**Course File**

***Subject Title/Subject Cod : Compiler Design/5CS4-02***

Semester : V Year : III

|  |  |  |
| --- | --- | --- |
| Name of the Faculty: Kirti Dashora |  | |
|  |  | |
| E-mail id: kirti.dashora@technonjr.org |  |

**Class Schedule**

**Total Number of Lectures:** 42

i**)Course Objective**

**To introduce the basic components and phases of a compiler like parsing ,code generation etc**

**INDEX - COURSE FILE**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **CONTENT / ITEM NO.** | **PAGE NO.** |
| **Status** |
| 1 | Vision And Mission Of The Institute |  |  |
| 2 | Vision And Mission Of The Department |  |  |
| 3 | Program Educational Objective Of Department (PEO’s) |  |  |
| 4 | Program Outcomes Of Department (PO’s) |  |  |
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| 14 | Quiz Questions (One From Each Unit) |  |  |
| 15 | Question Papers Of Mid Term Exam-I |  |  |
| 16 | Marks and Gap Analysis in Mid Term I |  |  |
| 17 | Remedial Action Taken To Remove the Gaps after mid Term I |  |  |
| 18 | Question Papers Of Mid Term Exam-II |  |  |
| 19 | Gap Analysis in Mid Term II |  |  |
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| 21 | Model Question Paper With Key Solution |  |  |
| 22 | University Question Paper (Last one year) |  |  |
| 23 | Student Performance Report |  |  |
| 24 | Result Analysis |  |  |

**VISSION & MISSION OF INSTITUTE**

## Vision

Empowering student with recent and emerging technologies to create innovative technical leaders capable of contributing to industrial and societal needs for betterment of mankind across the globe.

## Mission

**M1**: To provide dynamic learning environment to students by providing constant exposure to latest technologies by linking closely with the industries.

**M2**: To establish effective interface with industry to obtain live problems to enhance critical thinking and problem solving skills among students and consultancy projects for faculty.

**M3**: To provide avenues and opportunities to faculty for domain specific trainings and qualification upgradation.

**M4**: To develop ethical leaders with strong communication skills.

**VISION & MISSION OF DEPARTMENT**

**Department Vision**

**To be among top five well known department of Computer Science and Engineering in the state of Rajasthan in placing the students at premier industry.**

**Department Mission**

**M1: To equip students with ability to be innovative and excellence to face the challenges in the digital world.**

**M2: To prepare students with high quality employability skills catering to current trends in industries, problem solving skills, innovative pursuits and ready to face challenges in the domain and allied disciplines.**

**M3: To provide ambience for entrepreneurship and start-ups through incubation center among students.**

**M4: To encourage continuous faculty training on industry-based Development, and Innovation.**

**PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)**

**Technical Proficiency** Graduates will have a strong foundation in core concepts, tools, and technologies relevant to their discipline.

**Career Development** Graduate will be capable of pursuing diverse career paths in field of Computer Science & Engineering with proficiency in software development/ pursue higher education an or become entrepreneurs.

**Problem-Solving** Graduates will have a strong math foundation so that they will be proficient problem solvers, capable of identifying, analyzing , and solving complex technical problems using critical thinking and creative approaches.

**Professional Attitude** Graduates will be sensitive to societal and professional environment, possess strong communication skills and will be skilled in working collaboratively within diverse teams adhering to ethical standards and professional practices.

**Learning Environment** To create a learning environment that ensures graduates continue learning throughout their careers, effortlessly adopting new technologies to stay innovative in their chosen fields and remain effective contributors in their chosen field.

**PROGRAM SPECIFIC OUTCOMES (PSO's)**

**PSO1**: Students will be able to design, develop, test, debug, deploy, analyze , troubleshoot, maintain, manage, and ensure security during the complete product lifecycle.

**PSO2**: Student will be able to apply software engineering/ information system development skills to solve problems across diverse domains.

**PSO3**: Students will be well-prepared to initiate and oversee innovative startups within their respective sectors.

**PROGRAMME OUTCOMES (POs)**

**A student will develop:**

**PO01. ENGINEERING KNOWLEDGE**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO02. PROBLEM ANALYSIS**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

**PO03. DESIGN/ DEVELOPMENT OF SOLUTION**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO04. CONDUCTION OF INVESTIGATION OF COMPLEX PROBLEMS**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO05. MODERN TOOL USAGE**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with and understanding of the limitations.

**PO06. THE ENGINEERING AND SOCIETY**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO07. ENVIRONMENT & SUSTAINABILITY**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO08. ETHICS:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO09. INDIVIDUAL AND TEAM WORK**: Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings.

**PO10. COMMUNICATION**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11. PROJECT MANAGEMENT & FINANCE:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12. LIFE-LONG LEARNING**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

**COURSE OUTCOMES (COs) OF THE SUBJECT**

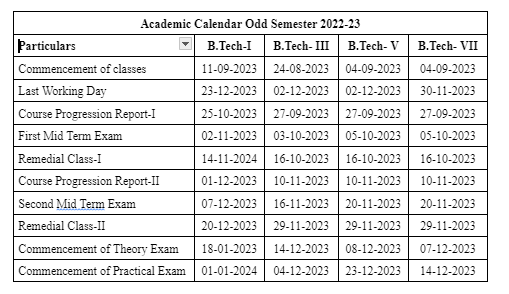
|  |  |  |
| --- | --- | --- |
| CO No. | Mapping | Statement |
| CO35402.1 | Analyzing | Students will be able to analyze various phases of compiler and apply concepts such as tokens, lexemes, and pattern matching. |
| CO35402.2 | Applying | Students will be able to identify, formulate, and solve computer engineering problems with proper systematic & semantic approach |
| CO35402.3 | Applying | Students will be able to Develop possible program constructs for further code generation with Type checking. |
| CO35402.4 | Analyzing | Students will be able to analyze various concepts of symbol tables, Run time environments, memory management strategy. |
| CO35402.5 | Analyzing | Students will get the concepts of Intermediate code generation, Code optimization and Code generations. |

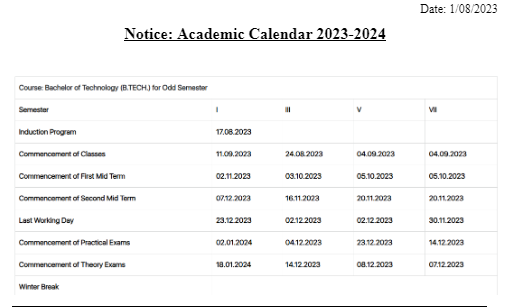
**COS MAPPING WITH POs AND PSOs**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Outcome** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** | **PSO3** |
| **CO1** | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| **CO2** | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| **CO3** | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 0 |
| **CO4** | 2 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| **CO5** | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |

**UNIVERSITY ACADEMIC CALENDAR**

Academic Calendar for Even Semester for Session

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**Evaluation Scheme**

FACULTY DETAILS:

Name of the Faculty : Kirti Dashora

Designation : Assistant Professor

Department : Computer Science Engineering

1. TARGET

a) Percentage Pass : 100%

b) Percentage I class: 60 %

2. METHOD OF EVALUATION

2.1. Continuous Assessment Examinations (Mid-Term 1, Mid-Term 2)

2.2. Assignments / Seminars

2.3. Mini Projects

2.4. Quiz

2.5. Semester Examination Others\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. List out any new topic(s) or any innovation you would like to introduce in teaching the subject in this Semester.

1. Take the help of creative tools to stimulate creativity. Include slide presentations, demonstration or forms of visual exercises that will excite the young minds and capture their interest.

