Lumbini ICT Campus

Gaindakot, Nawalparasi

Qualifying Test 2075

Bachelor in Computer Application　　　　　　　　　　　　　　Full Marks : 60

Course Title: Society and Technology　　　　　　　　　　　　Pass Marks : 24

Code No: CASO 102　　　　　　　　　　　　　　　　　　　　　Time : 3 hours

Semester: 1ˢᵗ

Group A

Circle (O) the correct option.　　　　　　　　　　　　　　1X10= 10

1. Polyandry is a form of marriage in which
    a. Many women marry one man
    b. Many men are husbands of one woman
    c. One man marries a woman
    d. None of these
2. Research design is
    a. The developing of techniques of data collection
    b. An overall outline of the procedures and operations that includes methods, techniques and tools of the study
    c. The decisions that a researcher makes/takes to verify the data
    d. The way to participate in an ongoing research project
3. Who has described "society as a web of social relationships."?
    a. Mead　　　　b. Ogburn　　　　　c. