

Total No. of Printed Pages:2

SUBJECT CODE NO:- W-4045

FACULTY OF SCIENCE

B.Sc.(Computer Science) F.Y (I-Sem) Examination March/April 2017
Computer Fundamentals-CS101-T (Revised)

[Max.Marks:50]

Time: 1:30 Hours

Please check whether you have got the right question paper.

N B

20

- Q.1 Attempt any one :-
What do you mean by CPU? With the help of diagram discuss various components of CPU and there working.
OR
Define O.S. what is the need of O.S.? Illustrate basic function carried out by O.S.

20

- Q.2 Attempt any one :-
Explain the term flowchart with all its basic symbol. Draw the flowchart for addition of two number
OR

Write short note on any four

- 1) Time sharing O.S
- 2) Plasma display
- 3)Distributed computer
- 4) EPROM
- 5) Linker & Loader

10

- Q.3 Choose correct Option
- 1) Which of the following is not a computer language
 - a) High level language
 - b) Medium level
 - c) Low level language
 - d) All of the above
 - 2) ASCII stand for
 - a) American stable code for International Interchange.
 - b) American Standard case for Institutional Interchange.
 - c) American Standard code for Information Interchange.
 - d) American Standard code for Interchange Information
 - 3) From which generation of computers the printers were used.
 - a) First
 - b) Second
 - c) Third
 - d) Fourth
 - 4) ALU is
 - a) Array logic Unit
 - b) Arithmetic logic unit
 - c) Application logic unit

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d) None of the above

Total

5) A group of eight bits used to represent character

a) Byte

b) Bit

c) Binary

d) None of the above

[Time]

6) Main storage is also called

N.B

a) Accumulator

b) control unit

c) Register unit

d) memory

7) Which operation is not performed by computer

Q.1

a) Inputting

b) Processing

c) Controlling

d) Understanding.

8) Which of the following is input device

a) Screen

b) Printer

c) Speaker

d) Keyboard.

Q.2

9) Which of the following is not a computer language

a) MS-excel

Q.3

b) Basic

c) JAVA

d) COBOL

10) DAT Stands for

Q4

a) Digital Analog Terminal.

b) Digital Access time

c) Digital Audio tape

d) Digital Access Terminal

Q5

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N.B

Please check whether you have got the right question paper.

- i) All question carry equal marks
- ii) All question are compulsory

Q.1

Fill in the blanks

10

- i. $(B3C6)_{16} = (?)_8$
- ii. $(7AAC)_{16} + (8354)_{16} = (?)_{16}$
- iii. 2's complement of 01111 is _____
- iv. $(0111)_2 + (0111)_2 = (?)_2$
- v. $(67)_{10} = (?)_{2x}$
- vi. $x \cdot \bar{X} = ?$
- vii. A NAND gate produces zero when _____
- viii. The basic building block in digital system is called as _____
- ix. Digital multiplexer is _____ type of logic circuit.
- x. 1's complement of 110101 is _____

Q.2 Define binary adder, explain full adder with suitable diagram is truth table.

10

OR

- a. Explain the working of JK flipflop.
- b. Explain complementation & commutative law with suitable example.

Q.3

What is the counter? Explain the BCD counter with suitable diagram.

10

OR

- a. Define subtracter. Explain half subtractor with suitable diagram.
- b. Explain half adder with suitable diagram.

Q4

Draw k-map for $\Sigma m(1,2,3,4,5,6,7,8,9,10)$ & reduce the function.

10

OR

- a. Explain the de-morgan,s first theorem.
- b. Explain the serial -in-serial -out resister.

Q5

Write short notes on (any two)

10

- a. 4:1 multiplexer
- b. Basic gates
- c. Three variable K-map
- d. R5 Flip flop

Total No. of Printed Pages:1

SUBJECT CODE NO:- W-4057

FACULTY OF SCIENCE

B.Sc.(Computer Science) F.Y (I-Sem) Examination March/April 2017
Microprocessor - I-CS103-T (Revised)

[Time: 1:30 Hours]

[Max.Marks:50]

- N.B Please check whether you have got the right question paper.
i) All questions carry equal marks.
ii) All questions are compulsory.

- Q.1A) Fill in the blanks. 05
i) The 8086 is ----- bit microprocessor.
ii) The syntax of MOV instruction is MOV -----, -----.
iii) If CS = 0400 and IP = 1000H, then 20 bit physical address is -----.
iv) ----- register is 8 bit counter.
v) IF is ----- flag.
- B) Explain the purpose of following instruction in one line. 05
i) ADC
ii) MUL
iii) DIV
iv) BCD
v) ASCII.
- Q.2 a) Explain pop instruction with its syntax and use. 05
b) Explain real mode memory addressing. 05
OR
c) What is flag? Explain flag of 8086 with the help of diagram. 10
- Q.3 a) Explain ADD and ADC instruction with their syntax. 05
b) Explain the term protected mode addressing. 05
OR
c) What is data addressing mode? Explain any 5 data addressing modes with example. 10
- Q.4 a) Explain the Function of queue in 8086 microprocessor. 05
b) Explain the difference between following instructions. 05
i) MOV AL, [1000H]
ii) MOV AL, [SI]
OR
c) WALP to subtract 1234 H from 5678 H. store result on m.L.3000H. [DS =0400H] 10
- Q.5 Write a note one (Any two) 10
i) BIU
ii) EU
iii) Memory paging
iv) Computer data formats.

SUBJECT CODE NO:- W-4063

FACULTY OF SCIENCE

FACULTY OF SCIENCE
B.Sc.(Computer Science) F.Y (I-Sem) Examination March/April 2017
C Programming - I-CS104-T (Revised)

[Time: 1:30 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- i) All questions carry equal marks.
 - ii) All questions are compulsory.

No 1 Fill in the blanks

10

- i) An integer variable is allocated ----- bits of memory space.

- a) 16 b) 8 c) 4 d) 24

- ii) The ‘\n’ directive is used as-----

- a)normal b)new line c) near line d)none of above
iii)In the looping statement if the control statement is positioned at the end then that loop is called as --
----- controlled loop

- a)not b)well c)exit d)entry

- iv) A ternary operator require ----- operand/s.

- a)1 b) 2 c)3 d)zero

- v) The syntax of do loop is -----

a)---	b) ---	c)-----	d)None of above
-----	do	-----	
do (condition)	{block of statements}while (condition);	{	block of statements
{	-----	} do (condition)	
block of statements	-----	-----	
}	-----	-----	

- vi) A list of items can be given one variable name using more than two subscripts is called as ----- array.

- a)single dimensional b)Multi-dimensional c)two dimensional d)zero dimensional

vii)-----refers to the name of variables, functions and arrays.

