)_C = 0$$

we can write

$$\int_1^2 \left(\frac{dQ}{T}\right)_A + \int_2^1 \left(\frac{dQ}{T}\right)_B = \int_1^2 \left(\frac{dQ}{T}\right)_A + \int_2^1 \left(\frac{dQ}{T}\right)_C$$

$$\therefore \int_2^1 \left(\frac{dQ}{T}\right)_B = \int_2^1 \left(\frac{dQ}{T}\right)_C$$

The above equation implies that path B = path C.
So entropy is not dependent on path.
It is a point function or entropy is a property of a system.

7b. Entropy loosed by steel = Entropy gained by oil

$(mcp\,dt)_{steel} = (mcp\,dt)_{oil}$

$30 \times 0.5 \times (700 - T_f) = 150 \times 2.5 (T_f - 300)$

$(700 - T_f) = 25 (T_f - 300)$

$(700 - T_f) = 25T_f - 7500$

$26T_f = 7500 + 700$

$T_f = \frac{8200}{26}$

$\boxed{T_f = 315.38\ K}$

$\Delta S = \int_{t_1}^{t_2} mcp \frac{dt}{t} = 30 \times 0.5 \times \ln\frac{315.38}{700} = -11.095$ KJ/K

$\therefore \Delta S_{steel} = -11.095$

$\Delta S_{oil} = \int_{t_1}^{t_2} mcp \frac{dt}{t} = 150 \times 2.5 \times \ln\frac{315.38}{300} = 18.748$ KJ/K

$\Delta S_{oil} = 18.748$

$\therefore (\Delta S)_{sum} = 7.653$ KJ/kg K.

29/30

13/1/22

USN	1	B	0	2	0	C	S	0	0	2

Sem / Sec. 4/A

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ENGINEERING

BLUE BOOK

Name of the student :Mr./Ms. ARHAN SINGH

Branch CSE Year 2021-22 Semester/Sec. IV/A

Subject OBJECT ORIENTED CONCEPTS Sub.Code 18CS45

Name of the Faculty Mr. SHIVAMURTHAIAH M

	Date	Student Signature	Faculty Signature	Maximum Marks	Marks Awarded										Staff Sign	Remarks
					1a	1b	1c	2a	2b	2c	3a	3b	3c	Total		
Test-1	25/08/22			30	8	7					8	6		29		
Test-2	27/07/22			30	8	6					8	2		24		
Test-3	29/08/22			30	8	7					7			22		
														16		
Continue Internal Evaluation														25		
Final Internal Assesment														35		

Sessional Marks Awarded	
FIGURES	WORDS
35	Thirty five only

Signature of the student

Signature of the Head of the Department

Signature of the Staff-in-Charge

Brindavan College of Engineering Bangalore-63

1

(a)

OOP	POP
* Emphasis is done on objects	* Emphasis is done on procedure
* Procedure is combined along data in the class	* procedure is seperated from the data
* Debugging is easy irrespective of how lengthy is program	* Debugging is difficult
* Data is secured	* Data is unsecured
* Program complexity simplicity	* program complexity
* It is reliable	* It isn't reliable
* It deals with real world physical entity (objects)	* It deals with virtual entity (procedure)
* eg:- class student { public: int Roll-no; ch name[20]; };	* eg:- Struct employee { int employee_id; ch employee_name; };

1 (b) Class is a collection of variable with similar or identical behaviour or attributes and member functions.

It deprives of objects, functions and other sub classes

Class has various features which includes :-

* inheritence :- abstracting attributes from base class to derived class
* polymorphism :- It means functions with same name but different works or function with many forms :- ex :- constructor overloading
* Data encapsulation :- Comprising all data of the classes into a single unit or class
* Data feasability or abstraction :- allow data of the classes to access other entities of other classes or same class.

Syntax :-

```
class employee
{
public:
    int id;
    ch name[20];
};
void getdata();
```

```
}
    cout<<"\n Enter the name and id of the employee:";
    cin>>name>>id;
}
    void displaydata()
{
    cout<<"\n The data of the employee is:";
    cout<<" Employee name: "<<name<<"Id:"<<id;
}
    void main()
{
    Employee Obj1;
    obj1.getdata();
    obj1.displaydata();
    getch();
}
```

—x—x—

* Here in syntax the entities of the class are defined explicitly in public so that each and every object created in class can access them.
* Then member functions are declared or defined and at last in void main an object is created Obj1 which goes through all functions and has access to every entity of class which is declared publically.