Signature of Faculty: **Signature of HOD**

**UNIVERSITY SYLLABUS**

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**PRESCRIBED BOOKS**

1. Compilers, Principle, Techniques, and Tools. – Alfred.V Aho, Monica S.Lam, Ravi Sethi, Jeffrey D. Ullman.

2. Modern Compiler implementation in C , - Andrew N.Appel Cambridge University Press.

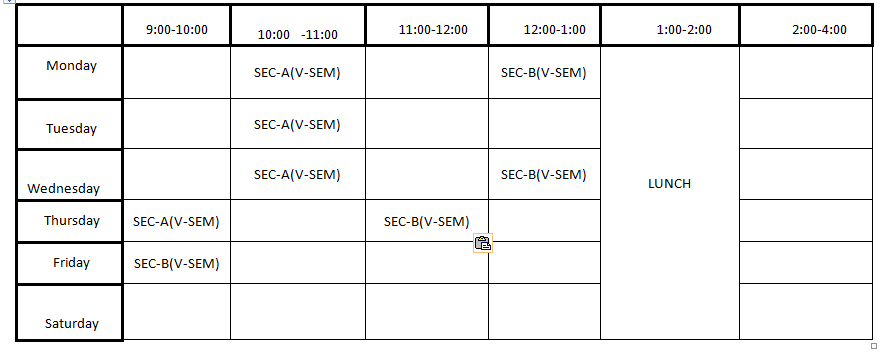
3. lex & yacc , -John R Levine, Tony Mason, Doug Brown; O’reilly.

4. Compiler Construction,- LOUDEN, Thomson.

5. Engineering a compiler – Cooper & Linda, Elsevier.

6. Modern Compiler Design – Dick Grune, Henry E.Bal, Cariel TH Jacobs, Wiley Dreatech

**WEEKLY TIME TABLE OF THE TEACHER**



**COURSE-PLAN**

|  |  |  |  |
| --- | --- | --- | --- |
| UNIT | Lect.  No. | TOPICS | **Teaching Methods/ Teaching Aids** |
| **1** | **1** | Introduction of Compiler, Translator, Interpreter | White Board, PPT, |
| 1 | 2 | Phase of compiler | White Board, PPT, Demonstration |
| 1 | 3 | Introduction to one pass & Multipass compilers, Bootstrapping | White Board |
| 1 | 4 | Review of Finite automata | White Board |
| 1 | 5 | Lexical analyzer, Input, buffering | White Board, PPT |
| 1 | 6 | Recognition of tokens | White Board |
| 1 | 7 | A lexical analyzer generator, Error handling | White Board, PPT |
| 2 | 8 | Review of Context Free Grammar, Ambiguity of grammars | White Board |
| 2 | 9 | Introduction to parsing: Bottom up parsing | White Board, PPT, |
| 2 | 10 | Top down parsing techniques | White Board, PPT, Demonstration |
| 2 | 11 | Shift reduce parsing, Operator precedence parsing | White Board |
| 2 | 12 | Recursive descent parsing predictive parsers | White Board |
| 2 | 13 | LL grammars & passers error handling of LL parser | White Board, PPT |
| 2 | 14 | LR parsers | White Board |
| 2 | 15 | Construction of SLR | White Board, PPT |
| 2 | 16 | Conical LR & LALR parsing tables | White Board |
| 2 | 17 | Parsing with ambiguous grammar | White Board, PPT, |
| 2 | 18 | Introduction of automatic parser generator: YACC error handling in LR parsers. | White Board, Demonstration |
| 3 | 19 | Construction of syntax trees | White Board |
| 3 | 20 | L-attributed definitions, Top down translation | White Board |
| 3 | 21 | Specification of a type checker | White Board, PPT |
| 3 | 22 | Intermediate code forms using postfix notation | White Board |
| 3 | 23 | Three address code, Representing TAC using triples and quadruples | White Board, PPT |
| 3 | 24 | Translation of assignment statement | White Board |
| 3 | 25 | Boolean expression and control structures | White Board, PPT, |
| 4 | 26 | Storage organization, Storage allocation, Strategies | White Board, PPT, Demonstration |
| 4 | 27 | Activation records, Accessing local and non-local names in a block structured language -1 | White Board |
| 4 | 28 | Activation records, Accessing local and non-local names in a block structured language -2 | White Board |
| 4 | 29 | Parameters passing, Symbol table organization | White Board, PPT |
| 4 | 30 | Data structures used in symbol tables | White Board |
| 5 | **31** | Definition of basic block control flow graphs | White Board, PPT |
| 5 | 31 | DAG representation of basic block | White Board |
| 5 | 33 | Advantages of DAG, Sources of optimization, Loop optimization | White Board, PPT, |
| 5 | 34 | Idea about global data flow analysis, Loop invariant computation | White Board, PPT, Demonstration |
| 5 | 35 | Peephole optimization | White Board |
| 5 | 36 | Issues in design of code generator | White Board |
| 5 | 37 | A simple code generator, Code generation from DAG | White Board, PPT |
|  | 38 | Revision of Important topics | White Board |
|  | 39 | Problem solving | White Board, PPT |
|  | 40 | Problem solving | White Board |

**Signature of Faculty: Signature of HOD**

**Assignment – 1 ()**

1**.** What are the different phases of compiler? Explain the phases in detail. Write down the phases in detail. Write down the output of each phase for the expression a:=b +c\*50**. (CO1)**

2**.** Elaborate specification and recognition of tokens. **(CO1)**

3. Eliminate the left recursion for the following grammer E-->E+T/T T-->T\*F/F F-->(E)/id.(**CO2)**

4. Check whether the grammer is LALR(1) but not SLR(1) S-->Aa/bAc/dc/bda A-->d. **(CO2)**

5. Define the following I) Annotated parse tree II) Dependency graph III) Syntax tree. **(CO3)**

**Assignment – 2 ()**

1. Explain three address codes and its types. How would you implement the three

Address statements? Explain with suitable examples. **(CO3)**

2. Define a Directed Acyclic graph. Construct a DAG and write the sequence of

Instructions for the expression a + a\*(b-c)+(b-c)\*d.  **(CO4)**

3. What is an activation record? Explain how it is related with run time

storage organization. **(CO4)**

4. Explain the machine dependent and independent techniques. **(CO5)**

5. Write global common sub expression elimination algorithm with an example. **(CO5)**

**SAMPLE QUIZ QUESTIONS**

|  |  |
| --- | --- |
| 1. | What is a compiler? |
| 2. | What is the use of a symbol table in compiler design? |
| 3. | A programmer, writes a program to multiply two numbers instead of dividing them by mistake, how can this error be detected? |
| 4. | Who is responsible for the creation of the symbol table? |
| 5. | What is CFG? |
| 6. | Characters are grouped into tokens in which of the following phase of the compiler design? |
| 7. | Why Generation of intermediate code based on an abstract machine model is useful in compilers |
| 8. | Why System program such as compiler are designed? |
| 9. | Which technique is used for building cross compilers for other machines? |
| 10. | Which tool can used detect an error if a programmer by mistake writes multiplication instead of division? |
| 11. | Which system program integrates a program’s individually compiled modules into a form that can be executed? |
| 12. | Which compiler used for a high-level language that runs on one machine and produces code for a different machine? |
| 13. | The process of assigning load addresses to the various parts of the program and adjusting the code and data in the program to reflect the assigned addresses is called? |
| 14. | Name some Top-Down Parser. |
| 15. | What data structure in a complier is used for managing information about variables and their attributes? |

**Mid Term Paper-I**

**TECHNO INDIA NJR INSTITUTE OF TECHNOLOGY, UDAIPUR**

B. TECH 3rd – YEAR (V SEM.) – MT-I

Compiler Design (**5CS4-02**)

Time: 2 Hr Max. Marks: 70

**Note:**

1. The paper is divided into 2 parts: Part-A and, Part-B
2. Part-A contains 10 questions and carries 2 mark each.
3. Part-B contains 5 questions. Each question is having two options and carries 10 marks each.