- a)constant b)variable c)Identifiers d)keywords

viii) What will be the value of iNo after executing following statement

$$iNo = (3/2 * 4) + (3/8 + 3)$$

- a) 8 b) 7 c) 9, 375 d) 9, 38

ix) Predict the output of following programs

```
#include <stdio.h>
```

include <string>

6

		[Time:
		N.B
		Q.1
	a)20,40 b)20,20 c)40,40 d)garbage value	05
	x) <code>#include <stdio.h></code>	
	void main()	
	{	
	Signed int iN;	
	Printf("%c",49);	
	}	
	a)49 b)1 c)0 d)A	10
Q.No.2	a)Explain short hand assignment operators used in C-language	05
	b) Explain the procedure and order of evaluation of operators in C-language .	05
	OR	
	c) Explain conditional OPERATOR used in C-language with suitable example.	10
Q.No.3	a)Write a program in C to find maximum of iNo & iNo1 and store it in i Ans.	05
	b)Write a program in C to generate table of 13.	05
	OR	
	c)Write a program in C to generate following output using nested loop.	
	* * * * *	10 Q.2
	* * * *	
	* * *	
	* *	
	*	Q.3
Q.No.4	a)Explain memory representation of an array with suitable example.	05
	b)List and explain various format specifiers used in printf() statement.	05 Q.4
	OR	
	c)Write a program in C to accept values of 3x3 matrix and display it.	
Q.No.5	Write a short note on (any two)	10
	a)Primary data types	10
	b)Switch-case statement	Q.5
	c)Break and continue statement	
	d)Types of constants.	

[Time: 1:30 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B
i) All questions are compulsory
ii) All questions carry equal marks.

Q.1	Multiple choice questions.	10
	1) ----- is the last element of communication process. a)Encoding b)Decoding c)Feedback d)Channel	
	2) Communication at equal level is ----- communication. a)Vertical b)Horizontal c)upward d)Downward	
	3) Ganga is ----- noun. a)abstract b)proper c)common d)collective	
	4)----- is used for short pause in sentence. a), b)! c)' ' d)!	
05	5)Teacher communicates with students is ----- communication. a)Vertical b)Download c)upward d)horizontal	
05	6)----- is important before speech. a)Training b)Drama c)Reharsal d)Discussion	
10	7)----- is the objective of communication among equals. a)warning b)co-ordination c)instruction d)request	
05	8)Channel = ----- a)Source b)medium c)encoding d)information	
05	9)----- is an auditory symbol. a)board b)Whistle c)audio-visual d)Oral	
0	10)Body language is ----- communication a)non verbal b)Oral c)Written d)Any other	
Q.2	A)Write the importance of communication in brief. B)Define communication and explain its nature in organization.	05 05
	OR	
Q.3	A)What is the process of communication? A)Write a brief note on horizontal communication. B)Explain verbal media of communication in brief.	10 05 05
	OR	
Q.4	A)Explain the different medias of oral communication. A)How do we improve vocabulary building? B)What are the qualities of effective speaker?	10 05 05
	OR	
Q.5	A)Explain C's of good communication. Write short notes on (Any two) A)Horizontal communication B)Dialogue C)Face to Face communication D)What is decoding?	10 10

Time: 1:30 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

B

- i) Attempt all question.
- ii) All question carry equal marks.

1 Multiple choice question

10

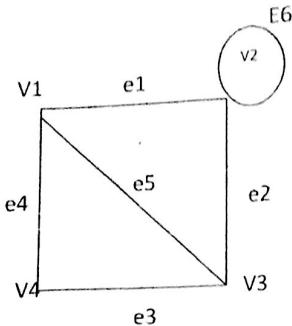
- a) A vertex having no incident edge is called a/an ____ vertex.
 - i) Pendent ii) Isolated iii) Null in none
- b) Find the elements of set B who is a set of all positive integers which are greater than 20 and less than 36
 - i) B = { 24,26,28,30,32,34 }
 - ii) B= { 24,27,28,30,32,34 }
 - iii) B= { 24,25,26,27,28,29 }
 - iv) B= { 24,25,29,30,32 }
- c) A Boolean expression over ($\{0,1\}, v, n, -$) is said to be in disjunctive normal form if it is a join of ____
 - 1) Maxterm ii) Minterms iii) Both i& ii iv) None
- d) Represent mathematically following statement " A is a set of all positive integers who are less than 30 and greater than 12"
 - i) A={x | 12>x>30}
 - ii) A={x | 12≥x≥30}
 - iii) A={x | 12>x≥30}
 - iv) A={x | 12≥x>30}
- e) In the 1: M mapping M=_____
 - i) One ii) Two iii) Many iv) None
- f) A walk in which no vertex (except the initial and the final vertex) appears more than once is called a ____
 - i) Loop ii) Cycle iii) Circuit iv) None
- g) A set is called as binary relation on set A and set B if it is a subset of ____
 - i) A×B ii) A∩B iii) A∪B iv) A-B
- h) In the following graph the degree of the vertex V₂ is ____

C) Given

a
b

Q.5 Write shc

- a) Vt
- b) P:
- c) C
- d) C



- i) 2 ii) 3 iii) 4 iv) 6
- I) In the above graph number of loop/s present = _____
- i) 2 ii) 3 iii) 1 iv) 4
- j) $A \cup A = \underline{\hspace{2cm}}$
i) A ii) \bar{A} iii) $A \cap A$ iv) None

Q.2 a) Draw venn diagram for $(A \cup B \cup C)$ and $(A \cap B \cap C)$

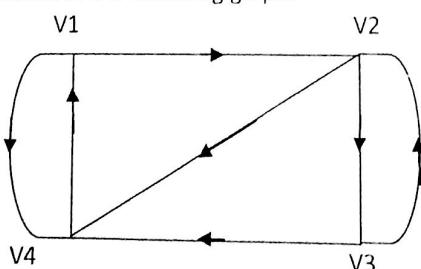
b) If $A = \{a, b, c\}$ then find $P(A)$ i.e. power set of A
OR

C) A serve has been taken on mode of transport used by each person in daily transport to check bus, train and other transport media more than one answer is allowed the result of above survey is as follows

- a) People travelling by bus = 25
- b) People travelling by train = 15
- c) People travelling by automobile = 40
- d) People travelling by bus and automobile = 9
- e) People travelling by bus and train = 15
- f) People travelling by train and automobile = 8
- g) People travelling by all modes = 5

Calculate how many people participated in the survey.

- Q.3 a) Draw a graph $G = (V, E)$ where $V = \{a, b, c, d\}$ and $E = \{a, b\}, \{b, b\}, \{c, d\}, \{b, c\}$
b) Draw the incidence matrix of the following graph.



C) If $A = \{p, q, r, s, t\}$, $B = \{s, t, u\}$ and $C = \{p, 1, q, 2\}$ then find union intersection and ring sum of given sets.

- Q 4 a) State and prove distributive law of three sets A, B, and C
b) Let $A = \{1, 2, 3, 4\}$ enlist elements of relation $R = \{(a, b) / a \text{ divisible by } b\}$ also draw graphical form of R

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OR

C) Given $A = \{1, 2, 3, 4\}$ and $B = \{\alpha, \beta, \gamma\}$, R be the relation from A to B.

10

$$R = \{(1, \alpha), (2, \gamma), (3, \alpha), (4, \beta), (4, \gamma)\}$$

a) Determine the tabular form of the R

b) Represent relation R graphically

Q.5 Write short note on following (any2)

10

- a) Venn diagram
- b) Principle of inclusion and exclusion for two sets
- c) Connected graph and component graph
- d) Quaternary relation

1

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[Total No. of Printed Pages: 2]

CODE NO:- P-4014

FACULTY OF SCIENCES

B.Sc. (Comp Sci)(First Year) Sem-I Examination

Nov 2014

C-Programming -I

CS 104 – T (Rev)

Time: Two Hours]

[Max.Marks:50]

"Please check whether you have got the right question paper."

- i) All questions are compulsory
- ii) Each question carries equal marks

Fill in the blanks

10

- a) A double type variable is allocated _____ bits
- b) An unary operator require _____ operand
- c) Depending upon the position of _____ in the loop, a loop may be entry controlled or exit controlled loop
- d) The symbol '\a' stands for _____ lab.
- e) The general form or syntax of printf() statement is _____
- f) _____ in c refer to fixed values that do not change during the execution of a program
- g) A list of items can be given one variable name using two subscript is called as _____
- h) What will be the value of integer variable iNo is _____ after executing following statement,
 $iNo = (9+2)* 4+3 -5/3$
- i) What will be the output of following program

```
# include <stdio.h>
Void main( )
{
    Int iaX[5] = {};
    Printf("\n %d %d %d", iaX[0],iaX[3],iaX[5]);
}
```

- j) What will be the output of following program,

```
# include <stdio.h>
Void main()
{
    Int iNo=8;
    If (iNo>12);
    {
        iNo=iNo+20;
    }
    Printf("\n %d", jX--);
}
```

[Total No. of Printed Pages: 1]

CODE NO:- P-4052

FACULTY OF SCIENCE

B.Sc. Information Technology First Year (Sem-I) Examination

Oct 2014

Computer Fundamentals(Revised) IT 101-T(Rev)

Time: Two Hours

[Max. Marks: 50]

"Please check whether you have got the right question paper."

- 1) Attempt all questions.
- 2) All questions carry equal marks.

Fill in the blanks.

10

- 1) In latest generation computers, the instruction are executed.....
- 2) Human beings are referred to as Homosapiens which device is called silico-spiens?
- 3) Output quality of printer is measured by
- 4)in measured in bits/bytes.
- 5) In binary languagebits are present.
- 6)device is used to read competitive exam answer sheet.
- 7) EEPROM means.....
- 8) Operating system is
- 9)technology is used in second generation of computers.
- 10) A computer program that converts an entire program into machine language is called.....

- a) Explain multiprogramming operating system.
- b) Explain, interpreter with suitable example.

10

OR

- a) Explain characteristics of computer in detail.
- a) Explain 3rd and 4th generation of computer.
- b) Explain assembly language with suitable example.

10

OR

- a) Explain RISC & CISC with suitable example.
- a) Explain ORC and OBR with suitable example.
- b) Explain the features of processor.

10

OR

- a) Explain classification of computers.

Write a short note (any two)

10

- a) Plotters
- b) Tap drive
- c) EPROM.

[Total No. of Printed Pages: 1]

CODE NO:- P-4002

FACULTY OF SCIENCES

B.Sc. Computer Science (First Year) Sem-I Examination

Oct 2014

Computer Fundamental

Paper No. -CS:101T Revised

Time: Two Hours]

[Max.Marks:50]

"Please check whether you have got the right question paper."

- i) All questions carry equal marks
- ii) Attempt all questions

Fill in the blanks ?

05

- i) CD-ROM stands for _____
- ii) OCR means _____
- iii) Programs are executed on the basis of a priority number in _____ operating system
- iv) Fifth generation computers are based on _____
- v) Memory is made up of large number of _____

05

- b) State true or false?
- i) CPU controls all input, output, & processing
- ii) A collection of 8 bits is called Byte
- iii) TB is the largest unit of storage
- iv) A computer program that converts assembly language to machine language is compiler
- v) The algorithm refers to the logic of a program

10

- a) Explain the terms
 - a) plotters b) tape drive

OR

- b) Define computer? Explain the characteristics & features of computer in detail?

10

- a) Explain the following?
 - a) Pendrive b) Network O.S.

OR

What is operating system? Explain the different function of operating system?

10

- a) Explain in brief
 - a) DVD b) OCR

OR

Explain the working of plasma display in detail?

Write a short notes on..... (any two)

10

- a) RISC and CISC b) Time – sharing O.S. c) Light pen

[Total No. of Printed Pages: 1]

CODE NO:- P-4018

FACULTY OF SCIENCE

B.Sc (First Year) Sem- I Examination

Computer Science Oct 2014

Communication Skill-I

Paper No-CS-105T

Time: Two Hours]

[Max. Marks:50]

"Please check whether you have got the right question paper."

- .B
- i) All questions are compulsory.
 - ii) All questions carry mark shown right side.
 - iii) Use black or blue pen only.

1	Fill in the blanks	10
1)	Communication is a _____ way process.	
2)	The message needs a proper _____ to be transmitted	
3)	_____ helps in the completion of a communication process	
4)	The sender has to clear about the _____ of the communication.	
5)	_____ communication is best when it is face to face	
6)	Listening is not an essential skill to be learned (T/F)	
7)	It is important to follow email etiquette to protect your business from liability (T/F)	
8)	_____ is the receivers response to the senders communication.	
9)	Student sharing his ideas with friend is _____ type of communication	
10)	The punctuation mark used to quote is _____	
2	a) Justify "language as a tool of communication"	05
b)	Discuss the importance of feedback in communication	05
	OR	
a)	State the need and importance of communication in global world.	10
a)	Punctuation implies greater meaning while writing -comment	05
b)	Narrate the role of grammar in paragraph writing	05
	OR	
a)	What is the role of planning, preparation and practice in a presentation?	10
a)	Discuss the traits of a good listener	05
b)	Write a conversation that accrues between you and friend, while you invite him for your birthday	05
	OR	
a)	Explain the importance of listening & Discuss the Barriers of effective listening.	10
	Do as directed (any five)	
	(Rewrite the sentences using capital letter & punctuation)	10
1)	hush! the baby is asleep.	
2)	where' will I find my books?	
3)	he said "truth conquers in the long run."	
	(fill in the blank correctly with a, an, and, the)	
4)	_____ giraffe is _____ tallest animal	
5)	_____ child is father of _____ man	
	(use the prepositions: At, In, On, by)	
6)	The train will arrive _____ 120' clock	
7)	9 was born _____ 1990.	
	(Rewrite the sentence in correct order)	
8)	The east rise in the sun.	

[Total No. of Printed Pages: 2]

CODE NO:- P-4022

FACULTY OF SCIENCE

B.Sc(First Year) Sem- I Examination

Nov-2014

Computer Science

Mathematical Foundation

Paper No.-CS 106-T

Time: Two Hours

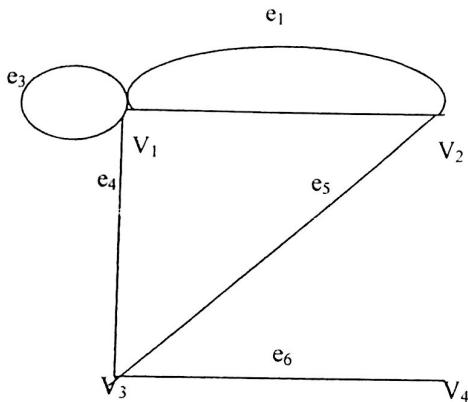
[Max. Marks:50]

"Please check whether you have got the right question paper."

