

Version No.			

ROLL NUMBER						



0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

Answer Sheet No. _____

Sign. of Candidate _____

Sign. of Invigilator _____

COMPUTER SCIENCE SSC–II

SECTION – A (Marks 12)

Time allowed: 15 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. **Do not use lead pencil.**

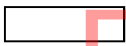
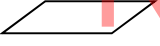
Q.1 Fill the relevant bubble for each part. Each part carries one mark.

- (1) What is the output of following code?

```
int a = 15;
float s = 5.50;
printf ("%f", a/s);
```

- A. 2 ☐ B. 2.72 ☐
C. 3 ☐ D. 5 ☐

- (2) Which one of the following symbols is used in flow chart for the statement “Marks<33”?

- A.  ☐ B.  ☐
C.  ☐ D.  ☐

- (3) Which one of the following functions is used to read string “Computer Science”?

- A. scanf() ☐ B. gets() ☐
C. getchar() ☐ D. getch() ☐

- (4) Which statement is equivalent to “j = j + a;” ?

- A. j+=a; ☐ B. j-=a; ☐
C. j++a; ☐ D. j=a++; ☐

- (5) Which escape sequence can be used to insert a Tab in “C” Language?

- A. \a ☐ B. \b ☐
C. \t ☐ D. \n ☐

- (6) Which one of the following is the most suitable for making two ways decision?

- A. if statement ☐ B. if-else statement ☐
C. switch statement ☐ D. Nested-if statement ☐

- (7) How many times “FBISE” will be displayed by the following code?

```
for (int i=1; i<10; i+=2)
    printf (“FBISE”);
```

A. 1 ☐ B. 5 ☐
C. Infinite ☐ D. The loop will not run. ☐
- (8) What is the output of the following code?

```
int i ;
for(i=1;i<=2;i++)
printf (“\n i=%d”, i);
```

A. i=2 ☐
i=3
B. i=1 ☐
i=2
C. i=1 ☐
i=3
D. i=2 ☐
i=1
- (9) Which one of the following gates has an output = A.B?
A. NAND ☐ B. NOR ☐
C. OR ☐ D. AND ☐
- (10) When the input to an inverter is LOW(0) the output will be:
A. HIGH or 0 ☐ B. LOW or 0 ☐
C. HIGH or 1 ☐ D. LOW or 1 ☐
- (11) What is the output of following HTML code?

```
<ol>
<li> Magnetic Disk </li>
<li> CD and DVD </li>
</ol>
```

A. • Magnetic Disk ☐ B. 1. Magnetic Disk ☐
• CD and DVD 2. CD and DVD
C. 1. Magnetic Disk ☐ D. Magnetic Disk ☐
o CD and DVD CD and DVD
- (12) Which one of the following is correct HTML statements to divide browser window into 3 columns?
A. <fram col = 30%, 30%, 40%> ☐
B. <framset col = 30%, 30%, 40%> ☐
C. <framset col 30%, 30%, 40%> ☐
D. <fram row = 30%, 30%, 40%> ☐
-



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

Time allowed: 2.45 hours

Total Marks: 43

Note: Answer any nine parts from Section 'B' and attempt any two questions from Section 'C' on the separately provided answer book. 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. Define algorithm. What is the role of algorithm in problem solving?
- ii. Point out valid and invalid variable names.
 - a. define
 - b. 5name
 - c. a5
 - d. US\$
 - e. a_b
 - f. f name
- iii. Write down any three characteristics of High Level Language.
- iv. Evaluate each of the following expression assuming, a = 2, z = 1.3, c = 1 and d = 3:
 - a. $b = d/a + d \% a$;
 - b. $x = (a + c)/(z + 0.3)$;
 - c. $y = c / d * a$;
- v. Write down the names and purpose of any three format specifiers.
- vi. Define the following.
 - i. Control Statement
 - ii. Conditional Statement
- vii. Compare an assignment operator (=) and an equal to (==) operator by giving an example.
- viii. Write a program using while loop to print odd numbers from 1 to 20.
- ix. What will be the output of the following code?

```
void main( )
{
    int u, i;
    for (u = 1; u <= 5; u++)
    {
        for (i = 1; i <= u; i++)
        {
            printf("%d \t", i);
        }
        printf("\n");
    }
}
```