Part- A (20 Marks)

|  |  |
| --- | --- |
| 1. What is Compiler? | CO1 |
| 1. What is assembler? | CO1 |
| 1. Difference between Translator and Interpreter | CO1 |
| D. Differentiate between Single pass compiler and Multi pass compiler. | CO1 |
| E. What is Bootstrapping ? | CO2 |
| F. What is finite automata? | CO2 |
| G. What are tokens,patterns and lexemes? | CO2 |
| H. Differentiate between NFA and DFA. | CO2 |
| I. What is Parsing? | CO3 |
| J. What is ambiguity in Grammars? | CO3 |

*CO1- 8, CO2-8,CO3-4*

Part- B (50 Marks)

|  |  |
| --- | --- |
| 1. Explain phases of compiler in detail. | CO1 |
| OR | |
| 1. Give all phase result for given statement   “Position :=initial +rate \*60 with suitable diagram. | CO1 |

|  |  |
| --- | --- |
| 2. What are main function performed by lexical analyzer? | CO1 |
| OR | |
| 2. Consider the following program:    **Main()**  **{**  **int x,y,z;**  **z=x+y;**  **}**  List down lexemes ,token and the attributes of the tokens at the end of lexical  analysis. | CO1 |

|  |  |
| --- | --- |
| 3. Explain the methods of input buffering | CO2 |
| OR | |
| 3. What is Cross Compilation . Explain with example | CO2 |

|  |  |
| --- | --- |
| 4**.** Differentiate between Top down parsing and Bottom up parsing | CO2 |
| OR | |
| 4. Explain concept of concept free Grammar | CO2 |

|  |  |
| --- | --- |
| 5. Consider the grammar  **S -> T L;**  **T -> int | float**  **L -> L, id | id**  Parse the input string **int id ,id ;** using shift reduce parser. | CO3 |
| OR | |
| 5. Consider the grammar  **E → E + E | E x E | id**  Construct the operator precedence parser and parse the string id + id x id. | CO5 |

CO1-40 CO2-40 CO3-20

**Marks and Gap Analysis of Mid-Term 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No. | University Roll No. | Name of Student | Mid-Term 1  MM-32 | Remark  ( Remedial Class need or not – Y/N ) |
| 1 | 21ETCCS001 | AARSH BHARTI | 57 | N |
| 2 | 21ETCCS002 | MS AASTHA DAKHERA | 70 | N |
| 3 | 21ETCCS003 | ABHISHEK PRAJAPAT | 50 | N |
| 4 | 21ETCCS005 | AKSHANSH SONI | 57 | N |
| 5 | 21ETCCS006 | AKSHAT SINGH CHOUHAN | 51 | N |
| 6 | 21ETCCS007 | ANIRUDH SINGH RAJPUROHIT | 52 | N |
| 7 | 21ETCCS008 | ANISH SINGHAL | 60 | N |
| 8 | 21ETCCS009 | ANJALI SONI | 44 | N |
| 9 | 21ETCCS010 | ANURAG MENARIA | 54 | N |
| 10 | 21ETCCS011 | ANUSHKA VIJAY | 58 | N |
| 11 | 21ETCCS012 | APURVA LODHA | 70 | N |
| 12 | 21ETCCS013 | ARUN LOHAR | 58 | N |
| 13 | 21ETCCS014 | ARVIND SINGH | 55 | N |
| 14 | 21ETCCS015 | ARVIND SUTHAR | 54 | N |
| 15 | 21ETCCS016 | AVANI JOSHI | 45 | N |
| 16 | 21ETCCS017 | AYAN KHAN | 56 | N |
| 17 | 21ETCCS018 | AYUSH JHOTA | 59 | N |
| 18 | 21ETCCS019 | AYUSH TALESARA | 46 | N |
| 19 | 21ETCCS020 | BHAVYA MEHTA | 36 | N |
| 20 | 21ETCCS021 | BHERU SINGH PANWAR | 59 | N |
| 21 | 21ETCCS022 | MS BHUMIKA VARDAR | 60 | N |
| 22 | 21ETCCS025 | CHINMAY MENARIA | 47 | N |
| 23 | 21ETCCS026 | DAKSH VYAS | 60 | N |
| 24 | 21ETCCS027 | DEEPAK DHAKAR | 60 | N |
| 25 | 21ETCCS029 | DHIREN SUHALKA | 36 | N |
| 26 | 21ETCCS030 | DHRUV BAGORA | 38 | N |
| 27 | 21ETCCS031 | DIKSHA AGARWAL | 70 | N |
| 28 | 21ETCCS032 | DINESH AUDICHYA | 56 | N |
| 29 | 21ETCCS034 | DIVYANSHU MENARIA | 56 | N |
| 30 | 21ETCCS035 | DIVYANSHU SAHU | 70 | N |
| 31 | 21ETCCS036 | DURGA SANKAR DANGI | 70 | N |
| 32 | 21ETCCS037 | GAGAN MANGAL | 62 | N |
| 33 | 21ETCCS038 | GARVITA BAYA | 70 | N |
| 34 | 21ETCCS039 | GARVITA JAIN | 70 | N |
| 35 | 21ETCCS040 | GAZI AMAN KHAN | 50 | N |