1 All questions carry equal marks.

2 All questions are compulsory

- a) Represent mathematically following statement "A is a set of all positive integers who are less than 30 and greater than 12" 10
b) Find elements of set B, where B is a set of all positive even integers which are greater than 20 and less than 36.
c) $A \cup \bar{A} = \underline{\hspace{2cm}}$
d) A vertex having no incident edge is called a/an _____ vertex.
e) calculate the degree of the vertex V_1 in the following graph



- f) How many loops presents in the graph G_1 shown in above figure.
g) a walk in which no vertex (except the initial and the final vertex) appears more than once is called a _____
h) a set is called as a binary relation on set A and set B if it is a subset of _____
i) in the 1:m mapping m = _____
j) a Boolean expression over $(\{0, 1\},)$ from if it is a join of _____

- a) Define sets A,B and C such that $A \in B, B \in C$ and $A \subset C$ 05
b) if $A = \{1, 2, 3\}$, then find $P(A)$ i.e. power set of A 05
OR
a) Among 100 students 32 students have physics, 20 students have computer science, 45 students have Mathematics, 15 students have mathematics and Physics, 7 students have Computer Science and Mathematics, 10 students have Computer Science and Physics and 30 students do not study any subject. Find the number of students study in all their subjects. 10

- B "Please check whether you have got the right question paper."
- i) All questions are compulsory
ii) Illustrate your answer with suitable labeled diagram.
- 1 A) Describe the technological evolution taken place in different generation of computer. Enlist the purpose of various computer register used with the CPU of current generation of computer & discuss the cycle of operation executed by the CPU. 20
OR
A) Explain the term algorithm & write about its advantages & disadvantages. Formulate an algorithm to find the number of occurrences of the letters A, E and S in an English paragraph.
- 2 A) What do you mean by memory cell? Illustrate the main characteristics of a memory cell. Describe in brief about the primary and secondary storage devices of computers. 20
OR
Write short notes on (any four):-
A) i) Flow chart Symbols
ii) Random Access Memory
iii) Reduced Instruction set Computer (RISC)
iv) Touch Screen & Light pen
v) Parallel computers system
vi) Network O.S.
- 3 Multiple choice questions:- 10
i) In a computer, most processing takes place in
a) Memory
b) RAM
c) Motherboard
d) CPU
ii) Which of the following helps to protect floppy disks from data getting accidentally erased?
a) Access notch
b) Write protect notch
c) Entry notch
d) Input notch
iii) The computer abbreviation KB usually means
a) Key block
b) Kernel boot
c) Kilo byte
d) keyboard
iv) switching device of fifth generation computer is -----
a) vacuum tubes
b) transistors
c) IC
d) VLSI
v) Cathol Ray tube is a form of -----
a) Keyboard
b) Mouse
c) Monitor
d) Motherboard

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- vi) Daily wheel Drum, Chain etc are the -----
a) Flowchart
b) Mouse
c) Printer
d) VDU
- vii) PARAM is an example of
a) Super computer
b) PC
c) RAM
d) Laptop
- viii) Which language is directly understood by the computer without translation program?
a) Machine language
b) Assembly language
c) High level language
d) None of above
- ix) Which unit holds data permanently?
a) Input unit
b) Secondary storage unit
c) Output unit
d) Primary Memory unit
- x) Access time is
a) Seek time + latency time
b) Seek time
c) Seek time - latency time
d) Latency time

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"Please check whether you have got the right question paper."

i) Attempt all questions.

Write in detail about language of business writing

20

OR

What is written communication? Explain different channels and methods of written communication.

Discuss importance of communication in English at workplace.

20

OR

Attempt any four of following short notes

- i) Summarization
- ii) Uses of five 'C' in communication.
- iii) Importance of vocabulary building.
- iv) Dialogue: A way of interaction.
- v) Context and environment for communication
- vi) Dynamic communication

Multiple choice questions.

10

- i) The sender has to choose suitable -----to send the message.
 - a) Feedback
 - b) Source
 - c) Channel
 - d) None
- ii) A new idea proposed for consideration is -----
 - a) Complaint
 - b) Representation
 - c) Suggestion
 - d) All of these
- iii) -----report is written after making a thorough study.
 - a) Survey
 - b) Investigation
 - c) Routing
 - d) None
- iv) -----interview is given to an employee who has resigned.
 - a) Stress
 - b) Exit
 - c) No-motion
 - d) All of the above
- v) Grapevine is a -----type of communication.
 - a) Horizontal
 - b) Vertical
 - c) Mixed
 - d) All

- vi) A lecture is delivered -----a teacher.
- a) By
 - b) Given
 - c) Of
 - d) None
- vii) It raining, we have to have -----umbrella.
- a) a
 - b) an
 - c) the
 - d) none
- viii) Communication is -----process.
- a) One way
 - b) Two way
 - c) Three way
 - d) All of the above
- ix) Interview is -----type of communication.
- a) One way
 - b) Two way
 - c) Three way
 - d) None of the above
- x) It is -----important technique.
- a) a
 - b) an
 - c) the
 - d) none

N.B

Q.1

Q.2

Q.3

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[Total No. of Printed Pages 1]

CODE NO:- D-4007

FACULTY OF SCIENCE

B.Sc(Semi-I) First Year Examination - OCT - 2015

Computer Science

Digital Electronics -(Revised) CS102T

[Time: 1:30 Hours]

[Max. Marks: 50]

N.B

"Please check whether you have got the right question paper."

i) Attempt all questions.

ii) Illustrate your answer with suitable diagram

Q.1

What is Boolean algebra? explain postulates of Boolean algebra and any three laws with logical system

20

OR

Q.2

Explain 2 variable, 3 variable and 4 variable k – map with example

20

What is register? Explain serial – in ,serial out and parallel – in, parallel out with diagram

OR

Write a short note on (Any four)

A) Basic gates

B) Universal gate

C) Half adder

D) Full adder

E) 2:4 de-multiplexer

F) Clocked D flip – flop

Q.3

Fill in the blank and rewrite the following

10

1) The output of A.A is _____
a) 0 b) A c) \bar{A} d) 1

2) The _____ gate is called universal gate
a) Basic b) OR c) NOT d) NAND

3) 4 variable k – map consist _____ cell

a) 8 b) 4 c) 16 d) 12

4) $\overline{A + B + C} = _____$

a) $\bar{A} + \bar{B} + \bar{C}$ b) $\bar{A}, \bar{B}, \bar{C}$ c) A+B+C d) A.B.C

5) $(E)_{16} + (E)_{16} = (?)_{16}$
a) 1C b) C1 c) 1E d) 1D

6) $(1000)_2 - (0011)_2 = (?)_2$
a) 1000 b) 0111 c) 1011 d) 1001

7) $(1010)_2 = (?)_{10}$
a) F b) 12 c) 10 d) A

8) _____ is a group of flip – flop
a) MUX b) Register c) Gate d) CLK

9) BCD counter counts from 0000 to _____
a) 1001 b) 0000 c) 1010 d) 1111

10) Two's complement of $(1000)_2$
a) 0111 b) 1000 c) 1110 d) 1001

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Que-display amt from orders14

Querry-

SQL> select amt from orders14;

AMT

1500
2000
1700
9000
1000

Que-display all details of order14 where odate is 04-mar-16

Querry-

SQL> select * from orders14 where odate='04-mar-16';

ONUM	ODATE	AMT
24	04-MAR-16	9000

Que-display all details from orders14 table where onum is 13

Querry-

SQL> select * from orders14 where onum=23;

ONUM	ODATE	AMT
23	03-MAR-16	1700

Time: 1:30 Hours

"Please check whether you have got the right question paper."

i) Attempt all questions.

ii) Illustrate your ensure with suitable diagram

1.1 Draw microprocessor base personal computer system. Explain its all component in detail.
OR

What is addressing mode? Explain all types of addressing modes of 8086 with suitable example

20

1.2 A) Explain ADD and ADC instructions with syntax. WALP to add two 16 bit numbers and store result on memory location.
OR

