

Bajaj College of Science, Wardha

Practice Sheet During Lockdown

B.Sc. Sem VI

Subject: Computer Science

Unit - I

Long answer type questions:

1. Differentiate between compiler and interpreter.
2. Explain the different phases of compiler in detail with suitable diagram.
3. Explain the various errors encountered in different phases of a compiler.
4. Explain the need for grouping of phases of a compiler.
5. Write a short note on preprocessor.
6. State and explain various compiler construction tools.
7. What is three-address coding? Explain its representation with suitable example.
8. Explain Bootstrapping with suitable example.
9. Describe intermediate code generation phase with example.
10. Write a short note on book keeping.

Short answer type questions:

1. What is a translator and what are its types?
2. Define an assembler.
3. What are the classifications of compilers?
4. Define compiler.
5. What are the two parts of compilation?
6. Define symbol table.
7. Define a macro with suitable example.
8. What are the functions of preprocessor?
9. What is the front end and back end of a compiler?
10. What is a Language Processing system?

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Unit - II

Long answer type questions:

1. What are the various features of High Level Language? Explain.
2. Define programming language and explain syntax and semantics of programming language.
3. Explain the various approaches to the specification of semantics of a programming language.
4. Draw and explain hierarchical structure of a programming language.
5. Write a short note on the lexical and syntactic structure of a language.
6. What is an array? List and explain types of an array.
7. What is operator? Explain different types of operators found in high level language.
8. Explain call-by-reference and call-by-value with suitable example in High Level Language.
9. How is static storage allocation and dynamic storage allocation managed in High Level Language? Explain.
10. Discuss in brief storage management.

Short answer type questions:

1. Write a short note on Attributes and Declaration.
2. Explain parameter transmission call by value.
3. Explain parameter transmission call by name.
4. Define string and empty string.
5. List tokens and give one example of each.
6. What is buffer? Give its importance.
7. What are the various categories of statements in programming languages? Explain.
8. What do you mean by stack allocation of storage management?
9. What are the various data elements of programming language? Explain.
10. What are the various ways for implementation of assignment in programming language?

Unit - III

Long answer type questions:

1. Explain Top-Down parsing with example.
2. Write a short note on a simple code generator.
3. Explain loop optimization with suitable example.
4. What do you mean by operator precedence parsing? Explain with example.
5. Explain DAG representation of basic blocks.
6. Write a short note on symbol table.
7. Which data structure is most suitable for symbol table? Explain any one.
8. Explain predictive parsing with example.
9. What are the various problems in code generation?
10. Explain register allocation and assignment.

Short answer type questions:

1. Explain shift reduce parsing with example.
2. What is DAG? Explain using example.
3. What are the capabilities of a symbol table?
4. Write a short note on machine model.
5. Write a short note on parsers?
6. How to reuse space in symbol table?
7. Explain list data structure for a symbol table.

Unit - IV

Long answer type questions:

1. List and explain any ten CODD's rules.
2. Explain any four objects in SQL.
3. Explain DDL and DML commands with syntax and example.
4. Explain primary key and foreign key with an example.
5. Explain alter command with all option in detail.
6. Explain various types of joins in short.
7. List and explain all arithmetic functions available in SQL.
8. List and explain character functions in SQL.

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9. What is sub query? Explain it with suitable example.
10. Define synonym. Explain in detail.

Short answer type questions:

1. Differentiate SQL and PL/SQL?
2. List data types of SQL.
3. Write syntax of grant and revoke commands
4. Explain any four Date function with example
5. Define sequence.
6. What is a unique key constraint?
7. Explain to_char() and to_number() functions.
8. How to add column in table?
9. How to constraints at table level?
10. Write a query for:

Select that employee in emp table who has most experience one.

Unit - V

Long answer type questions:

1. What is View? Write syntax purpose and example of creating view.
2. What are the various types of view? How view is useful.
3. List and explain all sections of PL/SQL block.
4. Write a PL/SQL block to check entered number is prime or not.
5. Write a PL/SQL block to display the following series of numbers:
99,96,93.....9,6,3.
6. Write a PL/SQL block to print reverse of a given number. Eg. 1234->4321.
7. Write a PL/SQL block to print
8. What are the steps to create user-defined exception
9. Define cursor. Explain how works in detail with an example is.
10. Explain explicit cursor with suitable example.

Short answer type questions:

1. Explain Materialized view.
2. Write syntax of creating cursor.
3. Explain purity level of function
4. Differentiate between syntax error and runtime error.
5. Enlist any five predefined exceptions?
6. What are the three modes of parameters?
7. List cursor attributes. Explain any two.
8. Explain the purpose of %TYPE and %ROWTYPE data types with the example?
9. List operators supported by PL/SQL.
10. Write syntax of following loop construct i) while ii)for

Unit - VI

Long answer type questions:

1. Define function. Write syntax and example for creating a function.
2. What is procedure? Write syntax and example for creating a procedure.
3. Write a procedure in PL/SQL to find the greater of two numbers.
4. Define Trigger? Write syntax and example of Trigger.
5. Explain types of Trigger with example.
6. Write a function in PL/SQL to find the factorial of given number n
7. Create a trigger that restricts a user to insert a row on emp table on 'Sunday'.
8. Write a function in PL/SQL to find the greatest of three numbers.
9. Write a procedure in PL/SQL to generate Fibonacci series.
10. Write a function in PL/SQL to find number is prime or not.

Short answer type questions:

1. Define procedure.
2. What are the various types of trigger?
3. Differentiate between procedure and function.
4. List any five uses of trigger.
5. Differentiate between cursor and trigger.

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6. Explain how trigger are enable and disable.
7. What are the benefits of procedure and funtions.
8. List at what situation trigger is fired.
9. Explain RAISE_APPLICATION_ERROR().
10. Convert all the movie name into the upper case on insertion of each row.

For any queries, feel free to contact us on E-mail/ Whats App No.: