

H.T No:

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**R18**

Course Code: A30523



**CMR COLLEGE OF ENGINEERING & TECHNOLOGY**  
(UGC AUTONOMOUS)

B.Tech VI Semester Supplementary Examinations December-2022

Course Name: **WEB TECHNOLOGIES**

(Common for CSE & IT)

Date: 05.12.2022 FN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

**PART-A**

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. What is PHP? What are its applications? 2 M
2. Enumerate few Built-in functions in PHP. 2 M
3. What are different types of Lists in HTML? 2 M
4. What is DOM? 2 M
5. What is a Session? 2 M
6. List out different ways to connect to a Database using Servlets. 2 M
7. What are the problems with Servlets? 2 M
8. Write any 3 html tags with example. 2 M
9. What is Scripting? Can Java Script used for Server Programming? 2 M
10. What are the Scoping rules for Java Script? 2 M

**PART-B**

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). How to handle Sessions and Cookies in PHP? 10M
- OR**
11. B). Explain the predefined and user-defined functions in PHP with example. 10M
12. A). What are HTML Forms? Differentiate between GET and POST methods. Design a HTML form to read the student details. 10M
- OR**
12. B). Explain in detail about XML tags, attributes and values. 10M
13. A). Illustrate and explain the Life Cycle of a Servlet. 10M
- OR**
13. B). How to handle HTTP request and response in a Servlet? Explain with example. 10M
14. A). Explain how Sessions are handled in JSP. 10M
- OR**
14. B). How connections to Database are made using JSP? Explain with example. 10M
15. A). Explain the Process of Form Validation in Java Script with an example. 10M
- OR**
15. B). How Event Handling takes place in Java Script? Illustrate with an example. 10M

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R18

Course Code: A30519



## CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VI Semester Supplementary Examinations December-2022

Course Name: **COMPILER DESIGN**

(Computer Science & Engineering)

Date: 07.12.2022 FN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

- |     |  |     |
|-----|--|-----|
| 1.  | What is Input Buffering? What is Sentinels?              | 2 M |
| 2.  | What do you mean by Lexeme, Tokens and Patterns?         | 2 M |
| 3.  | What do you mean by augmented grammar?                   | 2 M |
| 4.  | What is handle? Give example.                            | 2 M |
| 5.  | What is parse tree and annotated parse tree?             | 2 M |
| 6.  | What do you mean by dependency graph?                    | 2 M |
| 7.  | What do you mean by three address code? Give an example? | 2 M |
| 8.  | What is CFG? Give example.                               | 2 M |
| 9.  | Why register allocation algorithms are important?        | 2 M |
| 10. | What do you mean by Partial redundancy elimination?      | 2 M |

### PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- |        |  |    |
|--------|--|----|
| 11.A). | i) In the process of compilation consider the following statement $X=a + b * c$ Explain what will be the output at each stages of compilation. | 6M |
|        | ii) Differentiate: Compiler and Interpreter.   | 4M |

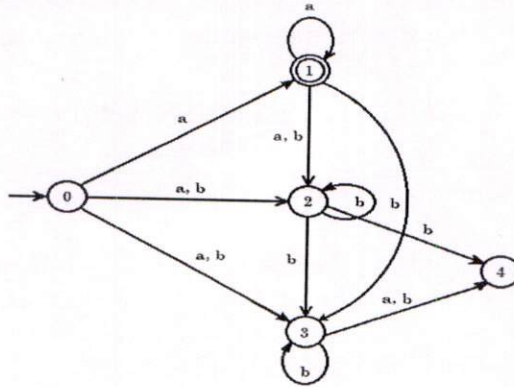
OR

- |         |  |    |
|---------|--|----|
| 11. B). | i) What do you mean by language processing system? Explain with diagram                          | 5M |
|         | ii) Explain different cousins of compilers like assemblers, linker, loader, macro-processor etc. | 5M |
| 12. A). | i) What are the conditions a grammar to be LL(1)   | 2M |
|         | ii) Consider the grammar:  | 4M |
|         | $S \rightarrow AaAb BbBa$  |    |
|         | $A \rightarrow \epsilon$   |    |
|         | $B \rightarrow \epsilon$   |    |
|         | Check the above grammar is LL(1) or not?   |    |
|         | iii) Draw the parse table  | 4M |

(P.T.O..)

