Enrollment No: _____ Exam Seat No:_____

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name: Programming in C

Subject Code: 2TE03PIC1 Branch: Diploma(CE)

Semester: 3 Date: 01/12/2015 Time: 2:30 To 5:30 Marks: 70

Instructions:

(1) Use of Programmable calculator & any other electronic instrument is prohibited.
(2) Instructions written on main answer book are strictly to be obeyed.
(3) Draw neat diagrams and figures (if necessary) at right places.
(4) Assume suitable data if needed.

Q-1 Attempt the following questions: (14)

1. What is the size of an integer variable in c?
a) 1 BYTE b) 2 BYTE c) 3 BYTE d) 4 BYTE

2. Which of the following is not a math function?
a) ceil() b) floor() c) strlen() d) pow()

3. Which among the following is a turnery operator?
a) > = b) < = c) ? : d) ! =

4. Who invented C language?
a) James A Gosling b) Dennis Ritchie c) E.F.Codd d) Charles Babage

5. Standard ANSI C has _____ number of keywords?
a) 30 b) 32 c) 24 d) 28

6. Which of the following is not a valid variable in C?
a) var b) var1 c) 123 d) var_1

7. Can we use switch statement to switch on strings?
a) YES b) NO

8. Collection of variables of same data type is known as _____.
a) Array b) Pointer c) Structure d) String

9. What is the right way to initialize array?
a) int num[6] = {1,2,3,4,5,6} b) int num{} = [1,2,3,4,5,6]
c) int num(6) = {1,2,3,4,5,6} d) int num{6} = {1,2,3,4,5,6}

10. Which among the following is not arithmetic operator?
a) + b) % c) * d) &&

11. _____ is a block of statements which when executed performs specific task.
a) Function b) Array c) String d) Union

12. Every C program must contain a main() function.
a) TRUE b) FALSE

13. A function calling itself is known as _____.

a) Nested Function b) Recursion c) loop d) Array.

14. What will be the output of following code?

```
main()
{
        static int var = 5;
        printf(" %d ", var--);
        if(var)
           main();
}
```

a) 5 5 5 5 5 b) 1 2 3 4 5 c) 5 4 3 2 1 d) 1 1 1 1 1

Attempt any four questions from Q-2 to Q-8

Q-2 **Attempt all questions**

a) Explain basic structure of 'C' program. **(07)**

b) Explain different data types of 'C' language. **(07)**

Q-3 **Attempt all questions**

a) Explain Nested If statement with example. **(07)**

b) Explain do while loop with example. **(07)**

Q-4 **Attempt all questions**

a) What is Operator? Explain Arithmetic and logical operators with example. **(07)**

b) What is Array? Explain one dimensional array with example. **(07)**

Q-5 **Attempt all questions**

a) What is function? Explain call by value and call by reference with example. **(07)**

b) What is string? Explain string library functions. **(07)**

Q-6 **Attempt all questions**

a) What is pointer? Explain array of pointers with example. **(07)**

b) What is structure? Explain declaration and initialization of structure with example. **(07)**

Q-7 **Attempt all questions** **(07)**

a) What is Recursion? Write a program to find factorial of given number using recursion. **(07)**

b) What is file? Explain fopen() , fseek() , fwrite() , feof() functions.

Q-8 **Attempt all questions**

a) Write a program to check if the entered number is even or odd. **(05)**

b) Write a program to draw following pattern. **(05)**

1

1 2
1 2 3
1 2 3 4

c) Write rules for defining variable. **(04)**

pÄ/É. **nIcena p/Äo na jvab Aapo.** **(ÉÌ)**

É. C ma> Integer variable nI sa[z ke3lI 0e?
b) 1 BYTE b) 2 BYTE c) 3 BYTE d) 4 BYTE

Ê. nIce Aapelama>4I Kyu function Math function n4I?
b) ceil() b) floor() c) strlen() d) pow()

Ë. nIce Aapelama>4I kyo turnery operator 0e?
b) > = b) < = c) ? : d) ! =

Ì. C language ko`e xo6I?
b) James A Gosling b) Dennis Ritchie c) E.F.Codd d) Charles Babage