| 36 | 21ETCCS041 | HARSH | 51 | N |
| 37 | 21ETCCS042 | HARSH SONI | 70 | N |
| 38 | 21ETCCS043 | HARSHAL PALIWAL | 55 | N |
| 39 | 21ETCCS044 | HARSHIT PUROHIT | 70 | N |
| 40 | 21ETCCS045 | HARSHIT SHARMA | 61 | N |
| 41 | 21ETCCS046 | HARSHITA RATHORE | 61 | N |
| 42 | 21ETCCS047 | HEET DOSI | 57 | N |
| 43 | 21ETCCS048 | MS HETAL SHARMA | 57 | N |
| 44 | 21ETCCS049 | JAHNAVI JOSHI | 70 | N |
| 45 | 21ETCCS050 | JAINIL JAIN | 70 | N |
| 46 | 21ETCCS051 | JASWANT SINGH RAO | 62 | N |
| 47 | 21ETCCS052 | JATIN VASHISHTHA | 66 | N |
| 48 | 21ETCCS053 | JAY JOSHI | 70 | N |
| 49 | 21ETCCS054 | JAYDEEP DANGI | 70 | N |
| 50 | 21ETCCS055 | JIGYASA CHATURVEDI | 61 | N |
| 51 | 21ETCCS056 | KAILASH JOSHI | 70 | N |
| 52 | 21ETCCS057 | KAMLESH KUMAR GHANCHI | 66 | N |
| 53 | 21ETCCS058 | KANISHKA PARMAR | 70 | N |
| 54 | 21ETCCS059 | KASHVI PANDEY | 66 | N |
| 55 | 21ETCCS060 | KHUSHAL PALIWAL | 62 | N |
| 56 | 21ETCCS061 | KHUSHI GAHLOT | 66 | N |
| 57 | 21ETCCS062 | KHUSHI VANAWAT | 67 | N |
| 58 | 21ETCCS064 | KUNAL CHOUBISA | 55 | N |
| 59 | 21ETCCS065 | KUNAL MENARIA | 59 | N |
| 60 | 21ETCCS066 | KUNAL PALIWAL | 61 | N |
| 61 | 21ETCCS067 | KUNAL SHARMA | 68 | N |
| 62 | 21ETCCS068 | KUNIKA KADECHA(RL) | 68 | N |
| 63 | 21ETCCS069 | LALITA DANGI | 70 | N |
| 64 | 21ETCCS070 | LAVISHA JAIN | 70 | N |
| 65 | 21ETCCS071 | LOKANTIK JAIN | 62 | N |
| 66 | 21ETCCS073 | MAHAK BANSAL | 68 | N |
| 67 | 21ETCCS074 | MANSI GEHLOT | 70 | N |
| 68 | 21ETCCS075 | MAYANK KANERIYA | 70 | N |
| 69 | 21ETCCS076 | MAYANK MALIWAL | 59 | N |
| 70 | 21ETCCS078 | MITANSH JAIN | 54 | N |
| 71 | 21ETCCS079 | MOHAMMED OWAIS KHAN | 62 | N |
| 72 | 21ETCCS081 | NAVNEET ANAND | 62 | N |
| 73 | 21ETCCS082 | NEHAL DHING | 70 | N |
| 74 | 21ETCCS084 | NIPUN MALI | 69 | N |
| 75 | 21ETCCS085 | NISHA LOHAR | 70 | N |
| 76 | 21ETCCS086 | PRADHUMAN SINGH CHAUDHARY | 69 | N |
| 77 | 21ETCCS087 | PRANJAL SINGHVI | 70 | N |
| 78 | 21ETCCS088 | RAJAT PATIDAR | 55 | N |
| 79 | 21ETCCS089 | RIYA JAIN | 70 | N |
| 80 | 21ETCCS090 | ROHIN GANG | 55 | N |
| 81 | 21ETCCS091 | RUPAL SONI | 70 | N |
| 82 | 21ETCCS092 | SAHIL SOLANKI | 69 | N |
| 83 | 21ETCCS093 | SARGAM JAIN | 70 | N |
| 84 | 21ETCCS094 | SATYEN KHARADI | 68 | N |
| 85 | 21ETCCS095 | SHASHANK MENARIA | 68 | N |
| 86 | 21ETCCS096 | SHUBHAM DAS | 68 | N |
| 87 | 21ETCCS097 | SUDEEP ROY | 59 | N |
| 88 | 21ETCCS098 | SUMIT VASITA | 58 | N |
| 89 | 21ETCCS099 | SUYASH SONI | 70 | N |
| 90 | 21ETCCS100 | MS TANISHA KUMAWAT | 70 | N |
| 91 | 21ETCCS101 | TUSHAR YADAV | 60 | N |
| 92 | 21ETCCS102 | VAIBHAV GARG | 59 | N |
| 93 | 21ETCCS103 | VAIBHAV SONI | 70 | N |
| 94 | 21ETCCS104 | VARUN SHARMA | 43 | N |
| 95 | 21ETCCS105 | VEDANSHI PAREEK | 70 | N |
| 96 | 21ETCCS106 | VEDAS DIXIT | 70 | N |
| 97 | 21ETCCS107 | VIKRAM SINGH SISODIYA | 70 | N |
| 98 | 21ETCCS108 | VIMANYU P SHARMA | 63 | N |
| 99 | 21ETCCS109 | VISHAL KUMAWAT | 63 | N |
| 100 | 21ETCCS110 | VISHAL PUSHKARNA | 63 | N |
| 101 | 21ETCCS111 | VYOM BHATT | 70 | N |
| 102 | 21ETCCS112 | YASH JAIN | 69 | N |
| 103 | 21ETCCS113 | YASH JOSHI | 62 | N |
| 104 | 21ETCCS114 | YASH PURI GOSWAMI | 69 | N |
| 105 | 21ETCCS115 | YOGESH JAIPAL | 63 | N |
| 106 | 21ETCCS116 | MS YUVIKA CHOUDHARY | 65 | N |
| 107 | 21ETCCS117 | YUVRAJ SINGH KANAWAT | 62 | N |
| 108 | 21ETCCS300 | NEELAM KATARIYA | 64 | N |
| 109 | 21ETCCS400 | Shabbir Husain | 61 | N |
| 110 | 21ETCCS401 | Ali Hussain | 44 | N |
| 111 | 22ETCCS200 | Saurabh Soni | 63 | N |