OR

12. B). What do you mean by NFA and DFA? Explain with suitable examples. Convert the following NFA to the equivalent DFA: Diagram is given below: 10M



13. A). i) What is terminal table and literal table? 2M  
ii) What is dependency Graph? Give example. 2M  
iii) What do you mean by Synthesized attribute and inherited attributes? 3M  
iv) What do you mean by S Attributed and L attributed definition? 3M

OR

13. B). i) Explain Symbol Table and its organization 3M  
ii) Explain Activation record 2M  
iii) What is activation tree 2M  
iv) Explain Nesting Depth Approach. 3M

14. A). i) Generate the three address code for the following code: 5M

```
while(A<C and B>D)do
  if A=1 then C=C+1
  else
```

```
    while A<=D do
      A=A+3
```

- ii) Construct DAG for the following basic block:

```
d: = b+c
e: = a+b
b: =b*c
a: = e-d.
```

5M

OR

14. B). i) What do you mean by Basic Block and CFG? 4M  
ii) Consider the following expression and represent it into quadruple, triple, indirect three address mode representation:  $x=(a+b)*(c+d)+(a+b+c)$  6M

15. A). What do you mean by machine dependent and machine independent optimization? 10M

OR

15. B). Discuss about the below topics: 5M  
i) Peephole Optimization 5M  
ii) Partial Redundancy Elimination 5M

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**R18**

Course Code: A30521



**CMR COLLEGE OF ENGINEERING & TECHNOLOGY**  
(UGC AUTONOMOUS)

B.Tech VI Semester Supplementary Examinations December-2022

Course Name: **SCRIPTING LANGUAGES**

(Common for CSE & IT)

Date: 09.12.2022 FN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

**PART-A**

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Why is Ruby known as a Language of Flexibility? 2 M
2. List some features of Ruby. 2 M
3. What are class libraries used in ruby? 2 M
4. Name the three levels of access of control for ruby methods. 2 M
5. What is PERL? 2 M
6. How many types of primary Data types in PERL give any two syntax? 2 M
7. What is Ruby package manager? 2 M
8. What is eval function in Perl? 2 M
9. Define TCL. How it works. 2 M
10. Differentiate between TCL and TK. 2 M

**PART-B**

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain Ruby data type in detail with example. 10M
- OR**
11. B). Explain the structure of ruby program. Write a ruby program to print "Hello World". 10M
12. A). What is the function of garbage collection in ruby on rail? Explain. 10M
- OR**
12. B). Give detail description on embedding a ruby interpreter. 10M
13. A). What are the advantages of Scripting Languages. 10M
- OR**
13. B). Explain Control statements in Perl with Example. 10M
14. A). Explain dirty hand internet exploration. 10M
- OR**
14. B). Write a program to concatenate the \$firststring and \$secondstring and result of these strings should be separated by a single space. 10M
15. A). Briefly explain TCL structure in detail. 10M
- OR**
15. B). Explain string concept in TCL. How to check weather a string is palindrome or not using TCL script. 10M

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R18

Course Code: A30558



**CMR COLLEGE OF ENGINEERING & TECHNOLOGY**  
(UGC AUTONOMOUS)

B.Tech VI Semester Supplementary Examinations December-2022

Course Name: DATA VISUALIZATION

(Computer Science & Engineering)

Date: 12.12.2022 FN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

**PART-A**

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Draw the knowledge discovery pipeline with its components. 2 M
2. Classify the types of data used in data visualization. 2 M
3. Identify the approaches that are used to visualize volume data. 2 M
4. Define geospatial data. 2 M
5. Give an example of time-oriented data. 2 M
6. What is a heatmap? 2 M
7. Define a triconnected graph. 2 M
8. Compare the three levels of text representations. 2 M
9. Mention any two guidelines for effective use of color in visualization. 2 M
10. Define a visual mapping. 2 M