2 (a)

* Constructors should be defined always in public class.
* A constructor gets invoked automatically whenever an object is created
* The constructor name should always be same as class name.
* The constructors cannot be inherited but can access the elements of base class
* The constructor initialises the object when it is created with a known value (parameterised)
* A constructor can be called implicitly that is inside the class or explicitly with the help of scope resolution operator '::'.

ex:->

```
class A
{
    int no;
    public A ();        // implicit call
};

class A
{
    int no;
};
A::A ();                // explicit call
```

There are 3 types of constructor :-

(i) Default
(ii) parameterised
(iii) copy

3

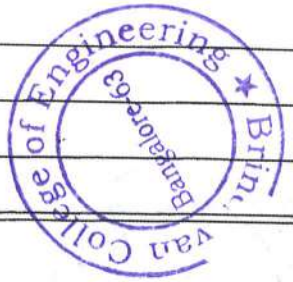
(b) Inheritance refers to the abstraction of data or inherit the data from the base class to other sub classes.

In inheritance only the members of public class of base class are inherited to every sub class without any resistance.

whereas elements of protected class are inherited once only and can't be inherited further. and elements of private class can't be inherited.

Inheritance means that the elements of other sub classes can have access to the elements of each other's class or to the base class.

Once a subclass is created it inherits the attributes of the base class and add it's own unique elements.



ex(8)-

```
class Student ()
{
    public:
    ch Sname [20];          // name of student
    int Sroll no;           // roll no. of student
};
public: class Marks ()
  {
      public:
      int n;                // no. of subjects
      int marks1, marks2;   // marks in subject 1 & 2
```

20/July/2022

29/30

Brindavan College of Engineering, Bengaluru 560 063

Department of Computer Science & Engineering

Internal Assessment Test- III

Academic Year 2021-2022

USN | | | | | | | | | |

Sem/Sec	4th 'A' & 'B'	Subject code	18CS43	Subject name	Operating Systems	Duration	1 Hour
Date & Time	26/ 08 /2022 10.30am-11.30am					Max. Marks	30

COURSE OUTCOMES

CO4: Understand different Virtual memory Management schemes.

CO5: Compare the different concepts of OS in platform of usage through case studies.

Note: Answer any 1 full question from each part. All questions carries equal marks

The following are the knowledge levels according to Bloom's taxonomy:

L1 Remembering L2 Understanding L3 Applying L4 Analysing L5 Evaluating L6 Creating

		SYLLABUS :(Module 4 & 5) PART-A QUESTION	M	Knowledge level	CO
1	a)	Explain Copy-On-Write Process in Virtual Memory	07M	L3	CO4
	b)	List the different directory structure. Explain Acyclic graph directory and Tree structure directory.	08M	L3	CO4
		OR			
2	a)	What are the different allocation methods in disk? Explain in detail any two methods.	08M	L3	CO4
	b)	List and explain the file attributes and file operations.	07M	L3	CO4
		PART-B QUESTION			
3	a)	What is an Access matrix? Explain the different methods of implementing access matrix.	08M	L3	CO5
	b)	Explain the components of Linux system with a neat diagram.	07M	L3	CO5
		OR			
4	a)	Explain in detail about overview of mass storage structure.	08M	L3	CO5
	b)	Discuss about process management in a Linux System	07M	L3	CO5

Faculty Signature

Scrutinizer Signature

HOD Signature

Brindavan College of Engineering Bangalore-63

Brindavan College of Engineering, Bengaluru 560 063

Department of Computer Science & Engineering

Internal Assessment Test- III

Academic Year 2021-2022

SCHEME OF EVALUATION

USN

Sem/Sec	4th 'A' & 'B'	Subject code	18CS43	Subject name	Operating Systems	Duration	1 Hour
Date & Time	26/ 08 /2022 10.30am-11.30am					Max. Marks	30

COURSE OUTCOMES

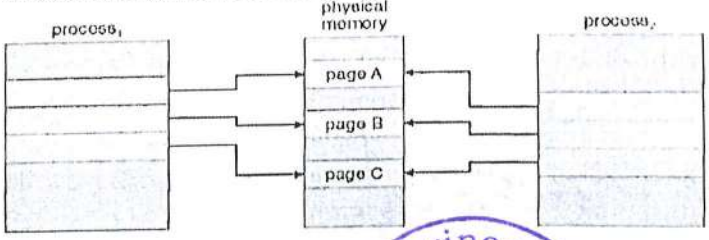
CO4: Understand different Virtual memory Management schemes.

