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Answer Sheet No: _____

Signature of Candidate: _____

Signature of Invigilator: _____

Federal Board SSC-II Examination
Computer Science Model Question Paper
(Curriculum 2009 – NBF)

SECTION – A

Time allowed: 20 minutes

Marks: 12

Note: Section-A is compulsory and comprises two pages. All parts of this section are to be answered on the question paper itself. It should be completed in the first 20 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q.1 Encircle the correct option i.e. A / B / C / D. All parts carry equal marks.

- (i) Which of the following structures allows a choice among various options?
A. Sequence B. Selection
C. Loop D. Decision
- (ii) Which program translates high level language into machine language?
A. Compiler B. Linker
C. Loader D. Debugger
- (iii) How many bytes are set aside by the compiler for a variable of type 'int'?
A. 2 B. 3
C. 4 D. 5
- (iv) Which statement is equivalent to "k = k + a;" ?
A. k+=a; B. k=+a;
C. k++a; D. k=a++;
- (v) Which format specifier is used to print or read a floating-point value in decimal notation?
A. %d B. %g
C. %f D. %e
- (vi) Which of the selection structures tests only for equality?
A. if statement B. if-else statement
C. switch statement D. if-else-if statement
- (vii) Which loop should be used when it is required to execute the loop at least once?
A. for loop B. do while loop
C. while loop D. nested loop
- (viii) Which of the following gates is also known as inverter?
A. OR gate B. NOR gate
C. NAND gate D. NOT gate

DO NOT WRITE ANYTHING HERE

- (ix) Which logic gate is represented by the function $= (\overline{xy})$
- A. NAND B. NOR
C. Exclusive-OR D. Exclusive-NOR
- (x) What is the maximum number of possible input combinations in a truth table that has three variables?
- A. 3 B. 6
C. 8 D. 9
- (xi) Which of the following refers to uploading of Web pages to Web server so that others can access it?
- A. Web surfing B. Web hosting
C. Installing website D. Configuring Web pages
- (xii) Which language is used for creating Web pages?
- A. HTML B. C language
C. URL D. Web browser

For Examiner's use only

Q. No.1: Total Marks:

Marks Obtained:



Federal Board SSC-II Examination
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Time allowed: 2.40 hours

Total Marks: 43

Note: Sections 'B' and 'C' comprise two pages and questions therein are to be answered on the separately provided Answer Book. Use supplementary answer sheet i.e., sheet B if required. Write your answers neatly and legibly.

SECTION – B (Marks 27)

Q.2 Attempt any **NINE** parts from the following. All parts carry equal marks. (9 × 3 = 27)

- i. Write down an algorithm to find factorial of a given number.
- ii. Draw a flowchart to print multiplication table of a given number in reverse order.
- iii. Write three differences between assembly language and HLLs.
- iv. Evaluate the following expressions:
a. $7+5*(3+4)$ b. $100/10/4$ c. $30/7*3-6$
- v. Differentiate between getch() and getche() functions.
- vi. Find errors in the following code:

```
intk,a
a=3;
k=1;
while(k<10);
[
    printf("\n%f\t%f",k,k*a-1);
    k=k+2;
]
```
- vii. Write the following statement using conditional operator.
If (x>y)
 z = (x+y)/3;
else
 z = x-5*y;
- viii. Write a program that reads three numbers and prints their sum, product and average.
- ix. What will be the output of the following code?

```
int k;
for(k = 30 ; n >= 10 ; n = n-5)
    printf ("\n%d" , n);
```
- x. Construct Truth Table for the following Boolean Expression:
 $F = \overline{x}yz + \overline{xy}z + x\overline{y}$
- xi. Convert the following for loop into a while loop.

```
int k;
for(k=25; k>0; k=k-3)
    printf("\n%d",k);
```
- xii. How is a search engine used for searching information on the internet?

- xiii. Write the HTML tags for the following?
- | | |
|--------------|--------------|
| a. Paragraph | b. Heading |
| c. Bold | d. Underline |
| e. Italic | f. Font Size |

SECTION – C (Marks 16)

Note: Attempt any **TWO** questions. (8 × 2 = 16)

Q.3 Simplify the Boolean Function F, using Karnaugh Mapping (K-map).

$$F = xyz + x\bar{y}z + x\bar{y}\bar{z} + x\bar{y}z + \bar{x}yz + \bar{x}y\bar{z}$$

Also, construct logic circuit for the simplified expression. (4+4)

Q.4 Write a program in C language that reads temperature (**t**) in Celsius and prints a message as given below: (8)

Temperature	Message to print
$t > 35$	It is hot!
$t \geq 20, t \leq 35$	Nice day!
$t < 20$	It is cold!

Q.5 Describe the tags used for creating a table in HTML. (8)