**PART-B**

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Describe the steps involved in applying principal component analysis to accomplish dimension reduction. 10M
- OR**
11. B). Explain eight visual variables with example. 10M
12. A). Illustrate how line integral convolution approach is used for vector field visualization with its algorithmic steps and suitable example. 10M
- OR**
12. B). Explain the classification of map projections based on the surfaces used for visualizing geospatial data. 10M
13. A). Illustrate how will you visualize time-oriented data with an example. 10M
- OR**
13. B). Explain the point-based techniques used for visualizing multivariate data. 10M
14. A). Summarize the non-space filling methods of displaying hierarchical structures. 10M
- OR**
14. B). Explain the various types of single document visualizations. 10M
15. A). Summarize the problems faced while designing effective visualizations. 10M
- OR**
15. B). Illustrate the steps involved in designing visualizations for text analysis. 10M

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**R18**

Course Code: A30532



**CMR COLLEGE OF ENGINEERING & TECHNOLOGY**  
(UGC AUTONOMOUS)

B.Tech VI Semester Supplementary Examinations December-2022

Course Name: **SOFTWARE PROJECT MANAGEMENT**

(Common for CSE & IT)

Date: 12.12.2022 FN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

**PART-A**

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Summarize any four characteristics of a successful object-oriented project. 2 M
2. List out important trends in improving software economics. 2 M
3. List out the seven top level workflows. 2 M
4. Outline a typical vision document. 2 M
5. Summarize the information structure of a WBS. 2 M
6. List out various stakeholders involved in major milestone. 2 M
7. Outline the basic fields of software change order. 2 M
8. Illustrate a typical project release sequence for a large-scale project. 2 M
9. Define the term MTBF. 2 M
10. Summarize the four graphical objects required for a software project manager role. 2 M

**PART-B**

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Outline the five improvements to the waterfall model that would eliminate most of the development risks. 10M
- OR**
11. B). Build and explain the relationship among the five basic parameters that are used in most software cost models. 10M
12. A). Analyze how requirements, design, implementation and deployment artifacts which are part of engineering sets evolve over time. 10M
- OR**
12. B). What does each of the views (design, process, component, deployment) address in the software architecture? Explain with an example. 10M
13. A). Identify various stages in an Iteration planning process and briefly explain about them. 10M
- OR**
13. B). Illustrate how periodic status assessments serve as project snapshots. 10M
14. A). Analyze how round trip engineering helps to maintain consistency among the engineering artifacts. 10M
- OR**
14. B). Classify project organization and map various project level roles and responsibilities. 10M

(P.T.O..)



15. A). Explain the four quality indicators that are required for the measurement of software change order. 10M

**OR**

15. B). Explain the two primary dimensions of process variability. 10M

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**R18**

Course Code: C30164



**CMR COLLEGE OF ENGINEERING & TECHNOLOGY**

(UGC AUTONOMOUS)

B.Tech VI Semester Supplementary Examinations December-2022

Course Name: **ENTREPRENEURSHIP**

(Computer Science & Engineering)

Date: 16.12.2022 FN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

**PART-A**

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Define entrepreneur. 2 M
2. Name four Indian entrepreneurs. 2 M
3. Who is corporate entrepreneur? 2 M
4. Write about entrepreneurial ego. 2 M
5. What is franchising? 2 M
6. What is entrepreneurial creativity? 2 M
7. Define patent. 2 M
8. What is trademark? 2 M
9. What are strategic actions? 2 M
10. What do you mean by business stabilization? 2 M

**PART-B**

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Discuss the evolution of entrepreneurship in India. 10M
- OR**
11. B). Explain twenty-first-century trends in entrepreneurship. 10M
12. A). Write about the importance of studying an entrepreneurial mindset. 10M
- OR**
12. B). Determine how corporate entrepreneurship can be sustained. 10M
13. A). List out the advantages and disadvantages of Franchising in India. Name some franchisees in India. 10M
- OR**
13. B). How do entrepreneurs launch their new ventures? Explain. 10M
14. A). What are the legal challenges of entrepreneurship business? Elaborate. 10M
- OR**
14. B). Determine the new challenges of new venture start-up in India. 10M
15. A). Discuss strategic perspectives in entrepreneurship development. 10M
- OR**
15. B). Business stabilization is necessary for building startups. Explain. 10M

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