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SUBJECT CODE NO:- L-2041
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y. (Sem-I) Examination Oct/Nov 2018
Computer Science Paper-II CS02
Digital Electronics

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B
1. Attempt all questions
2. Illustrate your answer with suitable labeled diagram.

Q.1 a) Explain AND , OR & NOT gates with suitable diagram . 10
b) Explain K-map for 2 variables. 10

OR

c) What is half adder? Explain it 10
d) What is flip-flops? Explain RS flip- flop. 10

Q.2 a) What is counter? Explain Ring counter. 10
b) What is Buffer register? Explain 10

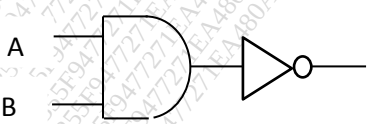
OR

c) Write short notes on any four of the following . Each carry 5 marks 20
i) Binary Number system
ii) NAND as Universal building block
iii) Full subtractor
iv) Master slave flip- flop
v) Serial – in serial out shift Register
vi) Multiplexer

Q.3 Multiple choice questions 10

1) $(1100)_2$ = (----------)$_{10}$
a) 12 b) 13 c) 14 d) None of the above

2) Laws of complements is ---------
a) A + A= A b) A+1= 1 c) A.$\bar{A}$=0 d) none of the above

3) 

If A=1 & B=1 then Y= ---------

a) 1 b) o c) both a & b d) None of the above

4) $(15)_{10}$= (--------)$_2$
   a) 1101 b) 1110 c) 1111 d) None of the above

5) $(1011)_2 + (0011)_2 = (-----)_2$
   a) 0010 b) 1110 c) 1111 d) none of the above

6) 2'S complement of $(1101)_2$ = (----)$_2$
   a) 0011 b) 1010 c) 1000 d) none of the above

7) Laws of commutative is --------
   a) $\bar{\bar{A}}$=A b) A.B = B. A c) A+ B = B+A d) Both a & c

8) $(BA)_{16}$ = (------)$_2$
   a) 10101010 b) 10111010 c) 11110111 d) None of the above

9) $(101\ 110)_2$ = (-------)$_8$
   a) 26 b) 52 c) 56 d) None of the above

10) Which is logical symbol of Ex-oR gate

a) 

b) 

c)Both a & b d) None of the above

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SUBJECT CODE NO:- L-2040
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y. (Sem-I) Examination Oct/Nov 2018
Computer Science Paper-I CS01
Computer Fundamentals

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B
1. All questions are compulsory.
2. Illustrate your answer with suitable labeled diagram

Q.1 a) Explain H.L.L and L.L.L 10
b) Describe various components of computers. 10

OR

a) What is algo? Explain with suitable example also write characteristics of an algorithm. 10
b) Explain first & second generations of computers. 10

Q.2 a) Explain concept of distributed and parallel computers. 10
b) What is operating system? Explain multiprogramming O.S. 10

Or

Write short note on (any four) 20

a) Assembler
b) Compiler
c) RAM & ROM
d) Network O.S.
e) Scanner
f) RISC & CISC

Q.3 Multiple choice questions 10

1) Step by step solution for given problem is called _____
a) Flow chart b) algorithm c) program d) none of these

2) RICS means _____
a) Reduced Instruction set computers.
b) Reduced Instrument computer.
c) Reduced Instruction code.
d) None of these.

3) _____ is an example of single user operating system.
a) Windows b) Linux c) DOS d) Unix

4) _____ is secondary storage.
   a) RAM B) ROM C) ERROM d) CD-ROM

5) Major electronic component used in second generation of computer was _____
   a) Vacuum tubes b) Transistor c) IC d) Microprocessor

6) 1 KB means _____ bytes.
   a) 1024 b) 924 c) 524 d) 824

7) Which of the following is not a computer language
   a) Basic b)Excel c) Java d) VB

8) Mnemonic is speciality of _____ type of language
   a) Machine language b) high level language
   c) Assembly language d) Middle level language

9) Light pen is _____.
   a) Input device b) output device c) parallel device d) none of these

10) _____ is interface between user and H/W of computer
   a) Language b) O.S c) Compiler d) Interpreter

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SUBJECT CODE NO:- L-2046
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y. (Sem-III) Examination Oct/Nov 2018
Computer Science Code - CS07
Advance C Programming

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B 1. All questions are compulsory.