20

A) Write a short note on (any four)

- a) History of microprocessor
- b) BIU
- c) EU
- d) 20 bit physical address
- e) QUEUE

f) Segment register

Q.3 Fill in the blank with correct answer and rewrite the following

10

1) _____ instruction remove data from stack
a) RET b) CALL c) PUSH d) POP2) SS: _____ is base: offset pair
a) CS b) IP c) BP d) SP3) If result is zero, _____ flag is set
a) 0 b) P c) Z d) S4) _____ is the example of direct addressing mode
a) Mov AL, [1000] b) mov AL, 11H c) mov AL, [BX] d) mov AL, BL5) A group of ffs is a _____
a) Queue b) Stack c) BIU d) EU6) $2^{20} =$
a) 64 mB b) 1 kB c) 1MB d) 64 kB7) The ALU of 8086 is _____ bit
a) 16 b) 8 c) 20 d) 328) Borrow is indicated by _____ flag
a) Sign b) carry c) zero d) parity9) CALL instruction is used with _____ instruction
a) PUSH b) RET c) MOV d) CMP10) _____ is one of the segment register
a) BP b) DS c) SP d) IP

SNUM SNAME SCITY MOBNO

3 priti obad 8372986400

Que-list all salespeople which not having city bhum

Querry-

SQL> select * from salespeople147 where scity != 'bhum';

SNUM SNAME SCITY MOBNO

1 anita obad 9823959812
2 priya pune 7685237702
3 priti obad 8372986400
4 jyotsna sarula 9324872301

(v) Que-display name of salespeople147 table starting with 'p'

Querry-

SQL> select sname from salespeople147 where sname like 'p%';

SNAME

(v) priya

priti

(v) pooja

FACULTY OF SCIENCE

B.Sc (Sem-I) First Year Examination - OCT – 2015

Computer Science

Mathematical Foundation- CS106T - (Revised)

Time: 1:30 Hours]

[Max. Marks: 50]

"Please check whether you have got the right question paper."

- Attempt all questions.
- Illustrate your answer with suitable diagram

A) With the help of Venn diagram, describe the principle of inclusion and exclusion for two set A and B. 20

Solve, if in a survey 1000 peoples, it was found 500 peoples like mango, 300 peoples likes apple and 120 people likes both mango & apple. Find how many people like at least one fruit & how many do not likes any of the fruit.

OR

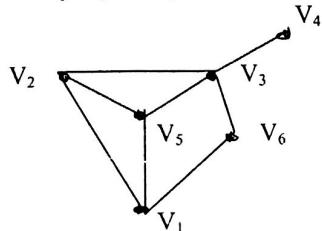
A) Define the terms related to set: - singleton, subset, proper subset, disjoint set, symmetric difference.

^A Let $A = \{1, 2, 3, \dots, 10\}$, $B = \{2, 4, 6, 8, 10\}$ and $C = \{1, 3, 5, 7, 9\}$, find

- $A \cup B$
- $A \cap B$
- $A - B$
- $A - C$
- $B \oplus C$

A) With the help of suitable example, illustrate the union, intersection and ring sum operation on graph. 20

Also, what do you mean by adjacency matrix, draw the adjacency matrix for the following graph:-

ORA) Write short notes on (any four)

- Incidence matrix
- Finite and infinite graph
- Tabular form of binary relation
- Equivalence relation
- Associative law
- Walks

c2a586ddf5f44e3655f8545e0684ad90

[T]

Q.3 Multiple choice questions

- i) If $A = \{x, y, z\}$ and $B = \{1, 2, x, y\}$ then $A - B$ is given by
 a) $\{z\}$ b) $\{1, 2\}$ c) $\{x, y\}$ d) $\{\phi\}$
- ii) A well defined collection of object is called a _____
 a) Element b) member c) relation d) set
- iii) If $A = \{x | x \text{ is prime number}, 10 < x < 23\}$ then
 a) $A = \{11, 13, 17, 19\}$ b) $A = \{11, 13, 15, 17, 19\}$ c) $A = \{11, 13, 17, 19, 23\}$ d) $A = \{13, 17, 19\}$
- iv) If $A = \{1, 2, 3\}$ and $R = \{(1,1), (2,2), (2,3), (3,2)\}$ then the relation R is
 a) Reflexive b) symmetric c) not transitive d) not symmetric
- v) Which of following is NOT singleton sets?
 a) $A = \{x | \sqrt{x} = 16\}$ b) $B = \{y | y^2 = 36\}$ c) $C = \{q | (q-4)^2 = 0\}$ d) $D = \{x | 1+2x = 3x, x \in w\}$
- vi) If $n(A) = 35$, $n(A \cap B) = 25$, $n(A \cup B) = 50$, then $n(B)$ is given by _____
 a) 10 b) 20 c) 40 d) 25
- vii) Which of the following is empty set?
 a) Set of all even prime number b) $B = \{x | x \text{ is capital of India}\}$ c) $C = \{x | \sqrt{x} = 25\}$
 d) $D = \{t | t \text{ is a triangle having four sides}\}$
- viii) Other name for directed graph is _____
 a) Direct graph b) digraph c) Dir-graph d) Directed Gr.
- ix) If the degree of a vertex is one, it is called a _____
 a) Pendant vertex b) isolated vertex c) source d) sink
- x) In an adjacency matrix, the deg(v-i) is equal to the number of _____ in the i^{th} row or i^{th} column
 a) 1's b) 0's c) 1's and 0's d) none

[Ti]

N.B

Q.1

Q.2

[Total No. of Printed Pages 3] **CODE NO:- D-4017**

FACULTY OF SCIENCE

B.Sc (Sem-I) First Year Examination - October – 2015

Computer Science

C-Programming-I-104T- (Revised)

[Time: 1:30 Hours]

[Max.Marks:50]

N.B

"Please check whether you have got the right question paper."

- i) Attempt all questions
- ii) Illustrate your answer with suitable labeled diagram

Q.1

Explain printf() and scanf() functions. Write an algorithm. Draw a flow chart of following program and write a program in C to calculate Addition, subtraction, multiplication and division of any two numbers. 20

OR

Explain nested if condition. Write an algorithm, flow chart and write a program in C to find out maximum number from any three numbers.

Q.2

Explain for loop. Write an algorithm and draw a flow chart of following program. 20
Write a program in C to print following output using for loop

1

2 2

3 3 3

4 4 4 4

5 5 5 5 5

OR

Write short note on any four of the following.

20

- a) Key words and Identifiers.
- b) One dimensional array
- c) Conditional operator
- d) Variable declaration and Initialization
- e) Loops
- f) Logical and relational operator

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Que-display amt from orders14

Querry-

SQL> select amt from orders14;

AMT

1500

2000

1700

9000

1000

Que-display all details of order14 where odate is 04-mar-16

Querry-

SQL> select * from orders14 where odate='04-mar-16';

ONUM ODATE AMT

24 04-MAR-16 9000

Que-display all details from orders14 table where onum is 13

Querry-

SQL> select * from orders14 where onum=23;

ONUM ODATE AMT

23 03-MAR-16 1700

Q.3

Fill in the blanks,

10

- 1) A float type variables is allocated ----- bits in a 16 bit computer
 - a) 16
 - b) 8
 - c) 32
 - d) 64
- 2) A list of items can be given one variable name using only one subscript is called as -----
 - a) one dimensional array
 - b) two dimensional array
 - c) function
 - d) multidimensional array
- 3) A binary operator requires ----- operands.
 - a) Three
 - b) Two
 - c) One
 - d) Zero
- 4) What will be the value of variable iNo is ----- after executing following statement
 $iNo = (3/2*4)+(3/8+3)$
 - a) 9
 - b) 11
 - c) 7
 - d) 6
- 5) A ----- is a data name that may be used to store a data value
 - a) Variable
 - b) Array
 - c) Entity
 - d) Data type
- 6) The symbol '\t' stands for ----- tab
 - a) Vertical
 - b) Horizontal
 - c) Vertical and horizontal
 - d) None of the above
- 7) ----- refer to the name of variable, functions and arrays.
 - a) Identifiers
 - b) Variables
 - c) Keywords
 - d) None of the above

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1 row created.