**\***(Y, if obtained marks are <50%)

**Signature of Faculty: Signature of HOD**

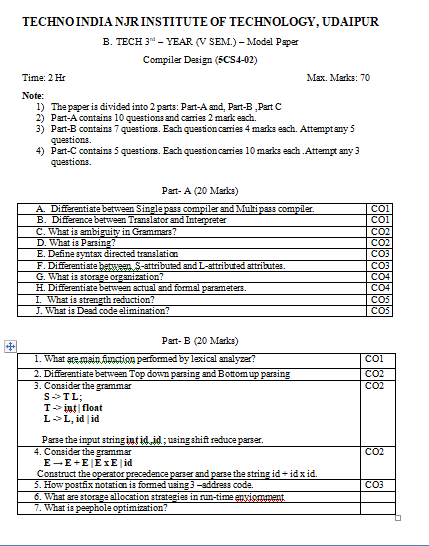
**Mid Term Exam – II**

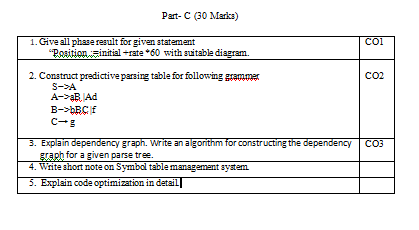
**Marks and Gap Analysis of Mid-Term II**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. No. | University Roll No. | Name of Student | Mid-Term 2  MM-32 | Remark  ( Remedial Class need or not – Y/N ) |
| 1 | 21ETCCS001 | AARSH BHARTI | 62 | N |
| 2 | 21ETCCS002 | MS AASTHA DAKHERA | 69 | N |
| 3 | 21ETCCS003 | ABHISHEK PRAJAPAT | 57 | N |
| 4 | 21ETCCS005 | AKSHANSH SONI | 62 | N |
| 5 | 21ETCCS006 | AKSHAT SINGH CHOUHAN | 57 | N |
| 6 | 21ETCCS007 | ANIRUDH SINGH RAJPUROHIT | 57 | N |
| 7 | 21ETCCS008 | ANISH SINGHAL | 64 | N |
| 8 | 21ETCCS009 | ANJALI SONI | 55 | N |
| 9 | 21ETCCS010 | ANURAG MENARIA | 57 | N |
| 10 | 21ETCCS011 | ANUSHKA VIJAY | 62 | N |
| 11 | 21ETCCS012 | APURVA LODHA | 69 | N |
| 12 | 21ETCCS013 | ARUN LOHAR | 62 | N |
| 13 | 21ETCCS014 | ARVIND SINGH | 60 | N |
| 14 | 21ETCCS015 | ARVIND SUTHAR | 57 | N |
| 15 | 21ETCCS016 | AVANI JOSHI | 55 | N |
| 16 | 21ETCCS017 | AYAN KHAN | 60 | N |
| 17 | 21ETCCS018 | AYUSH JHOTA | 62 | N |
| 18 | 21ETCCS019 | AYUSH TALESARA | 55 | N |
| 19 | 21ETCCS020 | BHAVYA MEHTA | 50 | N |
| 20 | 21ETCCS021 | BHERU SINGH PANWAR | 62 | N |
| 21 | 21ETCCS022 | MS BHUMIKA VARDAR | 62 | N |
| 22 | 21ETCCS025 | CHINMAY MENARIA | 55 | N |
| 23 | 21ETCCS026 | DAKSH VYAS | 62 | N |
| 24 | 21ETCCS027 | DEEPAK DHAKAR | 62 | N |
| 25 | 21ETCCS029 | DHIREN SUHALKA | 50 | N |
| 26 | 21ETCCS030 | DHRUV BAGORA | 50 | N |
| 27 | 21ETCCS031 | DIKSHA AGARWAL | 69 | N |
| 28 | 21ETCCS032 | DINESH AUDICHYA | 60 | N |
| 29 | 21ETCCS034 | DIVYANSHU MENARIA | 60 | N |
| 30 | 21ETCCS035 | DIVYANSHU SAHU | 69 | N |
| 31 | 21ETCCS036 | DURGA SANKAR DANGI | 69 | N |
| 32 | 21ETCCS037 | GAGAN MANGAL | 62 | N |
| 33 | 21ETCCS038 | GARVITA BAYA | 69 | N |
| 34 | 21ETCCS039 | GARVITA JAIN | 69 | N |
| 35 | 21ETCCS040 | GAZI AMAN KHAN | 55 | N |
| 36 | 21ETCCS041 | HARSH | 55 | N |
| 37 | 21ETCCS042 | HARSH SONI | 69 | N |
| 38 | 21ETCCS043 | HARSHAL PALIWAL | 57 | N |
| 39 | 21ETCCS044 | HARSHIT PUROHIT | 69 | N |
| 40 | 21ETCCS045 | HARSHIT SHARMA | 64 | N |
| 41 | 21ETCCS046 | HARSHITA RATHORE | 64 | N |
| 42 | 21ETCCS047 | HEET DOSI | 60 | N |
| 43 | 21ETCCS048 | MS HETAL SHARMA | 60 | N |
| 44 | 21ETCCS049 | JAHNAVI JOSHI | 69 | N |
| 45 | 21ETCCS050 | JAINIL JAIN | 69 | N |
| 46 | 21ETCCS051 | JASWANT SINGH RAO | 62 | N |
| 47 | 21ETCCS052 | JATIN VASHISHTHA | 62 | N |
| 48 | 21ETCCS053 | JAY JOSHI | 69 | N |
| 49 | 21ETCCS054 | JAYDEEP DANGI | 69 | N |
| 50 | 21ETCCS055 | JIGYASA CHATURVEDI | 64 | N |
| 51 | 21ETCCS056 | KAILASH JOSHI | 69 | N |
| 52 | 21ETCCS057 | KAMLESH KUMAR GHANCHI | 62 | N |
| 53 | 21ETCCS058 | KANISHKA PARMAR | 69 | N |
| 54 | 21ETCCS059 | KASHVI PANDEY | 62 | N |
| 55 | 21ETCCS060 | KHUSHAL PALIWAL | 64 | N |
| 56 | 21ETCCS061 | KHUSHI GAHLOT | 62 | N |
| 57 | 21ETCCS062 | KHUSHI VANAWAT | 62 | N |
| 58 | 21ETCCS064 | KUNAL CHOUBISA | 57 | N |
| 59 | 21ETCCS065 | KUNAL MENARIA | 57 | N |
| 60 | 21ETCCS066 | KUNAL PALIWAL | 57 | N |
| 61 | 21ETCCS067 | KUNAL SHARMA | 62 | N |
| 62 | 21ETCCS068 | KUNIKA KADECHA(RL) | 62 | N |
| 63 | 21ETCCS069 | LALITA DANGI | 69 | N |
| 64 | 21ETCCS070 | LAVISHA JAIN | 69 | N |
| 65 | 21ETCCS071 | LOKANTIK JAIN | 64 | N |
| 66 | 21ETCCS073 | MAHAK BANSAL | 62 | N |
| 67 | 21ETCCS074 | MANSI GEHLOT | 69 | N |
| 68 | 21ETCCS075 | MAYANK KANERIYA | 69 | N |
| 69 | 21ETCCS076 | MAYANK MALIWAL | 60 | N |
| 70 | 21ETCCS078 | MITANSH JAIN | 55 | N |
| 71 | 21ETCCS079 | MOHAMMED OWAIS KHAN | 57 | N |
| 72 | 21ETCCS081 | NAVNEET ANAND | 64 | N |
| 73 | 21ETCCS082 | NEHAL DHING | 69 | N |
| 74 | 21ETCCS084 | NIPUN MALI | 62 | N |
| 75 | 21ETCCS085 | NISHA LOHAR | 69 | N |
| 76 | 21ETCCS086 | PRADHUMAN SINGH CHAUDHARY | 62 | N |
| 77 | 21ETCCS087 | PRANJAL SINGHVI | 69 | N |
| 78 | 21ETCCS088 | RAJAT PATIDAR | 55 | N |
| 79 | 21ETCCS089 | RIYA JAIN | 69 | N |
| 80 | 21ETCCS090 | ROHIN GANG | 55 | N |
| 81 | 21ETCCS091 | RUPAL SONI | 69 | N |
| 82 | 21ETCCS092 | SAHIL SOLANKI | 62 | N |
| 83 | 21ETCCS093 | SARGAM JAIN | 69 | N |
| 84 | 21ETCCS094 | SATYEN KHARADI | 62 | N |
| 85 | 21ETCCS095 | SHASHANK MENARIA | 62 | N |
| 86 | 21ETCCS096 | SHUBHAM DAS | 62 | N |
| 87 | 21ETCCS097 | SUDEEP ROY | 60 | N |
| 88 | 21ETCCS098 | SUMIT VASITA | 55 | N |
| 89 | 21ETCCS099 | SUYASH SONI | 69 | N |
| 90 | 21ETCCS100 | MS TANISHA KUMAWAT | 69 | N |
| 91 | 21ETCCS101 | TUSHAR YADAV | 55 | N |
| 92 | 21ETCCS102 | VAIBHAV GARG | 60 | N |
| 93 | 21ETCCS103 | VAIBHAV SONI | 69 | N |
| 94 | 21ETCCS104 | VARUN SHARMA | 50 | N |
| 95 | 21ETCCS105 | VEDANSHI PAREEK | 69 | N |
| 96 | 21ETCCS106 | VEDAS DIXIT | 69 | N |
| 97 | 21ETCCS107 | VIKRAM SINGH SISODIYA | 69 | N |
| 98 | 21ETCCS108 | VIMANYU P SHARMA | 60 | N |
| 99 | 21ETCCS109 | VISHAL KUMAWAT | 60 | N |
| 100 | 21ETCCS110 | VISHAL PUSHKARNA | 60 | N |
| 101 | 21ETCCS111 | VYOM BHATT | 69 | N |
| 102 | 21ETCCS112 | YASH JAIN | 62 | N |
| 103 | 21ETCCS113 | YASH JOSHI | 57 | N |
| 104 | 21ETCCS114 | YASH PURI GOSWAMI | 62 | N |
| 105 | 21ETCCS115 | YOGESH JAIPAL | 57 | N |
| 106 | 21ETCCS116 | MS YUVIKA CHOUDHARY | 57 | N |
| 107 | 21ETCCS117 | YUVRAJ SINGH KANAWAT | 57 | N |
| 108 | 21ETCCS300 | NEELAM KATARIYA | 60 | N |
| 109 | 21ETCCS400 | Shabbir Husain | 55 | N |
| 110 | 21ETCCS401 | Ali Hussain | 50 | N |
| 111 | 22ETCCS200 | Saurabh Soni | 64 | N |