Í. Standard ANSI C ma> kul _____ keywords 0e?
b) 30 b) 32 c) 24 d) 28

Î. C ma> nIce Aapelama>4I kyo verIAebl velID n4I?
b) var b) var1 c) 123 d) var_1

Ï. Switch S3e3meN3 strings joDe vaprI xkay?
b) YES b) NO

Ð. srqa De3a 3a{p vaDa verIAebl na smuhne _____ khevama> Aave 0e.
b) Array b) Pointer c) Structure d) String

Ñ. nIce Aapelama>4I Array Initialize krvama3e nI sacI rIt k[0e?
b) int num[6] = {1,2,3,4,5,6} b) int num{} = [1,2,3,4,5,6]
c) int num(6) = {1,2,3,4,5,6} d) int num{6} = {1,2,3,4,5,6}

ÉÈ. nIce Aapelama>4I Kyo arithmetic operator n4I?
b) + b) % c) * d) &&

ÉÉ. _____ Ae S3e3m3N3 no Blok 0e jene jyare rn krvama> Aave 0e Tyare SpesIfIk 3aSk prFoRm kre 0e,
b) Function b) Array c) String d) Union

ÉÊ. drek C program ne main() function hovu j =e[Ae.
b) TRUE b) FALSE

ÉË. Function ke je qudne kol kre teva Function ne _____ khevama> Aave 0e.
b) Nested Function b) Recursion c) loop d) Array.

ÉÌ. nIce Aapela p/og/am nu Aa]3pu3 lqo?

```
main()
{
        static int var = 5;
        printf(" %d ", var--);
        if(var)
           main();
}
```

b) 5 5 5 5 5 b) 1 2 3 4 5 c) 5 4 3 2 1 d) 1 1 1 1 1

nIcena ma>4I ko[p` Ì p/Äo na jvab Aapo.

pÄ/ Ê. **nIcena p/Äo na jvab Aapo.**

AÝ ‘C’ program nu bezIk ma5qu sm=vo. **(Ï)**

bÝ ‘C’ language na De3a 3a[p vIStar4I sm=vo. **(Ï)**

pÄ/ Ë. **nIcena p/Äo na jvab Aapo.**

AÝ Nested If S3e3meN3]dahr` sa4e sm=vo. **(Ï)**

bÝ do while loop]dahr` sa4e sm=vo. **(Ï)**

pÄ/ Ì. **nIcena p/Äo na jvab Aapo.**

AÝ Operator xu 0e? Aer4me3Ik t4a lo+kl operators]dahr` sa4e sm=vo. **(Ï)**

bÝ Array xu 0e? One dimensional array]dahr` sa4e sm=vo. **(Ï)**

pÄ/Í. **nIcena p/Äo na jvab Aapo.**

AÝ Function xu 0e? Call by value Ane Call by reference]dahr` sa4e sm=vo. **(Ï)**

bÝ String xu 0e? String f>kxn sm=vo **(Ï)**

pÄ/ Î. **nIcena p/Äo na jvab Aapo.**

AÝ Pointer xu 0e? Array of pointers]dahr` sa4e sm=vo. **(Ï)**

bÝ Structure xu 0e? Structure DIklerexn t4a [nIsIylayzexn]dahr` sa4e sm=vo. **(Ï)**

pÄ/ Ï. **nIcena p/Äo na jvab Aapo.** **(Ï)**

AÝ Recursion xu 0e? Recursion nI mdd4I Aapel n>br no feK3orIyl xo6va ma3eno p/og/am lqo. **(Ï)**

bÝ File xu 0e? fopen() , fseek() , fwrite() , feof() FNkxn sm=vo.

pÄ/ Ð. **nIcena p/Äo na jvab Aapo.**

AÝ Aapel n>br AekI 0e ke bekI te xo6va ma3eno p/og/am lqo. **(Í)**

bÝ nIce Aapel pe3Rn bnavva ma3eno p/og/am lqo. **(Í)**

1
1 2
1 2 3
1 2 3 4

k) Variable DIfa[n krvama3e na nIymo lqo. **(Ì)**