CO5: Compare the different concepts of OS in platform of usage through case studies

Note: Answer any 1 full question from each part. All questions carries equal marks

The following are the knowledge levels according to Bloom's taxonomy:

L1 Remembering L2 Understanding L3 Applying L4 Analysing L5 Evaluating L6 Creating

		SYLLABUS :(Module 4 & 5) QUESTION	M	Knowledge level	CO
1	a)	Explain Copy-On-Write Process in Virtual Memory **Answer:** **Explanation:3M** **Diagram:4M** COPY-ON-WRITE • The fork() system call creates a child process as a duplicate of its parent. Traditionally, fork() worked by creating a copy of the parent's address space for the child, duplicating the pages belonging to the parent. • However, considering that many child processes invoke the exec() system call immediately after creation, the copying of the parent's address space may be unnecessary. • Alternatively, we can use a technique known as copy-on-write, which works by allowing the parent and child processes initially to share the same pages. • These shared pages are marked as copy-on-write pages, meaning that if either process writes to a shared page, a copy of the shared page is created. Copy-on-write is illustrated in the following figures: •  **Figure:- Before process 1 modifies page C**	07M	L3	CO4

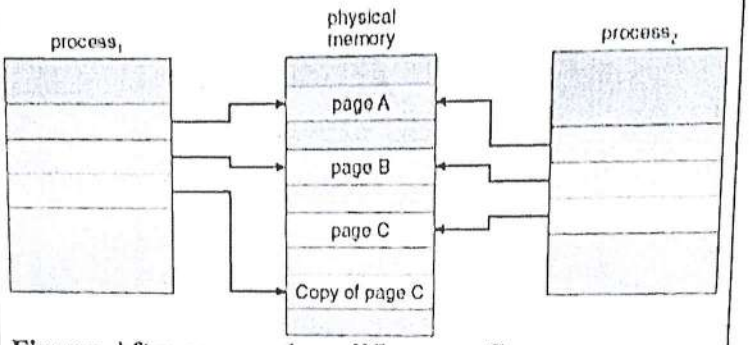


Figure: After process 1 modifies page C

- For example, assume that the child process attempts to modify a page containing portions of the stack, with the pages set to be copy-on-write.
- The operating system will then create a copy of this page, mapping it to the address space of the child process.
- The child process will then modify its copied page and not the page belonging to the parent process.
- Obviously, when the copy-on- write technique is used, only the pages that are modified by either process are copied; all unmodified pages can be shared by the parent and child processes.
- Only pages that can be modified need be marked as copy-on- write. Pages that cannot be modified (pages containing executable code) can be shared by the parent and child.

b)	List the different directory structure. Explain Acyclic graph directory and Tree structure directory.	**08M**	L3	CO4

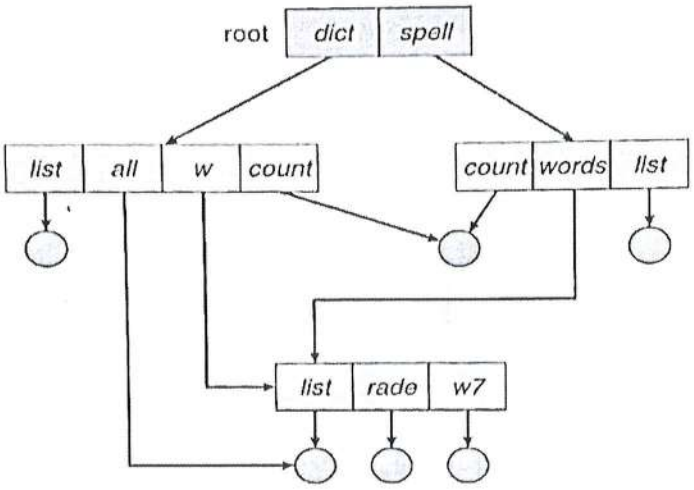
Answer:

DIRECTORY STRUCTURE

- The files systems can be very large. Some systems stores millions of files on the disk.
- To manage all this data we need to organize them.