- x. Construct Truth Table for the following Boolean Expression:

$$F = \overline{x}yz + \overline{x}yz + x\overline{y}$$

- xi. Convert the following code into for loop:

```
int sum = 0, num = 0;
do
{
    sum = sum + num;
    printf ("Enter an integer value");
    scanf ("%d", &num);
}
while (num >= 0 && num <= 15);
```

- xii. Write down the three benefits of web portal.
- xiii. Use appropriate text formatting tags to define the following. Write one example of each.
- a. font size b. font colour c. font face

SECTION – C (Marks 16)

Note: Attempt any **TWO** questions.

(8 × 2 = 16)

- Q.3 i. Draw a flowchart to calculate the exponent of a given number. (4)
 ii. Explain any four modules of C programming environment. (4)

- Q.4 Simplify the Boolean Function F , using Karnaugh Mapping (K-map).

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

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

- Q.5 i. Rewrite the following code after removing the errors: (4)

```
# include < std.h>
# include < conio.h>
void main ( );
{
    int p, s;
    printf("\n Enter a number:);
    scanf("%d", p);
    s=p%2;
    if(s=0)
    printf("even number%d", p)
    els
    printf("odd number%d", p);
    getch( );
```

- ii. Convert the following program using switch statement: (4)

```
void main( )
{
    char ch; clrscr( );
    printf("Enter a single character");
    scanf("%c", &ch);
    if ( ch == 'a' || ch == 'A' ||
        ch == 'e' || ch == 'E' ||
        ch == 'i' || ch == 'I' ||
        ch == 'o' || ch == 'O' ||
        ch == 'u' || ch == 'U')
        printf("It is a vowel");
    else    printf("It is a consonant");    }
```

* * * * *

COMPUTER SCIENCE SSC-II

(Curriculum 2009)

Student Learning Outcomes

Sr No	Section: Q. No. (Part no.)	Contents and Scope	Student Learning Outcomes *	Cognitive Level **	Allocated Marks in Model Paper
1	A: 1(i)	3.1 Input / Output functions	iii) Use output functions like: • printf ()	U	1
2	A:1(ii)	1.3 Flow Chart	iv) Use of flow chart symbols	U	1
3	A: 1(iii)	3.1 Input / Output functions	ii) Use input functions like: • scanf () • getch (), getche (), getchar () • gets ()	U	1
4	A: 1(iv)	3.2 Operators	iii) Use the following assignment operators: • Compound assignment operator (+ =, -, =, * =, / =, % =)	U	1
5	A: 1(v)	3.1 Input / Output functions	vi) Explain the use of the following escape sequences using programming examples: • Alert - \a • Backspace - \b • Newline - \n • Carriage Return - \r • Tab - \t	K	1
6	A: 1(vi)	4.1 Control Structure	vi) Use if-else statement	K	1
7	A: 1(vii)	5.1 Loop Structure	ii) Know that for loop structure is composed of: • For • Initialization expression • Test expression • Body of the loop • Increment / decrement expression	A	1
8	A: 1(viii)	5.1 Loop Structure	ii) Know that for loop structure is composed of: • For • Initialization expression • Test expression • Body of the loop • Increment / decrement expression	U	1
9	A: 1(ix)	6.2 Logic Gates	iv) Explain the following logic gates with the help of truth tables: • AND • OR • NAND • NOR • NOT	U	1
10	A: 1(x)	6.2 Logic Gates	iv) Explain the following logic gates with the help of truth tables: NOT	K	1
11	A: 1(xi)	7.4 Creating Lists	ii) Create: • Unordered list • Ordered list	U	1
12	A: 1(xii)	7.8 Creating Frames	iii) Create a frameset	U	1