Q.1 a) Define function. Explain different types of functions and function parameters. 10
b) Write a program in C to pass entire array elements to the function. 10

OR

a) Explain the following string handling functions. 10
i) Strcpy( )
ii) Strcmp()
iii) Strcat( )
iv) Strlen ( )
v) Puts ( )

b) Write an input output operations on file handling in C language. 10

Q.2 a) Define library functions. Explain any five library functions in C. 10
b) What is the use of preprocessor directives in C language? 10

OR

Write short notes on (any four) 20
a) Random access functions
b) Recursion
c) Structure
d) Pointers
e) #endif
f) Conditional compiler directives

Q.3 Multiple choice questions 10

1) Which operator in C is called a ternary operator?
   a) If----------then b) ++ c) ? : d) ( )

2) What do the 'C' and 'v' in argv stands for?
   a) 'c' means argument control 'v' means argument vector
   b) 'c' means argument count 'v' means argument vertex
   c) 'c' means argument count 'v' means argument vector
   d) 'c' means argument configuration 'v' means argument visibility

3) If the two strings are identical then strcmp ( ) function returns --------
   a) -1 b) 1 c) O d) yes

4) How will you print \n on the screen?
   a) Printf ("\n") ; b) echo "\\n" ; c) print f('\n'); d) printf (\\n");

5) Input / output function prototype and macros are defined in which header file?
   a) Conio.h b) stdlib.h c) stdio.h d) dos.h

6) A pointer is --------
   a) A keyword used to create variables
   b) A variable that stores address of an instruction
   c) A variable that stores address of other variable
   d) All of the above

7) How many times the program will print "C language"?

```
#include <stdio.h>
int main( )
{
print ("C language");
main ( );
return 0;
}
```

   a) Infinite times b) 32767 times c) 65535 times d) Till stack overflows

8) In C programming which one of the following is string termination character?
   a) '\0' b) \n' c) '\b' d) '\t'

9) Which of the following is not a bitwise operator?
   a) && b) << c) ~ d) ^

10) To use the function tolower ( ) , which of the following header file should include -------
   a) String .h b) conio.h c) ctype.h d) Don't need any header file

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SUBJECT CODE NO:- L-2047
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y. (Sem-III) Examination Oct/Nov 2018
Computer Science Code -CS08
Data Structures

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B
1. Attempt all questions
2. Illustrate your answer with suitable labeled diagram

Q.1
a) Define the term data structure. Explain the data structure operations. 10
b) What is an algorithm? Write an algorithm to implement bubble sort . 10

OR

c) Explain the multidimensional arrays. Explain representation of two dimensional arrays in memory. 10
d) Explain the different types of linked lists? 10

Q.2
a) Explain PUSH and POP operation of stack with suitable example? 10
b) Write an algorithm for linked list insertion. 10

OR

Write short notes on any four of following (each carry 5 marks) 20
a) Deques
b) Recursion
c) Binary search
d) Traversing a linked list
e) Application of stacks
f) Linked representation of stack

Q.3 Multiple choice questions 10

1) To represent hierarchical relationship between elements which data structure in suitable
a) Deaues b) priority queen c) stack d) Trees

2) Which data structure allows deleting data elements from front and inserting at rear?
a) Stacks b) Queues c) Deques d) Binary search tree

3) Operations on a data structure may be -------
a) Creation b) Destruction c) selection d) All of the above

4) Two dimensional arrays are also called -------
   a) Table arrays b) matrix arrays c) both of above d) none of above

5) Which of the following name does not relate to stacks?
   a) FIFO lists b) LIFO lists c) Piles d) Push – down lists

6) The term 'PUSH 'and 'POP' 5 related to the --------
   a) Array b) linked list c) stacks d) all of above

7) Which of the following data structure on linear data structure?
   a) Trees b) Graphs c) Arrays d) None of above

8) Finding the location of the element with a given value is ------
   a) Traversal b) Search c) Sort d) None of above

9) Before deletion into stack ----- condition has to be checked
   a) Overflow b)underflow c) Existing elements d) maximum elements

10) Which of the following is two way list?
   a) Grounded header list b) circular header list
   c) linked list with header and trailer nodes d)None of above

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SUBJECT CODE NO:- L-2029
FACULTY OF SCIENCE
B.Sc. T.Y. (Sem-V) Examination Oct/Nov 2018
Computer Science Paper CS 015
(Software Engineering)

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B 1) All questions carry equal marks.
2) All questions are compulsory.

Q.1 a) Discuss software myths in detail ? 10
b) Give modeling principles in detail ? 10

OR

a) Define software engineering? Explain characteristics of software in detail? 10
b) Differentiate between product and process. 10

Q.2 a) Explain water fall model with its advantages and disadvantages. 10
b) What is agile process? Enlist agility principles? 10

OR

Write short notes on:- (any four) 20
a) Web app attributes
b) Industrial XP
c) Personal software process (PSP)
d) Planning principles
e) SDLC
f) Construction principles

Q.3 Multiple Choice Questions. 10

1) Software is developed or engineered; it is not ---------- in the classical sense.
   a) Hardware b) Element c) manufactured d) system

2) ---------- model combines elements of linear and parallel process flows.
   a) Random b) Linear c) Layered d) Incremental

3) Software is ---------- that, when executed provide desired features, functions and performance.
   a) Element b) Set of programs c) set of instructions d) RISC

4) Agile software development is based on ---------- development.
   A) Incremental b) prototype c) stepwise d) complex

5) Software is ---------- that enables the program to adequately manipulate information.
   a) System b) data structure c) information d) Hardware

6) ---------- is collection of activities, actions and tasks that are performed when some work product is to be created.
   a) Product b) process c) people d) personal S/W.