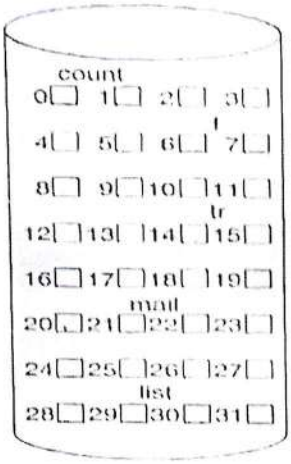
Tree-structured directories:
Explanation:2M
Daigram:2M

- MS-DOS use Tree structure directory.
- It allows users to create their own subdirectory and to organize their files accordingly.
- A subdirectory contains a set of files or subdirectories.
- A directory is simply another file, but it is treated in a special way.
- The entire directory will have the same internal format.

		• Shared files and subdirectories can be implemented by using links. • A link is a pointer to another file or a subdirectory. • A link is implemented as absolute or relative path. • An acyclic graph directory structure is more flexible then is a simple tree structure but sometimes it is more complex.  **Figure: Acyclic-graph directory structure.**			
2	a)	What are the different allocation methods in disk? Explain in detail any two methods. **Answer:** **Contiguous Allocation Explanation:[2M]** **Diagram:[2M]** **Linked Allocation Explanation:[2M]** **Diagram:[2M]** **Three major methods of allocating disk space are used.** → Contiguous allocation → Linked allocation → Indexed allocation **Contiguous Allocation:** • A single set of blocks is allocated to a file at the time of file creation. • This is a pre allocation strategy that uses portion of variable size. • The file allocation table needs just a single entry for each file, showing the starting block and the length of the file. The figure shows the contiguous allocation method. • Each file occupies a set of contiguous blocks on the disk. • Defined by the disk address and length of the first block (	**08M**	L3	CO4

in block units).

- Support both sequential and direct access.



directory

file	start	length
count	0	2
tr	14	3
mail	19	6
list	28	4
f	6	2

Figure: Contiguous allocation of disk space.

1. The file allocation table entry for each file indicates the address of starting block and the length of the area allocated for this file. Contiguous allocation is the best from the point of view of individual sequential file. It is easy to retrieve a single block. Multiple blocks can be brought in one at a time to improve I/O performance for sequential processing.

2. The file allocation table entry for each file indicates the address of starting block and the length of the area allocated for this file. Contiguous allocation is the best from the point of view of individual sequential file. It is easy to retrieve a single block. Multiple blocks can be brought in one at a time to improve I/O performance for sequential processing.

Sequential and direct access can be supported by contiguous allocation. Contiguous allocation algorithm suffers from external fragmentation.

Characteristics:

- Supports variable size portion.
- Pre-allocation is required.
- Requires only single entry for a file.
- Allocation frequency is only once.

Advantages:

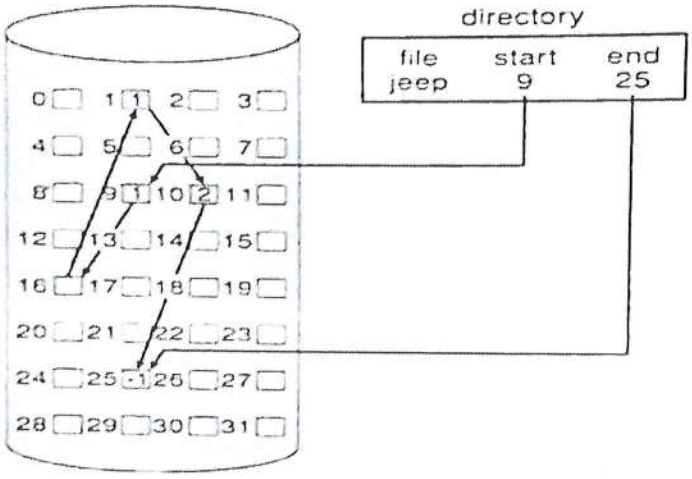
- Supports variable size problem.
- Easy to retrieve single block.
- Accessing a file is easy.
- It provides good performance.

Disadvantage:

- Pre-allocation is required.
- It suffers from external fragmentation.
- Finding space for a new file.

Linked Allocation:

- It solves the problem of contiguous allocation.