**Signature of Faculty: Signature of HOD**

**Model Question Paper**

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**STUDENT PERFORMANCE REPORT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.no** | **ROLL NO.** | **NAME** | **I-MID** | **II-MID** |
|  | 21ETCCS001 | AARSH BHARTI | A | A+ |
|  | 21ETCCS002 | MS AASTHA DAKHERA | A++ | A++ |
|  | 21ETCCS003 | ABHISHEK PRAJAPAT | B++ | B++ |
|  | 21ETCCS005 | AKSHANSH SONI | A | A |
|  | 21ETCCS006 | AKSHAT SINGH CHOUHAN | B++ | B++ |
|  | 21ETCCS007 | ANIRUDH SINGH RAJPUROHIT | B++ | B++ |
|  | 21ETCCS008 | ANISH SINGHAL | A | A+ |
|  | 21ETCCS009 | ANJALI SONI | B | B |
|  | 21ETCCS010 | ANURAG MENARIA | B++ | B++ |
|  | 21ETCCS011 | ANUSHKA VIJAY | A | A+ |
|  | 21ETCCS012 | APURVA LODHA | A++ | A++ |
|  | 21ETCCS013 | ARUN LOHAR | B++ | B++ |
|  | 21ETCCS014 | ARVIND SINGH | A | A |
|  | 21ETCCS015 | ARVIND SUTHAR | B++ | B++ |
|  | 21ETCCS016 | AVANI JOSHI | B++ | B++ |
|  | 21ETCCS017 | AYAN KHAN | A | A+ |
|  | 21ETCCS018 | AYUSH JHOTA | B | B |
|  | 21ETCCS019 | AYUSH TALESARA | B++ | B++ |
|  | 21ETCCS020 | BHAVYA MEHTA | A | A+ |
|  | 21ETCCS021 | BHERU SINGH PANWAR | A++ | A++ |
|  | 21ETCCS022 | MS BHUMIKA VARDAR | B++ | B++ |
|  | 21ETCCS025 | CHINMAY MENARIA | A | A |
|  | 21ETCCS026 | DAKSH VYAS | B++ | B++ |
|  | 21ETCCS027 | DEEPAK DHAKAR | B++ | B++ |
|  | 21ETCCS029 | DHIREN SUHALKA | A | A+ |
|  | 21ETCCS030 | DHRUV BAGORA | B | B |
|  | 21ETCCS031 | DIKSHA AGARWAL | B++ | B++ |
|  | 21ETCCS032 | DINESH AUDICHYA | A | A+ |
|  | 21ETCCS034 | DIVYANSHU MENARIA | A++ | A++ |
|  | 21ETCCS035 | DIVYANSHU SAHU | B++ | B++ |
|  | 21ETCCS036 | DURGA SANKAR DANGI | A | A |
|  | 21ETCCS037 | GAGAN MANGAL | B++ | B++ |
|  | 21ETCCS038 | GARVITA BAYA | B++ | B++ |
|  | 21ETCCS039 | GARVITA JAIN | A | A+ |
|  | 21ETCCS040 | GAZI AMAN KHAN | B | B |
|  | 21ETCCS041 | HARSH | B++ | B++ |
|  | 21ETCCS042 | HARSH SONI | A | A+ |
|  | 21ETCCS043 | HARSHAL PALIWAL | A++ | A++ |
|  | 21ETCCS044 | HARSHIT PUROHIT | B++ | B++ |
|  | 21ETCCS045 | HARSHIT SHARMA | A | A |
|  | 21ETCCS046 | HARSHITA RATHORE | B++ | B++ |
|  | 21ETCCS047 | HEET DOSI | B++ | B++ |
|  | 21ETCCS048 | MS HETAL SHARMA | A | A+ |
|  | 21ETCCS049 | JAHNAVI JOSHI | B | B |
|  | 21ETCCS050 | JAINIL JAIN | B++ | B++ |
|  | 21ETCCS051 | JASWANT SINGH RAO | A | A+ |
|  | 21ETCCS052 | JATIN VASHISHTHA | A++ | A++ |
|  | 21ETCCS053 | JAY JOSHI | B++ | B++ |
|  | 21ETCCS054 | JAYDEEP DANGI | A | A |
|  | 21ETCCS055 | JIGYASA CHATURVEDI | B++ | B++ |
|  | 21ETCCS056 | KAILASH JOSHI | B++ | B++ |
|  | 21ETCCS057 | KAMLESH KUMAR GHANCHI | A | A+ |
|  | 21ETCCS058 | KANISHKA PARMAR | B | B |
|  | 21ETCCS059 | KASHVI PANDEY | B++ | B++ |
|  | 21ETCCS060 | KHUSHAL PALIWAL | A | A+ |
|  | 21ETCCS061 | KHUSHI GAHLOT | A++ | A++ |
|  | 21ETCCS062 | KHUSHI VANAWAT | B++ | B++ |
|  | 21ETCCS064 | KUNAL CHOUBISA | A | A |
|  | 21ETCCS065 | KUNAL MENARIA | B++ | B++ |
|  | 21ETCCS066 | KUNAL PALIWAL | B++ | B++ |
|  | 21ETCCS067 | KUNAL SHARMA | A | A+ |
|  | 21ETCCS068 | KUNIKA KADECHA(RL) | B | B |
|  | 21ETCCS069 | LALITA DANGI | B++ | B++ |
|  | 21ETCCS070 | LAVISHA JAIN | A | A+ |
|  | 21ETCCS071 | LOKANTIK JAIN | A++ | A++ |
|  | 21ETCCS073 | MAHAK BANSAL | B++ | B++ |
|  | 21ETCCS074 | MANSI GEHLOT | A | A |
|  | 21ETCCS075 | MAYANK KANERIYA | B++ | B++ |
|  | 21ETCCS076 | MAYANK MALIWAL | B++ | B++ |
|  | 21ETCCS078 | MITANSH JAIN | A | A+ |
|  | 21ETCCS079 | MOHAMMED OWAIS KHAN | B | B |
|  | 21ETCCS081 | NAVNEET ANAND | B++ | B++ |
|  | 21ETCCS082 | NEHAL DHING | A | A+ |
|  | 21ETCCS084 | NIPUN MALI | A++ | A++ |
|  | 21ETCCS085 | NISHA LOHAR | B++ | B++ |
|  | 21ETCCS086 | PRADHUMAN SINGH CHAUDHARY | A | A |
|  | 21ETCCS087 | PRANJAL SINGHVI | B++ | B++ |
|  | 21ETCCS088 | RAJAT PATIDAR | B++ | B++ |
|  | 21ETCCS089 | RIYA JAIN | A | A+ |
|  | 21ETCCS090 | ROHIN GANG | B | B |
|  | 21ETCCS091 | RUPAL SONI | B++ | B++ |
|  | 21ETCCS092 | SAHIL SOLANKI | A | A+ |
|  | 21ETCCS093 | SARGAM JAIN | A++ | A++ |
|  | 21ETCCS094 | SATYEN KHARADI | B++ | B++ |
|  | 21ETCCS095 | SHASHANK MENARIA | A | A |
|  | 21ETCCS096 | SHUBHAM DAS | B++ | B++ |
|  | 21ETCCS097 | SUDEEP ROY | B++ | B++ |
|  | 21ETCCS098 | SUMIT VASITA | A | A+ |
|  | 21ETCCS099 | SUYASH SONI | B | B |
|  | 21ETCCS100 | MS TANISHA KUMAWAT | B++ | B++ |
|  | 21ETCCS101 | TUSHAR YADAV | A | A+ |
|  | 21ETCCS102 | VAIBHAV GARG | A++ | A++ |
|  | 21ETCCS103 | VAIBHAV SONI | B++ | B++ |
|  | 21ETCCS104 | VARUN SHARMA | A | A |
|  | 21ETCCS105 | VEDANSHI PAREEK | B++ | B++ |
|  | 21ETCCS106 | VEDAS DIXIT | B++ | B++ |
|  | 21ETCCS107 | VIKRAM SINGH SISODIYA | A | A+ |
|  | 21ETCCS108 | VIMANYU P SHARMA | B | B |
|  | 21ETCCS109 | VISHAL KUMAWAT | B++ | B++ |
|  | 21ETCCS110 | VISHAL PUSHKARNA | A | A+ |
|  | 21ETCCS111 | VYOM BHATT | A++ | A++ |
|  | 21ETCCS112 | YASH JAIN | B++ | B++ |
|  | 21ETCCS113 | YASH JOSHI | A | A |
|  | 21ETCCS114 | YASH PURI GOSWAMI | B++ | B++ |
|  | 21ETCCS115 | YOGESH JAIPAL | B++ | B++ |
|  | 21ETCCS116 | MS YUVIKA CHOUDHARY | A | A+ |
|  | 21ETCCS117 | YUVRAJ SINGH KANAWAT | B | B |
|  | 21ETCCS300 | NEELAM KATARIYA | B++ | B++ |
|  | 21ETCCS400 | Shabbir Husain | A | A+ |
|  | 21ETCCS401 | Ali Hussain | A++ | A++ |
|  | 22ETCCS200 | Saurabh Soni | B++ | B++ |