13	B: 2(i)	1.2 Algorithm	i) Define an algorithm ii) Explain role of algorithm in problem solving	K	3
14	B: 2(ii)	2.4 Constants and Variables	ii) Explain the rules for specifying variable names	U	3
15	B: 2(iii)	2.1 Introduction	iii) Elaborate characteristics of High Level Language	K	3
16	B: 2(iv)	3.2 Operators	xi) Define and explain the order of precedence of operators	A	3
17	B: 2(v)	3.1 Input / Output functions	iv) Define Format specifiers • decimal - %d • integer - %i • float - %f • double - %g,e • char - %c • long int - %ld	K	3
18	B: 2(vi)	4.1 Control Structure	i) Define a control statement. ii) Define a conditional statement	K	3
19	B: 2(vii)	3.2 Operators	viii) Differentiate between assignment (=) and equal to operator (==)	U	3
20	B: 2(viii)	5.1 Loop Structure	viii) Write codes for flowcharts discussed in unit-1 To find a sequence of odd numbers starting from a given number 1.2 (iv)	A	3
21	B: 2(ix)	5.1 Loop Structure	ii) Know that for loop structure is composed of: • For • Initialization expression • Test expression • Body of the loop • Increment / decrement expression	U	3
22	B: 2(x)	6.2 Logic Gates	iv) Explain the following logic gates with the help of truth tables: • AND • OR • NAND • NOR • NOT • Exclusive NOR (XNOR) • Exclusive OR (XOR)	U	3
23	B: 2(xi)	5.1 Loop Structure	ii) Know that for loop structure is composed of: • For • Initialization expression • Test expression • Body of the loop • Increment / decrement expression iv) Know that do while loop structure is composed of: • Do • Body of the loop • While • Test expression • Statement terminator	U	3
24	B: 2(xii)	7.1 Introduction	• ii) Explain the following types of websites • Portal	U	3
25	B: 2(xiii)	7. 3 Text Formatting	Use appropriate text formatting tags to define: • Font size • Font colour • Font face	K	2+1

26	C: 3	1.3 Flow Chart 2.2 Programming Environment	(v) Draw flow charts of algorithms discussed earlier in unit-1 (1.2 (iv)) ii) Explain the following modules of the C programming environment • Editor • Compiler • Linker • Loader • Debugger	A+K	4+4
27	C: 4	6.3 Simplification using K Maps	• iii) Simplify three variable Boolean function/expression • iv) Build logic circuits from the simplified expressions	U+A	4+4
28	C: 5	4.1 Control Structure	vi) Use if else statement vii) Know that the switch statement is composed of: • Switch • Case • Default • Break	U	8

*** Student Learning Outcomes**

National Curriculum for Computer Sciences Grades IX-XII, 2009

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****Cognitive Level**

K: Knowledge

U: Understanding

A: Application

Result.pk

COMPUTER SCIENCE SSC-II

Table of Specifications

Assessment Objectives		Unit 1: Programmi ng Technique s 10%	Unit 2: Program ming in C 10%	Unit 3: Input / Output Handling 15%	Unit 4: Control Structur e 15%	Unit 5: Loop Structure 15%	Unit 6: Computer Logic and Gates 15%	Unit 7: World Wide Web and HTML(Major part cover in Practical) 20%	Mark s	Total marks (55 Theory + 25 Practical)	% Cover ed 100%
Knowledge based	Section - A			1(5)(01)	1(6)(01)		1(10)(01)		03	22	29.3%
	Section - B	2(i)(03)	2(iii)(03)	2(v)(03)	2(vi)(03)			2(xiii)(03)	15		
	Section - C		3-(04)						04		
Understanding based	Section - A	1(2)(01)		1(1)(01) 1(3)(01) 1(4)(01)		1(8)(01)	1(9)(01)	1(11)(01) 1(12)(01)	08	38	50.7%
	Section - B		2(ii)(03)	2(vii)(03)		2(ix)(03) 2(xi)(03)	2(x)(03)	2(xii)(03)	18		
	Section - C				5-(08)		4-(04)		12		
Application based	Section - A					1(7)(01)			01	15	20%
	Section - B			2(iv)(03)		2(viii)(03)			06		
	Section - C	3-(04)					4-(04)		08		
Total marks		08	10	13	12	11	13	8	75		100 %

* Unit 7: Major content will examine in Practical paper. 10% covered in Theory paper and remaining will cover in Practical paper.
Hence weightage distributed to other units.

KEY:
1(1)(01)
Question No (Part No.) (Allocated Marks)