3 TO:

Que-Display all records in salespeople147

Querry-

SQL> select * from salespeople147;

SNUM	SNAME	SCITY	MOBNO
------	-------	-------	-------

1	anita	obad	9823959812
2	priya	pune	7685237702
3	priti	obad	8372986400
4	jyotsna	sarula	9324872301
5	pooja	bhum	9622200788

Que-display details of fields sname,scity

Querry-

SQL> select sname,scity from salespeople147;

SNAME	SCITY
-------	-------

anita	obad
priya	pune
priti	obad
jyotsna	sarula
pooja	bhum

SUBJECT CODE NO:- W-4002
FACULTY OF SCIENCE
BSc. (C.S) F.Y (Sem. I) Examination March/April 2016
Computer Fundamentals-CS101-T
(Revised)

[me: 1:30 Hours]

[Max. Marks: 50]

N.B "Please check whether you have got the right question paper."

- i) All questions are compulsory
- ii) Illustrate your answer with suitable labeled diagram

- 1 A) What do you mean by CPU? with the help of block diagram discuss the various components of the CPU and its working. Also discuss the factor on which processing capability of the computer depends? 20

OR

- A) Write about the following properties of the magnetic hard disk. OR 20
a) Capacity b) density c) Access time d) disk caching e) seek time and latency time
Discuss the merit and demerits of the magnetic disk and explain in brief about the optical memory devices

2 A) Write about any five input and five output devices in brief

OR

- A) Write short notes on (Any four)

 - i. Digital Audio Tapes
 - ii. Parallel Computers
 - iii. Batch Operating system
 - iv. Four-address instruction
 - v. Function of BIOS
 - vi. Random Access Memory

Multiple Choice Questions

- i. CD-ROM stands for
 - a)Compactable Read only Memory
 - b)Compact Data Read only Memory
 - c)Compactable Disk Read only Memory
 - d)Compact Disk Read only Memory

ii. Which of the following is NOT Secondary Storage device?
a) Tape Drive b) Hard Disk c) Floppy Disk d) Floppy Drive

iii. Second generation computers chief component was
a) Transistors b) Vacuum Tubes c) Integrated Circuit d) Micro-Controller

iv. A computer program that translates one program instructions at a time into machine language is called
a) Interrupt b) CPU c) Interpreter d) Compiler

- 10 of 20
1:30 H
- v. Which of the following are input devices?
a) Screen b) Speaker c) Printer d) Tape
- vi. Which of the following is also known as brain of computer.
a) Control Unit b) Central Processing unit c) Arithmetic and logic unit d) Monitor
- N.B.
- vii. An area of a computer that temporarily hold data writing to be processed is
a) CPU b) Memory c) Storage d) File
- What?
- viii. ALV and control unit jointly known as:
a) RAM b) ROM c) Storage d) PC
- Expla
- ix. Which of the following is NOT a computer language
a) Ms-Excel b) BASIC c) COBOL d) Java
- What?
- x. Computer process data into information by working exclusively with
a) Multimedia b) Word c) Number d) Character

Write:
A
B
C
D
E
F

Fill in
1

2

3

4

5

6

W-2016

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16

SUBJECT CODE NO:- W-4012
FACULTY OF SCIENCE
BSc(C.S)F.Y (Sem. I) Examination March/April 2016
Digital Electronics-CS102-T
(Revised)

[1:30 Hours]

[Max. Marks: 50]

N.B "Please check whether you have got the right question paper."
 i) Attempt all questions
 ii) Illustrate Your answer with suitable diagram

- Q) What is gate? Explain the symbol, T.T and equation of all gates. Why NAND is called universal gate? Explain 20
 OR
- Q) Explain the Sop and Pos used in K-map with suitable example 20
- Q) What is Flip-Flop? Explain the working of RS, D, JK Flip-Flop with symbol and truth table 20
 OR
- Q) Write short note on (Any four) 20
- A. Boolean algebra
 - B. 2:1 multiplexer
 - C. Adder
 - D. Buffer Register
 - E. BCD counter
 - F. 2's complement

Fill in the blank and rewrite the following. 10

- 1) $(1100)_2 = (?)_{10}$
 a) 6 b) 3 c) c d) 12
- 2) $(10)_{10} = (?)_{16}$
 a) 8 b) 10 c) B d) A
- 3) 1's complement of 1010 is _____
 a) 1011 b) 0110 c) 1010 d) 0101
- 4) $(1100)_2 - (0101)_2 = (?)_2$
 a) 0011 b) 0101 c) 0111 d) 1000
- 5) $(1100)_2 + (0011)_2 = (?)_2$
 a) 1111 b) 0000 c) 1001 d) 1010
- 6) $\overline{A + B + C + D} = \underline{\underline{\overline{A} \cdot \overline{B} \cdot \overline{C} \cdot \overline{D}}}$ b) $\overline{A \cdot B \cdot C \cdot D}$ c) $\overline{A} + \overline{B} + \overline{C} + \overline{D}$ d) $\overline{\overline{A} + \overline{B} + \overline{C} + \overline{D}}$

7) $A \cdot \bar{A} = \underline{\hspace{2cm}}$ c) \bar{A} d) A
 a) 1 b) 0

8) Group of flip flop is
 a) Register b) Counter c) Adder d) ALU

9) 3-variable k-map having cells
 a) 9 b) 3 c) 6 d) 8

10) $\overline{1 \oplus 1} = \underline{\hspace{2cm}}$ c) 10 d) 11
 a) 0 b) 1

Draw a

Explain

Explain
locatio

Write a

- a)
- b)
- c)
- d)
- e)
- f)

Fill in t

1)

2)

3)

4)

5)

6)

7)

8)

9)

10

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SUBJECT CODE NO:- W-4022
FACULTY OF SCIENCE
B.Sc.(C.S.) F.Y (Sem. I) Examination March/April 2016
Microprocessor - I-CS103-T
(Revised)

[Time: 1:30 Hours]

[Max. Marks: 50]

- "Please check whether you have got the right question paper."
i) Attempt all questions.
ii) Illustrate your answer with suitable diagram.

Draw and explain internal architecture of 8086 microprocessor. 20

OR

Explain program memory addressing and stack memory addressing mode with diagram.