		• This allocation is on the basis of an individual block. Each block contains a pointer to the next block in the chain. • The disk block can be scattered anywhere on the disk. • The directory contains a pointer to the first and the last blocks of the file. • The following figure shows the linked allocation. • To create a new file, simply create a new entry in the directory.  **Figure: Linked allocation of disk space** • There is no external fragmentation since only one block is needed at a time. • The size of a file need not be declared when it is created. A file can continue to grow as long as free blocks are available. **Advantages:** • No external fragmentation. • Compaction is never required. • Pre-allocation is not required. **Disadvantage** • Files are accessed sequentially. • Space required for pointers. • Reliability is not good.(missing of ptrs) • Cannot support direct access.			
b)		List and explain the file attributes and file operations. **Answer:** **Explanation of File attributes:[3M]** **Explanation of File Operations:[4M]** File attributes varies from one OS to other. The common file attributes are: 1. Name:-The symbolic file name is the only information kept in human readable form. 2. Identifier:-The unique tag, usually a number, identifies the file within the file system. It is the non-readable name	07M	L3	CO4

		for a file. 3. Type:-This information is needed for those systems that supports different types. 4. Location:-This information is a pointer to a device and to the location of the file on that device. 5. Size:-The current size of the file and possibly the maximum allowed size are included in this attribute. 6. Protection:-Access control information determines who can do reading, writing, execute and so on. 7. Time, data and User Identification:-This information must be kept for creation, last modification and last use. These data are useful for protection, security and usage monitoring. ***File Operation:-*** File is an abstract data type. To define a file we need to consider the operation that can be performed on the file. Basic operations of files are: • Creating a file:-Two steps are necessary to create a file. First space in the file system for file is found. Second an entry for the new file must be made in the directory. The directory entry records the name of the file and the location in the file system. • Writing a file:-System call is mainly used for writing in to the file. System call specify the name of the file and the information i.e., to be written on to the file. Given the name the system search the entire directory for the file. The system must keep a write pointer to the location in the file where the next write to be taken place. • Reading a file:-To read a file system call is used. It requires the name of the file and the memory address. Again the directory is searched for the associated directory and system must maintain a read pointer to the location in the file where next read is to take place. • Delete a file:-System will search for the directory for which file to be deleted. If entry is found it releases all free space. That free space can be reused by another file. • Truncating the file:-User may want to erase the contents of the file but keep its attributes. Rather than forcing the user to delete a file and then recreate it, truncation allows all attributes to remain unchanged except for file length. • Repositioning within a file:-The directory is searched for appropriate entry and the current file position is set to a given value. Repositioning within a file does not need to involve actual i/o. The file operation is also known as file seeks.			
3	a)	What is an Access matrix? Explain the different methods of implementing access matrix	08M	L3	CO5

Answer:

Explanation of Access matrix :[2M]
Explanation of different methods of Access Matrix: [6M]

• Access-matrix provides mechanism for specifying a variety of policies.

The access matrix is used to implement policy decisions concerning protection.

In the matrix,

- Rows represent domains.
- Columns represent objects.

1] Each entry consists of a set of access-rights (such as read, write or execute).

In general, Access(i, j) is the set of operations that a process executing in Domain i can invoke on Objectj

Example: Consider the access matrix shown in Figure 5.10.

- There are

- Four domains: D1, D2, D3, and D4
- Three objects: F1, F2 and F3
- A process executing in domain D1 can read files F1 and F3.

domain \ object	F_1	F_2	F_3	printer
D_1	read		read	
D_2				print
D_3		read	execute	
D_4	read write		read write	

Figure :Access matrix

IMPLEMENTATION OF ACCESS MATRIX

Global Table

A global table consists of a set of ordered triples <domain, object, rights-set>.

Here is how it works:

- Whenever an operation M is executed on an object Oj within domain Di, the global table is searched for a triple < Di , Oj , Rk >, with M ∈ Rk.
- If this triple is found,

Disadvantages:

- The table is usually large and can't be kept in main memory.
- It is difficult to take advantage of groupings, e.g. if all may read an object, there must be an entry in each domain.

Access Lists for Objects

In the access-matrix, each column can be implemented as an access-list for one object.

Obviously, the empty entries can be discarded.

For each object, the access-list consists of ordered pairs <domain, rights-set>.

Here is how it works:

- Whenever an operation M is executed on an object Oj within domain Di, the access-list is searched for an entry < Di , Rk>, with M Є Rk.
- If this entry is found,

Then, we allow the access operation;
Otherwise, we check the default-set.
If M is in the default-set, we allow the access operation;
Otherwise, access is denied, and an exception condition occurs.

Advantages:

The strength is the control that comes from storing the access privileges along with each object

This allows the object to revoke or expand the access privileges in a localized manner.

Disadvantages:

- The weakness is the overhead of checking whether the requesting domain appears on the access list.

