

## Predicted Question Paper

**Subject:** Compiler Design

**Semester:** 5

**College:** bit

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**1. Find the minimum state DFA for the regular expression  $ab(a/b)^*abb$ .**

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**Repeated:** 2 times

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**Modules:** Unit-I

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**Marks:** 8

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**2. Write short notes on i. Compiler writing tools ii. Role of Lexical Analyzer**

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**Repeated:** 2 times

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**Modules:** Unit-I

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**Marks:** 8

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**3. Construct minimum state DFA for regular expression  $(0 + 1)^* 00 + 01$ .**

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**Repeated:** 2 times

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**Modules:** Unit-I

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**Marks:** 8

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**4. Differentiate between top down parsing and bottom up parsing?**

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**Repeated:** 2 times

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**Modules:** Unit-II

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**Marks:** 4

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**5. Write the Translation scheme to produce three- address code for assignment statements**

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**Repeated:** 2 times

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**Modules:** Unit-III

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**Marks:** 4, 8

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**6. Using the given grammar, write the syntax directed definitions to evaluate an expression.  
Construct the annotated parse tree for the sentence  $2+3*7$ .  $E \rightarrow E+T \mid T \mid T \rightarrow T * F \mid F \mid F \rightarrow (E) \mid \text{num}$**

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**Repeated:** 2 times

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**Modules:** Unit-III

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**Marks:** 8

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**7. What is activation record? Explain different fields in the activation record.**

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**Repeated:** 3 times

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**Modules:** Unit-IV

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**Marks:** 8

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**8. Explain Stack, Static and Heap allocation strategies.**

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**Repeated:** 2 times

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**Modules:** Unit-IV

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**Marks:** 8, 4

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**9. What is the use of symbol table? Explain different ways to implement symbol table and explain various fields of symbol table.**

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**Repeated:** 3 times

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**Modules:** Unit-IV

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**Marks:** 8

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**10. Define the term loop optimization.**

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**Repeated:** 2 times

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**Modules:** Unit-V

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**Marks: 4**

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**11. Explain in brief issues in the design the code generator.**

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**Repeated: 2 times**

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**Modules: Unit-V**

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**Marks: 8**

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**12. Discuss the major issues of code generation.**

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**Repeated: 2 times**

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**Modules: Unit-V**

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**Marks: 8**

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