Explain syntax and purpose of SUB instruction WALP to subtract 2211 H from 4433H. Store result on memory location [2000]. DS=0200H. 20

OR

Write a short note on (any four)

- a) Computer data formats
- b) General purpose registers
- c) ADD and ADC instructions
- d) Data addressing modes
- e) MOV instruction
- f) INC and DEC instructions

Fill in the blank with correct answer and rewrite the following. 10

- 1) 8086 is _____ bit microprocessor.
a) 4 b) 8 c) 16 d) 32
- 2) 2^{16} =_____
a) 64KB b) 64GB c) 1MB d) 64MB.
- 3) 8086 flag register contains _____ active flags.
a) 8 b) 3 c) 6 d) 9.
- 4) Register _____ as an accumulator.
a) CL b) AL c) DL d) BL
- 5) Following is not arithmetic instruction
a) MUL b) DIV c) SUB d) MOV
- 6) BP is _____ bit register.
a) 32 b) 8 c) 16 d) 20
- 7) CS: _____ is base: offset
a) SP b) IP c) BP d) DS
- 8) A group of wires carries address is called _____ bus.
a) DATA b) ADDRESS c) CONTROL d) ALL A,B & C
- 9) 20 bit address line can access _____ memory.
a) 1MB b) 1 GB c) 64 KB d) 64 MB
- 10) The AH and AL pair is called _____
a) DX b) IP c) BP d) AX.

"Please check whether you have got the right question paper."

- i) Attempt all questions.
- ii) Draw flowchart or diagrams wherever necessary.

What is Operator? Enlist all types of operator and write down its precedence while executing any expression 20

OR

Explain If-else condition write an algorithm of following program write a program in C to find out given number is prime number Or not. 20

What is array? How to declare array?

Write an algorithm for following program. Write a program in C to accept 10 numbers from user and store them in an array print the array. 20

OR

Write Short note on any four of the following 20

- a) Primary data type
- b) Switch Statement
- c) Ternary operator in C
- d) For loop
- e) String
- f) Do-while loop

Fill in the blanks

- a) A ternary operator requires ----- operand/s
1) One 2) Four 3) Three 4) Two
- b) The maximum length of a variable in C is----
1) Ten 2) Six 3) Eight 4) Seven
- c) The Symbol '\n' Stands for ----- character
1) New position 2) new line 3) new page 4) none of the above
- d) ----- in C refer to fixed values that do not change during the execution of program
a) Variable b) Constant c) Value d) none of the above
- e) The operator && is an example for --- operator
a) Logical b) conditional c) relational d) arithmetic
- f) Depending upon the position of ----- statement in the loop, a loop may be entry-controlled or

- exit-controlled loop
a) Conditional b) control c) nested d) none of the above
- g) The general form or syntax of printf() statement is -----
a) Printf ("control string, arg1, arg2");
b) Printf("control string", arg1, arg2.....,argn);
c) Print("control string", 'arg1,arg2,...,argn');
d) Print("control string", arg1,arg2.....,argn);
- h) What will be the output of following program.

```
#include<stdio.h>
Void main( )
{
    Int iNo=8;
    Printf("\n %d", iNo++);
    Printf("\n %d", ++iNo)
}
```

a) 9,10 b) 9,9 c) 8,10 d) 10,8
- i) A list of items can be given one variable name using two subscript is called as-----
a) One dimensional array
b) Two dimensional array
c) Function
d) Multidimensional array
- j) A long integer type variable is allocated ----- bits
a) 16 b) 64 c) 32 d) 8

"Please check whether you have got the right question paper."

- N.B i) Attempt all Questions
 ii) Illustrate your answer with suitable labeled diagram

20

- i) Explain the Characteristics of computer and limitations of computer.
 What details are to be specified by instruction to a computer? Explain the term four-address and three address instruction with the help of suitable example

OR

- ii) Write about features and purpose of compiler interpreter and assembler. What is a CDROM? How is data recorded on a CDROM and how is it read?
 iii) Write about the structure of magnetic hard disk with the help of the diagram. Also describe the term related to Magnetic hard disk-capacity density, access time and disk caching. What is the role of Operating System?
 Describe the common feature of operating system.

OR

- iv) Write short note on (any four)
 i) Digital audio tape ii) Light Pen iii) Fifth generation of computers iv) Plasma Display and LCD v) Flow chart
 vi) High level language

10

Multiple choice Questions:-

The process of copying data from a memory location is called

- a) Reading b) Writing c) Controlling d) Booting

Which of the following memory needs refreshing?

- a) SRAM b) DRAM c) ROM d) All of above

- i) Reusable optical storage will typically have the acronym as

- a) CD b) DVD c) ROM d) RW

- ii) The Technology that stores only the essential instructions on a microprocessor chip and thus enhances its speed is referred as

- a) CISC b) RISC c) CD-ROM d) Wi-Fi

Which is not a basic function of computer?

- a) Store Data b) Accept Input c) Process data d) Copy Text

- i) When a computer is switch on, the booting process performs

- a) Integrity test b) Power on Self-Test c) Correct Functioning Test d) Reliability Test

- ii) Which of the following is smallest storage?

- a) Megabyte b) Gigabyte c) Terabyte d) Petabyte

- iii) Which of the following is not a storage medium?

- a) Hard disk b) flash Drive c) DVD d) Scanner

- iv) A computer cannot "boot" if it does not have the

- a) Compiler b) Loader c) Operating System d) Assembler

Where are data and programme stored when the processor uses them

- a) Main Memory b) Secondary Memory c) Disk Memory d) Programme Memory

SUBJECT CODE NO:- W-4011
FACULTY OF SCIENCE
BSc(C.S)F.Y (Sem. I) Examination March/April 2016
Digital Electronics- 302 T
(Old)

[1:30 Hours]

[Max. Marks: 5]

"Please check whether you have got the right question paper."

- N.B i) Attempt all questions.
 ii) Illustrate your answer with suitable diagram.

What is adder? Explain half and full adder with diagram and truth table. 20

OR

What is flip-flop? Explain working of RS, D, JK and T flip-flop with truth table. 20

What is register? Explain working of parallel in parallel out shift register with diagram. 20

OR

Write a short note on (any four) 20

- a) Basic gate
- b) Boolean algebra
- c) Ring counter
- d) Number system
- e) K-map
- f) 4:1 multiplexer

Fill in the blank with correct answer and rewrite the following. 10

- 1) 4 variable K-map having _____ cells
 a) 8 b) 16 c) 4 d) 12.
- 2) $\overline{A \cdot B} = \underline{\quad}$
 a) $\overline{A} + \overline{B}$ b) $\overline{A} \cdot \overline{B}$ c) $A \cdot B$ d) $A + B$
- 3) $A + 1 = \underline{\quad}$
 a) \overline{A} b) 0 c) A d) 1
- 4) $A \cdot \overline{A} = \underline{\quad}$
 a) \overline{A} b) A c) 1 d) 0
- 5) $(E)_{16} = (?)_2$
 a) 1010 b) 1111 c) 0111 d) 1110
- 6) $(1010)_2 - (0101)_2 = (?)_2$
 a) 0110 b) 1001 c) 0101 d) 1010
- 7) Two's complement of $(1000)_2$ is _____
 a) 0111 b) 1000 c) 1001 d) 0110
- 8) $(10)_{16} + (10)_{16} = (?)_{16}$
 a) 20 b) 1010 c) 10 d) A
- 9) _____ is a universal gate.
 a) AND b) OR c) NAND d) EX-OR
- 10) The base of octal number system is _____
 a) 10 b) 0 c) 7 d) 8

a) Describe importance of presentation. 20

Explain in detail features of language of business writing.
OR

Attempt any four. Write short notes on

- i. Speakers appearance and personality for speech.
- ii. Representation objective of communication.
- iii. Communication for education and training.
- iv. Group discussions as a channel of oral communication.
- v. Uses of capitals in English.