This check would be expensive and needs to be performed every time the object is accessed.
is needed.

- It is difficult to take advantage of special groupings of objects or domains.

Capability Lists for Domains

For a domain, a capability list is a list of objects & operations allowed on the objects.

Often, an object is represented by its physical name or address, called a capability.

To execute operation M on object Oj, the process executes the operation M, specifying the capability (or pointer) for object Oj as a parameter.

The capability list is associated with a domain.
But capability list is never directly accessible by a process.
Rather, the capability list is maintained by the OS & accessed by the user only indirectly.

Capabilities are distinguished from other data in two ways:

- Each object has a tag to denote whether it is a capability or accessible data.
- Program address space can be split into 2 parts.
- One part contains normal data, accessible to the program.
- Another part contains the capability list, accessible only to the OS

A Lock–Key Mechanism

The lock–key scheme is a compromise between 1) Access-lists and 2) Capability lists.

Each object has a list of unique bit patterns, called locks.

Similarly, each domain has a list of unique bit patterns, called keys.

A process executing in a domain can access an object only if that domain has a key that matches one of the locks of the object.

b)	Explain the components of Linux system with a neat diagram.	07M	L3	CO5

Answer:

Explanation: [4M]
Diagram: [3M]

Components of a Linux-System

The Linux-System is composed of 3 main bodies of code (Figure):

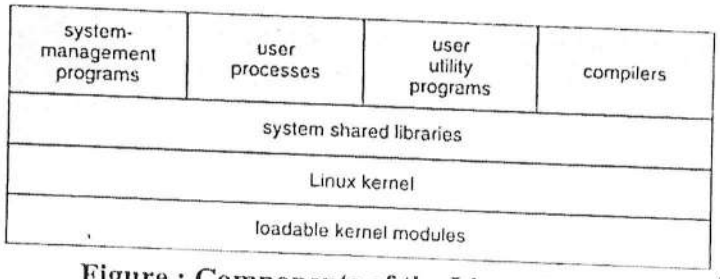


Figure : Components of the Linux-System

- **Kernel**

The kernel is responsible for maintaining all the important abstractions of the OS.

The abstractions include i) virtual-memory and ii) processes.

The system-libraries define a standard set of functions through which applications can interact with the kernel.

These functions implement much of the operating-system functionality that does not need the full privileges of kernel-code.

The most important system-library is the C library, known as libc.

libc implements

		➢ user-mode side of the Linux-System-call interface, and ➢ other critical system-level interfaces. ➢ The system utilities perform individual, specialized management tasks. ➢ Some system utilities are invoked just once to initialize and configure some aspect of the system. ➢ Other daemons run permanently, handling such tasks as ➢ responding to incoming network connections ➢ accepting logon requests from terminals, and ➢ updating log files. The system can operate in 2 modes: 1) Kernel mode 2) User-mode. Sl. No. / Kernel Mode / User-Mode 1 / All the kernel code executes in the processor's privileged mode with full access to all the physical resources of the computer. This privileged mode called as kernel mode / Any operating system support code that does not need to run in kernel mode is placed into the system libraries and runs in user-mode 2 / No user code is built into the kernel / User-mode has access only to a controlled subset of the system's resources			
4	a)	Explain.in detail about overview of mass storage structure. **Answer:** **Explanation: [4M]** **Diagram: [4M]** MASS STORAGE STRUCTURES ☐ Disks provide a bilk of secondary storage. ☐ Disks come in various sizes, speed and information can be stored optically or magnetically. ☐ Magnetic tapes were used early as secondary storage but the access time is less than disk. ☐ Modern disks are organized as single one-dimensional array of logical blocks. ☐ The actual details of disk i/o open depends on the computer system, OS, nature of i/o channels and disk controller hardware. ☐ The basic unit of information storage is a sector. The sectors are stored on flat, circular, media disk. This disk media spins against one or more read-write heads. The head can move from the inner portion of the disk to the outer portion. ☐ When the disk drive is operating the disks is rotating at a constant speed. ☐ To read or write the head must be positioned at the desired track and at the beginning if the desired sector on that track. • Track selection involves moving the head in a movable	08M	L3	CO5

head system or electronically selecting one head on a fixed head system.

These characteristics are common to floppy disks, hard disks, CD-ROM and DVD.

Hard-Disks

Hard-disks provide the bulk of secondary-storage for modern computer-systems (Figure).

