

- (b) Write the Syntax Directed definition to produce three address code for assignments. 8

**Or**

Write the translation scheme to produce *three* address code for assignment.

6. (a) What is variable propagation and code motion ? 2

- (b) Draw the DAG for the following TAC 8

(1)  $t_1 = 4 * i$

(2)  $t_2 = a[t_1]$

(3)  $t_3 = 4 * i$

(4)  $t_4 = b[t_3]$

(5)  $t_5 = t_2 * t_4$

(6)  $t_6 = \text{Prod} + t_5$

(7)  $\text{Prod} = t_6$

(8)  $t_7 = i + 1$

(9)  $i = t_7$

(10) if  $i \leq 20$  goto(1)

**Or**

What is Register and Address descriptors ?  
Write code generation Algorithm.

Total number of printed pages-8

**44 (5) CODG/WBTC O/N 5-2**

**2013**

## **WEB TECHNOLOGY**

( New Course )

**Paper : 5-2**

Full Marks : 80

Time : Three hours

**The figures in the margin indicate full marks for the questions.**

Answer **Q. No. 1** and **any six** from the rest.

1. (a) What is Website ? 1×8
- (b) What is the use of image map ?
- (c) Write a form of style rules with an example.
- (d) What is Cookie ?
- (e) What is DTD ?
- (f) Define Server Side Scripting
- (g) What are the features of Java Script ?
- (h) Define ASP.

*Contd.*



2. (a) What is URL ? Why it is important ?  
3×4=12
- (b) Mention three services of internet.
- (c) What is ARPANET ?
- (d) Explain *three* different types of internet connection.
3. (a) What do you mean by IP address ? Explain its working.  
1+4=5
- (b) Explain how a client server architecture works in a dynamic environment ? 4
- (c) What do you mean by helper application ? Mention few helper application of a web browser. 3
4. (a) Why VB Script is usually used as server side scripting language and Java Script as Client Side Scripting ? Why Server Script Codes are not visible in browser ? 4+2=6
- (b) What do you mean by APL ? How can we connect it to a data base using ADO ?  
2+4=6

5. Write the following programs using Java Script  
3×4=12
- (a) To show current date and time.
- (b) To display an alert box and confirm box.
- (c) To accept an array and display its length and all the elements.
- (d) To convert a given string to upper case and lower case.
6. (a) What is firewall ? 2
- (b) Describe briefly the COM architecture. 6
- (c) Explain the role of IDL and CORBA. 4
7. Write HTML Code to generate a web page in the format given below :
- (i) Title of the page should be "Hospitality Industry". 1
- (ii) Background colour of the page should be 'Silver', link colour should be "Maroon", visited link colour should be 'red'. 3
- (iii) Picture used in the page should have title "nature.jpg". 2
- (iv) Table should have border of width 2. 2



(v) Use the concept of nested list for creating the list given in the webpage with specified bullets. 2

(vi) Page link to front office as "front.html" food and beverage as "food.html" 2

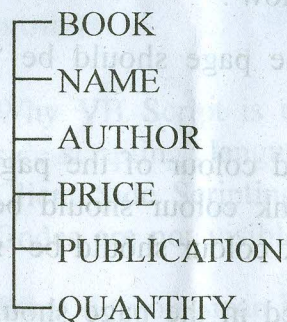
8. (a) What is CGI ? 2

(b) Write the meaning of the following HTML tags with example. 5

iFRAM, PRE, SELECT, EMBED, No Break

(c) Write a DTD in XML for Book 5

#### BOOK DETAILS



With the following conditions.

(i) The book may be sent to one or more receiver.

(ii) The book may or may not have ISBN No.

(iii) The book may have many authors.



# COMPILER DESIGN

( Old Course )

1. (a) Explain in detail the process of compilation of each phase for the following program fragment

$$T1 = T2 * T3 + 2 * 6.3 + 2 * T2 \quad 6$$

- (b) What is symbol table ? Explain. 2

2. (a) What are the role of Laxical Analyser. 4

- (b) Find NFA, DFA and Min DFA for the regular expression 6

$$((aa)*b(aa)*)|(a(aa)*ba(aa)*)$$

**Or**

Explain the Thompson's rule for conversion of regular expression to NFA.

- (c) What is regular expression ? 2
  - (d) What are different Lex functions ? 4
3. (a) What is left factoring ? Write the algorithm for left factoring a grammar. 1+3=4

- (b) Is the following grammar ambiguous ? 3

$$E \rightarrow E + T \mid T$$

$$T \rightarrow T * F \mid F$$

$$F \rightarrow (E) \mid id$$

- (c) Using above grammar construct left most derivation, right most derivation and draw the parse tree for the input  $(id * id) + id$ . 2+2+1=5

4. (a) Differentiate Top-Down parsing and Bottom-Up parsing. 3

- (b) Write the algorithm to construct SLR parsing table. 8

**Or**

Write the algorithm to construct canonical LR parsing table.

- (c) Consider the following grammar 10

$$E \rightarrow E + T \mid T$$

$$T \rightarrow TF \mid F$$

$$F \rightarrow F * a \mid b$$

Construct the LALR parsing table.

5. (a) What is three address code ? What are different types of three address statements ? 2+3=5