Multiple choice questions. 10

1) _____ Communication serves as a record.
a) oral b) written c) verbal d) visual

2) Official discussion between representatives of opposing groups is called as _____.
a) meeting b) interview c) negotiation d) none

3) Oral communication is supported by speakers

- 7) She has drawn _____ beautiful painting.
a) a b) an c) the d) none
- 8) He _____ (go) when I (reach) his home.
(Use appropriate forms of given verbs in the bracket)
- 9) Make objectives from _____.
a) act b) symbol
- 10) He _____ given me a pen.
a) gave b) has c) have d) had

No. of Printed Pages:2

**SUBJECT CODE NO:- W-4041
FACULTY OF SCIENCE
B.Sc.(C.S.)F.Y (Sem. I) Examination March/April 2016
Communication Skill E I 305 ATP
(Old) (Comp. Sci.)**

1:30 Hours]

[Max. Marks: 50]

"Please check whether you have got the right question paper."
i) Attempt all questions.

What is the role of communication in business? Explain in detail the process of communication. 20

OR

Write a detail note on the use of visual aids in the presentation. 20

Explain the terms motivation, counseling, advice, persuasion, warning as they are used on downward communications. 20

OR

Attempt any four of the following (Short notes) 20

- i. Face-to face communication.
- ii. List three situations in your experience where you would prefer to use written communication.
- iii. Dialogues as a communication.
- iv. CS of good communication
- v. Composition of speech
- vi. Use of tense in communication.

Choose correct alternatives. 10

- i. The sender has to choose suitable _____ to send the message.
a) Feedback b) Source c) Channel d) All of these
- ii. Messages moving from senior to subordinate is _____ communication.
a) upward b) downward c) horizontal d) none of these
- iii. Information about how to carry out work is _____.
a) order b) instruction c) motivation d) none of these
- iv. An earnest request for help or support is _____.
a) demand b) request c) appeal d) all of these
- v. A new idea proposed for consideration is _____.
a) complaint b) representation c) suggestion d) all of these

- vi. He is very fond _____ ice-cream.
a) to b) of c) by d) for
- vii. The train _____ (leave), when I (reach) the station.
(a.) Use appropriate form of bracket verbs)
- viii. Make the noun form
i) suggest ii) inform
- ix. Counseling and motivation are objectives of _____ communication.
a) upwards b) downward c) horizontal d) all of above
- x. _____ communication is slower.
a) oral b) written c) non-verbal d) all of these

[Total No. of printed pages: 1]

CODE NO.: - P-4006

FACULTY OF SCIENCES

B.Sc computer science (First year) sem-I Examination

Oct 2014

Digital Electronics (Revised) CS102T

[Max. Mark: 50]

Time : Two Hours]

ALL questions are compulsory.

Perform the following as per direction 10

$$(1110)_2 * (0001)_2 = (?)_2$$

$$(19)_{16} + (DC)_{16} = (?)_{16}$$

$$(1110)_2 - (0110)_2 = (?)_2$$

(1100)₂ Find 2's complement

$$(AB)_{16} / (03)_{16} = (?)_{16}$$

$$(FF)_{16} - (A8)_{16} = (?)_{16}$$

$$(126)_8 = (?)_{10}$$

$$(197)_{10} = (?)_{16}$$

(1100)₂ - (0011)₂ using 1's complement Method

(0111)₂ - (0010)₂ using 2's complement Method

Prove that $\overline{A+B} = \overline{A} \cdot \overline{B}$

Explain hexadecimal number system with example OR

What is gate? Explain symbol, Truth table & equation of logic gates 10

Explain the term 3 variable k-Map

Explain any two laws of Boolean algebra with diagram. OR 5

Explain the working of full adder with logical diagram T.T 10

Explain 4:1 multiplexer with symbol & necessary Truth Table 5

Explain half subtractor with logical symbol & truth table 5 OR

Explain Working of JK flip-flop with necessary diagram & state table 10

Write a note on (any two)

a) Asynchronous counter b) serial-in-parallel-out register

c) BCD to Decimal decoder

SUBJECT CODE NO:- W-4051
FACULTY OF SCIENCE
B.Sc. (C.S.) F.Y (Sem. I) Examination March/April 2016
Mathematical Foundation-CS106-T
(Revised)

e: 1:30 Hours]

[Max. Marks: 50]

- "Please check whether you have got the right question paper."
- i) Attempt all questions.
 - ii) Illustrate your answer with suitable labeled diagram.

- A. State and prove the distribution law left as well as right.

20

Given that among 150 students, 48 study Computer fundamental, 30 study Microprocessor, 68 study database, 22 study CF and database, 15 study Microprocessor and database and 45 do not study any of the subject. Find the number of student studying all three subject and those who study exactly one subject.

OR

- A. Describe the principle of inclusion and exclusion for three set.

20

Solve, if $U = \{n | n \in N, n \leq 15\}$, $A = \{n | n \in N, 6 < n < 14\}$, $B = \{n | n \in N, 7 < n < 12\}$ and $C = \{n | n \in N, 5 < n < 10\}$. Find i) $A \cup B$ ii) $B \cap C$ iii) $\bar{A} - \bar{B}$

- A. With the help of diagrammatic representation, explain isomorphism and subgraph Graphs, 20
Also shows that the union & intersection operation of the graph.

OR

- A. Write short notes on (Any four):

20

- i. Subset and proper subset
- ii. Isolated and Pendant vertex
- iii. Adjacency Matrix
- iv. Types of function
- v. Idempotent law
- vi. Euler Graphs

Multiple choice questions.

10

- i. A graph is a collection of _____.
a) Rows and column b) Vertices and edges c) Equation d) Member elements
- ii. The degree of any vertex of graph is _____.
a) No. of edges incident with vertex
b) No. of vertex in graph
c) No. of vertices adjacent to that vertex
d) No. of edges in graph.

- iii. A graph in which all nodes are of equal degree is known as
a) Complete graph b) Multigraph c) Non regular graph d) Regular graph
- iv. Let A and B be two sets such that $n(B) = 6$, $n(A \cup B) = 9$, $n(A \cap B) = 2$, then $n(A)$ is
a) 7 b) 5 c) 4 d) 3
- v. The total number of elements in the power set of A containing n element is
a) 2^n b) n^2 c) $2n$ d) 2^{n-1}
- vi. Which of the following set is finite
a) $A = \{1, 3, 5, 7, \dots\}$
b) $B = \{101, 102, 103, \dots, 1000\}$
c) $C = \{x | x \in Q, 3 < x < 5\}$
d) $D = \{y | y = 3^n, n \in N\}$
- vii. A loop has _____ number of degree.
a) 0 b) 1 c) 2 d) 3
- viii. An isolated vertices are vertices with degree
a) 0 b) 1 c) 2 d) 3
- Note:- Consider $A = \{1, 2, 3, 4, 5, 7\}$ $B = \{2, 4, 6, 8\}$ solve ix) & x)
- ix. $A - B$ is given by
a) $\{1, 3, 5, 7\}$ b) $\{2\}$ c) $\{6, 8\}$ d) $\{\varnothing\}$
- x. $A \cap B$ is given by
a) $\{1, 3, 5, 7\}$ b) $\{2\}$ c) $\{6, 8\}$ d) $\{1, 2, 3, 4, 5, 6, 7, 8\}$