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|  |
|  |

**Signature of Faculty: Signature of HOD**

**RESULT ANALYSIS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO.** | **RTU ROLL NUMBER** | **NAME OF STUDENT** | **END TERM MARKS** | **SESSIONAL MARKS** | **TOTAL** |
| **MAX MARKS** | **70** | **30** | **100** |
| **Set Target Level** | | | **60%** | **75%** |  |
|  | 21ETCCS001 | AARSH BHARTI | 51 | 27 | 78 |
|  | 21ETCCS002 | MS AASTHA DAKHERA | 55 | 30 | 85 |
|  | 21ETCCS003 | ABHISHEK PRAJAPAT | 34 | 25 | 59 |
|  | 21ETCCS005 | AKSHANSH SONI | 37 | 27 | 64 |
|  | 21ETCCS006 | AKSHAT SINGH CHOUHAN | 27 | 25 | 52 |
|  | 21ETCCS007 | ANIRUDH SINGH RAJPUROHIT | 37 | 25 | 62 |
|  | 21ETCCS008 | ANISH SINGHAL | 44 | 28 | 72 |
|  | 21ETCCS009 | ANJALI SONI | 44 | 24 | 68 |
|  | 21ETCCS010 | ANURAG MENARIA | 39 | 25 | 64 |
|  | 21ETCCS011 | ANUSHKA VIJAY | 30 | 27 | 57 |
|  | 21ETCCS012 | APURVA LODHA | 47 | 30 | 77 |
|  | 21ETCCS013 | ARUN LOHAR | 55 | 27 | 82 |
|  | 21ETCCS014 | ARVIND SINGH | 44 | 26 | 70 |
|  | 21ETCCS015 | ARVIND SUTHAR | 49 | 25 | 74 |
|  | 21ETCCS016 | AVANI JOSHI | 54 | 24 | 78 |
|  | 21ETCCS017 | AYAN KHAN | 52 | 26 | 78 |
|  | 21ETCCS018 | AYUSH JHOTA | 55 | 27 | 82 |
|  | 21ETCCS019 | AYUSH TALESARA | 41 | 24 | 65 |
|  | 21ETCCS020 | BHAVYA MEHTA | 58 | 22 | 80 |
|  | 21ETCCS021 | BHERU SINGH PANWAR | 49 | 27 | 76 |
|  | 21ETCCS022 | MS BHUMIKA VARDAR | 39 | 27 | 66 |
|  | 21ETCCS025 | CHINMAY MENARIA | 43 | 24 | 67 |
|  | 21ETCCS026 | DAKSH VYAS | 37 | 27 | 64 |
|  | 21ETCCS027 | DEEPAK DHAKAR | 36 | 27 | 63 |
|  | 21ETCCS029 | DHIREN SUHALKA | 26 | 22 | 48 |
|  | 21ETCCS030 | DHRUV BAGORA | 49 | 22 | 71 |
|  | 21ETCCS031 | DIKSHA AGARWAL | 57 | 30 | 87 |
|  | 21ETCCS032 | DINESH AUDICHYA | 46 | 26 | 72 |
|  | 21ETCCS034 | DIVYANSHU MENARIA | 31 | 26 | 57 |
|  | 21ETCCS035 | DIVYANSHU SAHU | 50 | 30 | 80 |
|  | 21ETCCS036 | DURGA SANKAR DANGI | 54 | 30 | 84 |
|  | 21ETCCS037 | GAGAN MANGAL | 38 | 27 | 65 |
|  | 21ETCCS038 | GARVITA BAYA | 65 | 30 | 95 |
|  | 21ETCCS039 | GARVITA JAIN | 57 | 30 | 87 |
|  | 21ETCCS040 | GAZI AMAN KHAN | 34 | 24 | 58 |
|  | 21ETCCS041 | HARSH | 58 | 24 | 82 |
|  | 21ETCCS042 | HARSH SONI | 55 | 30 | 85 |
|  | 21ETCCS043 | HARSHAL PALIWAL | 46 | 25 | 71 |
|  | 21ETCCS044 | HARSHIT PUROHIT | 54 | 30 | 84 |
|  | 21ETCCS045 | HARSHIT SHARMA | 54 | 28 | 82 |
|  | 21ETCCS046 | HARSHITA RATHORE | 47 | 28 | 75 |
|  | 21ETCCS047 | HEET DOSI | 38 | 26 | 64 |
|  | 21ETCCS048 | MS HETAL SHARMA | 59 | 26 | 85 |
|  | 21ETCCS049 | JAHNAVI JOSHI | 49 | 30 | 79 |
|  | 21ETCCS050 | JAINIL JAIN | 45 | 30 | 75 |
|  | 21ETCCS051 | JASWANT SINGH RAO | 43 | 27 | 70 |
|  | 21ETCCS052 | JATIN VASHISHTHA | 52 | 27 | 79 |
|  | 21ETCCS053 | JAY JOSHI | 44 | 30 | 74 |
|  | 21ETCCS054 | JAYDEEP DANGI | 48 | 30 | 78 |
|  | 21ETCCS055 | JIGYASA CHATURVEDI | 44 | 28 | 72 |
|  | 21ETCCS056 | KAILASH JOSHI | 44 | 30 | 74 |
|  | 21ETCCS057 | KAMLESH KUMAR GHANCHI | 49 | 27 | 76 |
|  | 21ETCCS058 | KANISHKA PARMAR | 55 | 30 | 85 |
|  | 21ETCCS059 | KASHVI PANDEY | 42 | 27 | 69 |
|  | 21ETCCS060 | KHUSHAL PALIWAL | 45 | 28 | 73 |
|  | 21ETCCS061 | KHUSHI GAHLOT | 53 | 27 | 80 |
|  | 21ETCCS062 | KHUSHI VANAWAT | 50 | 27 | 77 |
|  | 21ETCCS064 | KUNAL CHOUBISA | 35 | 25 | 60 |
|  | 21ETCCS065 | KUNAL MENARIA | 43 | 25 | 68 |
|  | 21ETCCS066 | KUNAL PALIWAL | 42 | 25 | 67 |
|  | 21ETCCS067 | KUNAL SHARMA | 34 | 27 | 61 |
|  | 21ETCCS068 | KUNIKA KADECHA(RL) | 45 | 27 | 72 |
|  | 21ETCCS069 | LALITA DANGI | 40 | 30 | 70 |
|  | 21ETCCS070 | LAVISHA JAIN | 46 | 30 | 76 |
|  | 21ETCCS071 | LOKANTIK JAIN | 42 | 28 | 70 |
|  | 21ETCCS073 | MAHAK BANSAL | 51 | 27 | 78 |
|  | 21ETCCS074 | MANSI GEHLOT | 56 | 30 | 86 |
|  | 21ETCCS075 | MAYANK KANERIYA | 44 | 30 | 74 |
|  | 21ETCCS076 | MAYANK MALIWAL | 43 | 26 | 69 |
|  | 21ETCCS078 | MITANSH JAIN | 35 | 24 | 59 |
|  | 21ETCCS079 | MOHAMMED OWAIS KHAN | 40 | 25 | 65 |
|  | 21ETCCS081 | NAVNEET ANAND | 46 | 28 | 74 |
|  | 21ETCCS082 | NEHAL DHING | 47 | 30 | 77 |
|  | 21ETCCS084 | NIPUN MALI | 42 | 27 | 69 |
|  | 21ETCCS085 | NISHA LOHAR | 57 | 30 | 87 |
|  | 21ETCCS086 | PRADHUMAN SINGH CHAUDHARY | 54 | 27 | 81 |
|  | 21ETCCS087 | PRANJAL SINGHVI | 42 | 30 | 72 |
|  | 21ETCCS088 | RAJAT PATIDAR | 50 | 24 | 74 |
|  | 21ETCCS089 | RIYA JAIN | 57 | 30 | 87 |
|  | 21ETCCS090 | ROHIN GANG | 36 | 24 | 60 |
|  | 21ETCCS091 | RUPAL SONI | 51 | 30 | 81 |
|  | 21ETCCS092 | SAHIL SOLANKI | 56 | 27 | 83 |
|  | 21ETCCS093 | SARGAM JAIN | 63 | 30 | 93 |
|  | 21ETCCS094 | SATYEN KHARADI | 47 | 27 | 74 |
|  | 21ETCCS095 | SHASHANK MENARIA | 38 | 27 | 65 |
|  | 21ETCCS096 | SHUBHAM DAS | 50 | 27 | 77 |
|  | 21ETCCS097 | SUDEEP ROY | 36 | 26 | 62 |
|  | 21ETCCS098 | SUMIT VASITA | 30 | 24 | 54 |
|  | 21ETCCS099 | SUYASH SONI | 53 | 30 | 83 |
|  | 21ETCCS100 | MS TANISHA KUMAWAT | 54 | 30 | 84 |
|  | 21ETCCS101 | TUSHAR YADAV | 29 | 24 | 53 |
|  | 21ETCCS102 | VAIBHAV GARG | 41 | 26 | 67 |
|  | 21ETCCS103 | VAIBHAV SONI | 55 | 30 | 85 |
|  | 21ETCCS104 | VARUN SHARMA | 51 | 22 | 73 |
|  | 21ETCCS105 | VEDANSHI PAREEK | 55 | 30 | 85 |
|  | 21ETCCS106 | VEDAS DIXIT | 53 | 30 | 83 |
|  | 21ETCCS107 | VIKRAM SINGH SISODIYA | 55 | 30 | 85 |
|  | 21ETCCS108 | VIMANYU P SHARMA | 53 | 26 | 79 |
|  | 21ETCCS109 | VISHAL KUMAWAT | 36 | 26 | 62 |
|  | 21ETCCS110 | VISHAL PUSHKARNA | 46 | 26 | 72 |
|  | 21ETCCS111 | VYOM BHATT | 55 | 30 | 85 |
|  | 21ETCCS112 | YASH JAIN | 52 | 27 | 79 |
|  | 21ETCCS113 | YASH JOSHI | 34 | 25 | 59 |
|  | 21ETCCS114 | YASH PURI GOSWAMI | 39 | 27 | 66 |
|  | 21ETCCS115 | YOGESH JAIPAL | 35 | 25 | 60 |
|  | 21ETCCS116 | MS YUVIKA CHOUDHARY | 46 | 25 | 71 |
|  | 21ETCCS117 | YUVRAJ SINGH KANAWAT | 33 | 25 | 58 |
|  | 21ETCCS300 | NEELAM KATARIYA | 46 | 26 | 72 |
|  | 21ETCCS400 | Shabbir Husain | 49 | 24 | 73 |
|  | 21ETCCS401 | Ali Hussain | 40 | 22 | 62 |
|  | 22ETCCS200 | Saurabh Soni | 42 | 28 | 70 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TOTAL | PASS | FAIL | ABSENT | PASS % |
| 111 | 111 | 0 | 0 | 100 |

