COURSE: COMPUTER FUNDAMENTALS AND PC SOFTWARE
(PGDCA -01)

Total Marks: 50

[Assignments *are required to be written in your own language. Copying in toto from the learning materials will carry less score*]

A. Answer the following three questions: **2 X 3 = 6**

Q1. Convert **(10001.111)$_2$** into its decimal, octal and hexadecimal equivalent.

Q2. Subtract 45 from 90 using 1's and 2's complement.

Q3. Define cache memory? What are the functions of operating system?

B. Answer the following four questions: **4 X 3 = 12**

Q1. What is the function of the given LINUX commands – **date, chgrp, wc, grep**

Q2. What is the function of the given DOS commands– **type, comp, copy, format**

Q3. Describe the different generation of computers.

C. Answer the following questions: **6 X 2 = 12**

Q1. What are the different types of software piracy?

Q2. Describe how the following functions can be used in Excel document:

   IF, SQRT, AVERAGE, LOWER, DATE, ABS

D. Answer the following questions: **10 X 2 = 20**

Q1. Give the steps to create a table of 4 rows and 5 columns. How can two or more rows be merged in this table? Also give the steps to insert a new column in this table.

Q2. Describe the different deception techniques used by malicious software.

*****

COURSE: DIGITAL TECHNIQUES
(PGDCA -02)

Total Marks: 50

[Assignments *are required to be written in your own language. Copying in toto from the learning materials will carry less score*]

A. Answer the following three questions: **2 X 3 = 6**

Q1. State De Morgan's Theorem. What is Duality principle?

Q2. Where can Gray codes be used?

Q3. How is EEPROM different than EPROM?

B. Answer the following three questions: **4 X 3 = 12**

Q1. Explain fixed point representation of numbers using an example.

Q2. Simplify the following Boolean functions in SOP form.

F (a, b, c, d) = (7, 13, 14, 15)

Q3. Convert the decimal number (0.25) to a 32 bits single precision floating point binary number.

C. Answer the following two questions: **6 X 2 = 12**

Q1. Describe the working of SISO register.

Q2. Explain the operation of 3 input AND/OR gate and realize it using NAND/NOR gates.

D. Answer the following questions: **10 X 2 = 20**

Q1. Draw and explain the working of a 4-bit parallel adder.

Q2. Describe the working of JK Flip Flop.

*****

COURSE: COMPUTER PROGRAMMING USING C

(PGDCA -03)

Total Marks: 50

[*Assignments are required to be written in your own language. Copying in toto from the learning materials will carry less score*]

A. Answer the following questions: **2 X 3 = 6**

Q1. What are preprocessor directives? Give an example.

Q2. Define external variable? Give the difference between register and automatic storage class variable.

Q3. Use the conditional operator to find the greatest of 3 numbers.

B. Answer the following questions: **4 X 3 = 12**

Q1. Draw a flowchart to find the sum of digits in a four digit number.

Q2. Give the difference between break and continue statement using examples.

Q3. Write a C program to show type conversion.

C. Answer the following questions: **6 X 2 = 12**

Q1. Write a function in C input a string and count the number of vowels.

Q2. Write a C program to read and write a text file.

D. Answer the following questions: **10 X 2 = 20**

Q1. Describe the different categories of function using examples.

Q2. Write a C program to accept the names and marks of 10 students in 3 subjects. Print in ascending order the rank list based on the average of the three subjects. Also print the name of the first ranker and his percentage.

*** ***** **

COURSE: FUNDAMENTALS OF NETWORKING & INTERNET
(PGDCA -04)
Total Marks: 50

[*Assignments are required to be written in your own language. Copying in toto from the learning materials will carry less score*]

A. Answer the following three questions: **2 X 3 = 6**

Q1. Write the HTML code to create a table of 3 rows and 5 columns.

Q2. Give the difference between dial up and ADSL connection.

Q3. What is the difference between serial and parallel transmission?

B. Answer the following three questions: **4 X 3 = 12**

Q1. Describe the working of a coaxial cable.

Q2. Describe bus topology. List two advantage of bus topology over other topologies.

Q3. What are the different modes of communication?

C. Answer the following two questions: **6 X 2 = 12**

Q1. Describe the different layers in ISO-OSI reference model.

Q2. Describe the different parts in an XML document.

D. Answer the following two questions: **10 X 2 = 20**

Q1. Write the HTML code to create a form for student admission.

Q2. Write a function in Java Script to find the factorial of a number.

*** ***** **

Assignment Guidelines

A. <u>Guidelines to Co-ordinators</u>:

1.   Assignments are parts of teaching-learning process and compulsory.

2.   The spirit behind this is to help learners to understand the subject and prepare themselves better for the term-end examination.

3.   Assignment responses are to be evaluated and feedbacks are required to be communicated to the learners, by giving back the assignments with evaluator's comments. Such assignments are to be collected at the time of issuing admit cards and be stored in the centre's office till the end of next semester.

4.   Assignment marks are to be sent to the Controller of Examinations as soon as the examination routines are published.

5.   Keeping the above points in mind Co-ordinators will fix the time/date of submission of assignments by the learners as may be convenient to follow the guidelines in true spirits.

B. <u>Guidelines to learners:</u>

1.   As soon as the SLMs are received the learners will write the assignments in their own handwriting (assignment questions may be downloaded from the website, if necessary) to be submitted to Co-ordinators as per the dates fixed for the purpose. Timely submission of assignments at the Study Centres will help in quick processing of results of respective learners. Otherwise this will create unnecessary delay in declaration of results.

2.   Writing of assignment (work) and submission of the same in time is compulsory.

                                                                                                Registrar

N.B. The learners will have to collect receipt after submitting the assignment with the signature and seal of the collector of study centre and will have to keep with him/her till the declaration of result.
✂   ……....................………………………………………………………………………………………

                                          Receipt

Received the assignment from Mr/Ms ……………………………………….Enrollment number
………………………of **1ˢᵗ Semester PGDCA** on ………………2019.

Date: Signature of collector with seal

                                     ::: ::::: :::