Bachelor in Computer Application
Society and Technology
Code No.: CACS102
First semester

Full Marks: 30
Pass Marks: 12
Time: 1:30 hrs

Candidates are required to answer the questions in their own words as far as possible.

Group A

Attempts all the questions 50x1=5

1. Family residing at father's place is called
a) Matrilocal b) Neolocal c) Patrilocal d) None

2. Who is the father of sociology?
a) Max Weber b) Emile Durkhim c) Auguste Comte d) Karl Marx

3. The endogamy in Nepalese contest represent marriage within
a) cultural group b) caste group c) race d) class group

4. Which one of the following can be placed under the category of achieved status?
a) Caste b) Race c) Teacher d) Hindu

5. Which was the first stage of society?
a) Hunting & gathering b) Pastoral c) Tribal d) Agraria

Group B

Attempt any THREE questions |3X5 = 15|

6. How sociology is a general science? Discuss with examples.
7. "Family is a primary social institution". Discuss with suitable examples.
8. Define socialization and describe its stages and agents.
9. What are the factors of social and cultural changes? Discuss only three factors.

Group C

Attempt any ONE questions |1X10 = 10|

10. What is national integration? Discuss its major dimensions.
11. Define social research. Explain the steps of social research.

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LUMBINI CITY COLLEGE

BCA I Semester **SUB: MATHEMATIC I** **F.M:30**

Time: 1:30hr

Group A

1. Circle (O) the correct answer. 5×1=5

i)If n(A) =47, n(B) =60 and A ⊂ B then $n(A \cup B)$ = ?

a)20 b) 70 c) 35 d) 60

ii)If f(x)=$\begin{cases} 2x-3 & if\ x \geq 2 \\ x & if\ x < 2 \end{cases}$ then f(1) is equal to

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

iii) The rank of Matrix A=$\begin{bmatrix} 1 & 2 \\ 2 & 4 \end{bmatrix}$

a) 0 b)1 c)2 d) 3

iv)If A and B are any 2×2 matrix then I A+B I=0 implies

a)IAI +IBI=0 b)IAI=0 or IBI=0 c)IAI=0 and IBI=0 d) None of these

V) The value of $\sqrt{-5} \times \sqrt{-3}$

b) -15 b)15 c)15 i d)-$\sqrt{15}$

Group B 5 × 5=25

Attempt any five questions.

2) 32 students play basket ball and 25 students play volleyball.It is found that 20 students play both games. Find the number of students playing at least one game. Also , find total number of students if 13 students play none of these game.

3) Prove that $\begin{vmatrix} 1+x & 1 & 1 \\ 1 & 1+y & 1 \\ 1 & 1 & 1+z \end{vmatrix}$ = xyz $(\frac{1}{x}+\frac{1}{y}+\frac{1}{z}+1)$

4) If x+iy=$\sqrt{\frac{1+i}{1-i}}$, then show that $x^2+y^2=1$

5). Define irrational number. Prove that $\sqrt{2}$ is irrational number.

6) If function f: R → R defined by f(x) =2x+1 and $g: R \rightarrow$ R defined by g (x) = x^2-2. Find the formula for composite function fog and gof and also verify that fog ≠ gof

7) Find domain and range of the function f(x)= $\frac{2x+1}{3-x}$

SET-A

LUMBINI CITY COLLEGE

Mid-term -2081

BCA/1st Semester:
Computer Fundamentals & Applications (CACS101)

Full Marks: 30
Pass Marks: 12
Time : 1.5 hrs

Attempt any 5 questions. **[5*6= 30]**

1. Explain the Anatomy of computer with block diagram.
2. What is System bus? Explain with suitable diagram.
3. What is Operating System? Compare it with utility software and system software.
4. What are different types of printer? Explain them in detail.
5. What is cache memory? Differentiate between DRAM and SRAM.
6. Write Short notes on.
   a. Shell
   b. Open source OS
   c. Trojan horse