**Indirect Assessment:**

**Overall Teacher Self Assessment (at the completion of course) in terms of course objective and outcomes**

**Course Objectives:**

To understand the fundamental concepts of compilers.

To learn about lexical analysis, syntax analysis, and semantic analysis.

To implement compiler components and tools.

To apply compiler design principles to practical projects.

**Course Outcomes**:

Students can explain the theory and principles of compiler design.

Students can perform lexical analysis and syntax analysis of a given programming language.

Students can implement a basic compiler that generates intermediate code.

Students can apply their knowledge to complete a compiler project.

**Methodology to identify bright student**

Considered a range of criteria, including academic performance, creativity, critical thinking, problem-solving skills, and enthusiasm for learning. Bright students often excel in multiple areas. Observed how students perform in the classroom. In terms of active participation, engagement in discussions, leadership, and the ability to grasp complex concepts.

**Efforts to keep students engaged**

1. Active Learning:
   * Incorporate active learning strategies, such as group discussions, problem-solving activities, and hands-on projects. Active participation keeps students engaged and encourages critical thinking.
2. Varied Teaching Methods:
   * Use a variety of teaching methods, including lectures, group work, multimedia presentations, and interactive activities to cater to different learning preferences.
3. Technology Integration:
   * Leverage technology, such as online platforms, educational apps, and interactive software, to make lessons more engaging and interactive.

Some extra learning for bright students

1. <https://www.geeksforgeeks.org/static-and-dynamic-scoping/?ref=lbp>

2. <https://www.javatpoint.com/lex>

3. <https://www.javatpoint.com/bnf-notation>.

**Methodology to identify weak student**

Considered a range of criteria, including classroom observation, formative assessment, summative assessment, assignment review e.t.c. Weak students are struggling students with sensitivity and a desire to support their learning. Some measures, such as additional tutoring, personalized assignments, or alternative assessment methods, to help students succeed.

**Targeted inventions for weak student**

**1. Additional Resources**

Offer supplementary learning materials, such as textbooks, online resources, or multimedia content, to provide alternative explanations and reinforce key concepts.

**2. Remedial classes**

Establish a tutoring program where students can receive extra help from teachers.

**3. Flipped classroom**

Students are assigned pre-class learning materials, often in the form of videos, readings, or online modules, to cover the foundational concepts before coming to class.

Some additional resources or links for student to improve their understanding for topic

1. <https://archive.nptel.ac.in/courses/106/104/106104123/>

2. Compiler design by ravindrababu ravula

3. Compiler design by Neso academy.

4. **Chattopadhyay's "Compiler Design"**  
The book's themes are arranged systematically, from analysis to manufacturing to checking codes. It covers subjects including the**theory and design** of linguistic analysis, **parsers, and code generation methods.**