7) ---------- is a layered technology.
   a) Hardware b) software Engineering
   c) system engineering d) manufacturing.

8) The spiral model was originally proposed by ----------
   a) Dijkstra b) Dennis Ritchie c) Barry Bohem d) Barry Richards

9) SDLC stands for ----------
   a) System Development Life Cycle b) Software Development Life Cycle
   c)Hardware Development Life Cycle d) Simple Development Life Cycle

10) The foundation for software engineering is the ---------- layer.
   a) Hardware b) process c) product d) problem statement

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SUBJECT CODE NO:- L-2030
FACULTY OF SCIENCE
B.Sc. T.Y. (Sem-V) Examination Oct/Nov 2018
Computer Science Paper- CS- 016
(Web Designing)

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B

1) All questions are compulsory.

Q.1 a) Explain <IMG> tag in HTML with its attributes? 10
b) What is Javascript? Explain Inline & external Javascript? 10

OR

c) What is cascading style sheet? Explain CSS properties (Any 4)? 10
d) Explain <TABLE> tag with column and rows attribute with example? 10

Q.2 a) Explain DOM in Javascript? 10
b) Write the Rules for naming variable in Javascript. 10

OR

c) Write short notes on (any 4) 20
i) Image file Types
ii) element
iii) Javascript operators
iv) XHTML
v) Inline frame
vi) Class Selector

Q.3 Multiple Choice Questions. 10

1) The ---------- elements contains hidden information such as metadata that describes the HTML document & instructions.
a) <HTML> b) <BODY> c) <HEAD> d) None

2) In CSS ---------- color is represented by # FFFFFF hex value.
a) Black b) white c) green d) red

3) A style rule in CSS is composed of ---------- parts.
a) 2 b) 3 c) 4 d) 5

4) Is an example of ---------- var pizzapacts- [‘pepperone’, ‘onion’, ‘bacon’].
a) Literal array b) condensed array c) both a & b d) None

5) ---------- Tag is used for contact information.
   a) <abbr> b) <area> c) <address> d) None

6) ---------- tag is used to provide simple content embedding.
   a) <embed> b) <img> c) <object> d) none

7) HTML5 originates from HTML----------
   a) 4.01 b) 3.01 c) XHTML d) all of above

8) ---------- is defined as the study of meaning of linguistic expressions.
   a) Semantic b) Markup language c) HTML d) None

9) Each piece of data objects can hold is called ----------.
   a) Objects b) Stem c) property d) array

10) ----------locates the elements in HTML document to be styled.
   a) Selector b) declaration block c) both a & b d) None.

OR

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SUBJECT CODE NO:- L-2030
FACULTY OF SCIENCE
B.Sc. T.Y. (Sem-V) Examination Oct/Nov 2018
Computer Science Paper- CS- 016
(VB .Net)

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B 1) Attempt all questions.
2) Illustrate your answer with suitable labelled diagram.

Q.1 a) Explain VB.Net 'S GUI controls. 10

b) Explain conditional statement with suitable example. 10

OR

c) Explain exception handling with suitable example. 10

d) Explain function and sub procedures with example. 10

Q.2 a) Explain mouse events with example. 10

b) Define :- i) events ii) method iii) modules iv) class v) structure 10

OR

Write short notes on (Any four) 20
a) VB.Net IDE b) Logical Operator c) CLR
d)MDI e) Constructor f) VB.Net's Data type

Q.3 Multiple Choice Questions. 10

1. VB.Net supports constructors and destructors.
   a) True b) False

2. VB.Net is strongly ----------. This means you must declare all variables by default.
   a) Untyped b) Typed
   c) Case sensitive d) None

3. Following data types are/is not supported by VB.Net
   a) Variant b) Currency
   c) a & b d) None

4. RTF means ---------

a) Read text format
b) Rich typed format
c) Reach text format
d) Rich text format

5. ---------- performs string pattern matching.

a) < >
b) Like
c) AND
d) OR

6. You can terminate a for Loop at any time with ---------- statement.

a) Exit for
b) break
c) unload
d) break for

7. You can use multiple catch statements when you filter exception.

a) True
b) False

8. The main area of a form- the area where everything take place – is called the ---------- Area.

a) work
b) client
c) toolbar
d) menubar

9. ---------- can be a basic windows form, a code file, a module file for storing functions.

a) .vb
b) .CPP
c) Both a & b
d) None

10. ---------- represent the object's build in procedure

a) Event
b) method
c) properties
d) none