Lumbini City College

Bachelor In Computer Applications **F.M=30**
Course Title: ENGLISH I **pass mark: 12**
Code No: CAEN **Time: 1 hour 30**
Semester : I

Group "A"

Multiple choice questions **[5 x 1 = 5]**

1. Please ..... enclosed our current catalogue and price list.
   a. Find b. Look c. receive d. examine
2. A single dot on a computer screen usually a square of a single color is called a .....
   a. Pixel b. bit c. Byte d. grayscale display
3. A visual symbol used in a menu instead of natural language is known as ..... .
   a. Mainframe b. Icon c. microchip d. mouse
4. Our University computer does not have a pascal ..... .
   a. Compiler b. compilation c. compile d. compiled.
5. An item of data such as a number, a name, or an address is called as ..... .
   a. Logical record. B. physical record c. field d. internal schema.

2. Answer the following questions. (Attempt three) : [3 x 5 = 15]

1. What are the limitations of portable computers? Do you think students should be allowed to use them in class?

2. Make a list of jobs suitable for robots and those to be done by humans only. Also show the impact of robotic revolution felt in modern society.

3. Learning programming language is like learning any natural language. The only difference is that you are communicating with machines instead of another person.

4. what are the negative and positive aspects of replacing humans with computers?

Group C

Attempt any one question **[10 x 1 = 10]**

a. Perhaps you manage computing specializing in multimedia hardware and software: Prepare a leaflet to inform companies of the potential benefits of using multimedia.
   OR
   You work in the purchasing department of an industry where a major is being introduced at work. Working under your supervision needs suggestions from you. Write a memo providing your response to their individual responsibilities.

Goodluck

LUMBINI CITY COLLEGE

(Affiliated to Tribhuvan University)

Mid-Term Examination 2081

Full Marks: 30

Time: 1.5 Hrs.

BCA/ First Semester / CACS 105: Digital Logic

Candidates are required to answer the question in their own words as far as practicable.

Group "A"

Multiple choice questions: **(5x1=5)**

1. Operation carried out by a NOT gate are also termed as
   a) Inverting b) Converting c) Reverting d) Reversing
2. Which of the following gates would output 1 when one input is 1 and other input is 0?
   a) OR gate b) AND gate c) NAND gate d) both (a) and (c)
3. The dual of the function x+yz is:
   a) x+yz b) $\bar{x}+\bar{y}\bar{z}$ c) x(y+z) d) $\bar{x}(\bar{y}+\bar{z})$
4. Table used to show possible combination of inputs for an output is said to be
   a) Logic table b) gate table c) circuit table d) truth table
5. Which one of the following logic expression is incorrect?
   a) $1 \oplus 0 = 1$ b) $1 \oplus 1 \oplus 0 = 1$ c) $1 \oplus 1 \oplus 1 = 1$ d) $1 \oplus 1 = 0$

Group "B"

Attempt any FIVE Questions: **[5x5=25]**

6. Subtract: 1010.110 – 101.101 using both 2's complement and 1's complement.
7. Given F = ((X+Y) (Y+Z) +$\overline{Y}\,\overline{Z}$) (XY + $\overline{X}\,\overline{Y}$), construct truth table for this expression and design a circuit.
8. What is universal logic gate? Realize NAND and NOR as a universal logic gates.
9. Prove that :
   a. $\overline{ABC}\ \overline{(A+B+C)} = \bar{A}\bar{B}\bar{C}$ b. $A + \bar{B}C\left(A + \overline{\bar{B}C}\right) = A$
10. If A = 37 and B = -18, represent them in binary and perform B-A and A+B using 2's complement concept.
11. Simplify the following using K-Map.
    F= (ABCD') + (A'B'CD) + (ABC) + (A'B'C'D') + (ACD) + (AB'C'D) and also draw logic diagram using basic gates.

ABC(D+D')
ABC.D+ABCD'

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