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Roll No.

W-5001

**P. G. Diploma in Computer Application
(First Semester) EXAMINATION, Jan., 2013**

INTRODUCTION TO SOFTWARE ORGANIZATION

(PGDCA-101)

Time : Three Hours]

[Maximum Marks : 100

Note : Question No. 1 is compulsory. Attempt any *four* questions from remaining. All questions carry equal marks.

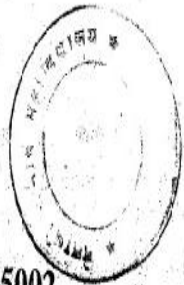
1. Find out the appropriate answer :
 - (i) Which of the following terms applies to communicate between separate computer systems ?
 - (a) Computer Literacy
 - (b) Power supply
 - (c) Connectivity
 - (d) Applications of software
 - (e) None of the above
 - (ii) Which of the following terms is related to a monitor ?
 - (a) Screen
 - (b) Monochrome monitor

- (c) RGB monitor
 - (d) Video display
 - (e) All of the above
- (iii) Which kind of storage device can be carried around ?
- (a) Hard disk
 - (b) System cabinet
 - (c) Main memory
 - (d) Pen drive
 - (e) Mother board
- (iv) People typically interface with a computer-based system when :
- (a) Information must be output
 - (b) Data must be input
 - (c) Information must be reviewed
 - (d) The computer needs a direction (or instruction) in order to process data
 - (e) All of the above
- (v) Which of the following best describes a computer-based information system ?
- (a) System in which a computer is used to turn data into information
 - (b) Inputting data
 - (c) Processing data
 - (d) Performing complex mathematical calculations
 - (e) Data is put into the computer for processing
- (vi) Linkage between CPU and the users is provided by :
- (a) Peripheral devices

- (b) Storage
 - (c) Control unit
 - (d) Software
 - (e) All of the above
- (vi) A disadvantage of Laser printer is :
- (a) It is quieter than an impact printer
 - (b) It is very slow
 - (c) The output is of a lower quality
 - (d) It cannot produce a wide range of type fonts
 - (e) None of the above
- (vii) Which of the following is true of the digital computer ?
- (a) It represents the decimal numbers through a string of binary digits
 - (b) It is used primarily in scientific applications
 - (c) It is less accurate than the analog computer
 - (d) All of the above
 - (e) None of these
- (ix) Which of the following is not true of primary storage ?
- (a) It represents the decimal numbers through a string of binary digits
 - (b) It stores operating-system program
 - (c) It stores data which they are being processed by the CPU
 - (d) It stores the bulk of data used by a computer applications
 - (e) All of the above are true
- (x) What is the Control Unit function in the CPU ?
- (a) Decode program instructions

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- (b) To transfer data to primary storage
 - (c) To perform logical operations
 - (d) To store program instructions
 - (e) None of the above
2. (a) Write down the minimum configuration of a PC for installation of Windows 7 OS.
- (b) List out the strength and limitations of a Computer.
3. (a) Draw the diagram of CPU with explanation of each Unit.
- (b) "Storage is one of most important part of ICT". Justify.
4. (a) What are the different programming paradigms ?
- (b) What are the functions of OS ?
5. (a) What do you understand by Topology ? Explain.
- (b) Write about Internet and its utilities.
6. (a) Write down the features of Multi-user-multi-tasking operating system.
- (b) Write any *five* Linux commands with their syntax.
7. Write short notes on any *five* of the following :
- (i) Open Source Software
 - (ii) ISP
 - (iii) Router
 - (iv) Booting
 - (v) Development of Processor
 - (vi) Linker & Loader
 - (vii) SIMM & DIMM



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P. G. Diploma in Computer Application
(First Semester) EXAMINATION, Jan., 2013

PROGRAMMING IN 'C' AND 'C++'

(PGDCA-102)

Time : Three Hours]

[Maximum Marks : 100

Note : Answer any two parts from each question. All questions carry equal marks. Assume your own data whenever needed.

1. (a) What are the utilities of relational operator ? Explain with example using relational operator in an "if" statement.
- (b) Write a program in "C" language that calculate simple and compound interest.
- (c) Explain the terms "Operator" and "Expression" with the help of example.
2. (a) Differentiate between 'While' and "Do... while" statement and write a program in "C" language to check for a palindrome using "do... while" statement.
- (b) What are the utilities of "Switch" statement ? Write a program that demonstrate the use of "Switch" statement.

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- (c) What are the advantages of using "Function" in "C" language and explain in brief the concept associated with "function".
3. (a) Write various advantages of 'Array' in "C" language and write a program that demonstrate multiplication of two matrices.
- (b) Explain the difference between an array and a pointer with the help of example.
- (c) Write the various uses of "pointer".
4. (a) Differentiate between "Structure" and "Union", explain which one is better and why ? (7)
- (b) Explain "Array of structure" in "C" language. Also write a program that demonstrate initializing array of structure.
- (c) What are the utilities of Dynamic Memory Allocation ? Explain various library functions available for dynamic memory allocation.
5. (a) What do you mean by Object Oriented Programming ? Discuss main features of "C++".
- (b) Differentiate between "Class" and "Object" having an example in "C++".
- (c) List and explain the uses of INLINE function and FRIEND function in C++.

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**P. G. Diploma in Computer Application
(First Semester) EXAMINATION, Jan, 2013**

DBMS (SQL/ORACLE)

(PGDCA-103)

Time : Three Hours]

[Maximum Marks : 100

Note : Question No. 1 is compulsory. Answer any *four* from the remaining. Each question carries equal marks.

1. (a) What is DBMS ? What are the different components of DBMS ?
(b) Differentiate between strong entity set and weak entity set with example.
(c) Shortly define database language. Also explain its different types.
(d) Explain data abstraction with its types.
(e) What is mapping constraints ? Explain the types of mapping constraint with suitable example.
2. What are the advantages of DBMS over traditional file processing system ?
3. What are the data models ? Explain different types of database models.
4. Explain overall architecture of DBMS.

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5. Explain pitfalls in relational database design. Differentiate between 3NF and BCNF.
6. What is Join ? Also explain its types with suitable examples.
7. Write short notes on any *four* of the following :
 - (i) Functional dependencies
 - (ii) E-R model
 - (iii) Relational algebra
 - (iv) Normalization
 - (v) Domain Relational calculus
 - (vi) SQL-sub queries
 - (vii) Differentiate between DBMS and RDBMS



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