Each disk-platter has a flat circular-shape, like a CD.

The 2 surfaces of a platter are covered with a magnetic material.

Information is stored on the platters by recording magnetically.

A read–write head flies just above the surface of the platter.

The heads are attached to a disk-arm that moves all the heads as a unit.

The surface of a platter is logically divided into circular tracks, which are subdivided into sectors.

The set of tracks that are at one arm position makes up a cylinder.

There may be thousands of concentric-cylinders in a disk-drive, and each track may contain hundreds of sectors.

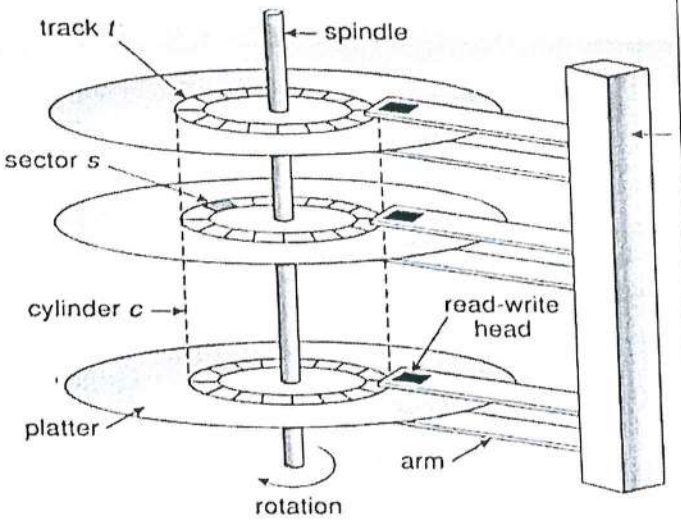


Figure: Moving-head disk mechanism

- Disk-speed has 2 parts:

i) The transfer-rate is the rate at which data flow between the drive and the computer.

ii) The positioning-time(or random-access time) consists of 2 parts:

- Seek-time refers to the time necessary to move the disk-

arm to the desired cylinder.

- Rotational-latency refers to the time necessary for the desired sector to rotate to the disk-head.

A disk can be removable which allows different disks to be mounted as needed.

A disk-drive is attached to a computer by an I/O bus.

Different kinds of buses:

serial ATA (SATA)

- eSATA, universal serial bus (USB) and

- fibre channel (FC).

Solid-State Disks

An SSD is non-volatile memory that is used like a hard-drive.

For example:

DRAM with a battery to maintain its state in a power-failure through flash-memory technologies.

Advantages compared to Hard-disks:

→ 1) More reliable : SSDs have no moving parts and are faster because they have no seek-time or latency.

→ 2) Less power consumption.

Disadvantages:

→ 1) More expensive

→ 2) Less capacity and so shorter life spans, so their uses are somewhat limited.

Applications:

→ 1) One use for SSDs is in storage-arrays, where they hold file-system metadata that require high performance.

2) SSDs are also used in laptops to make them smaller, faster, and more energy-efficient.

Magnetic Tapes

Magnetic tape was used as an early secondary-storage medium.

Advantages:

It is relatively permanent and can hold large quantities of data.

Disadvantages:

→ Its access time is slow compared with that of main memory and Hard-disk.

→ In addition, random access to magnetic tape is about a

Process Context

The (constantly changing) state of a running program at any point in time. Process context includes the following parts:

- Scheduling context: The scheduling context is the most important part of the process context; it is the information that the scheduler needs to suspend and restart the process.
- Accounting: The kernel maintains accounting information about the resources currently being consumed by each process, and the total amount consumed by the process in its lifetime so far.
- File table: The file table is an array of pointers to kernel file structures. When making file I/O system calls, processes refer to files by their index into this table.
- File-system context: While the file table lists the existing open files, the file-system context applies to requests to open new files. The current root and default directories to be used for new file searches are stored here.
- Signal-handler table: The signal-handler table defines the routine in the process's address space to be called when specific signals arrive.
- Virtual memory context: The virtual-memory context of a process describes the full contents of its private address space.

Processes and Threads

- Linux uses the same internal representation for processes and threads; a thread is simply a new process that happens to share the same address space as its parent.
- A distinction is only made when a new thread is created by the clone system call.
  - fork creates a new process with its own entirely new process context.
  - clone creates a new process with its own identity, but that is allowed to share the data structures of its parent.
- Using clone gives an application fine-grained control over exactly what is shared between two threads.

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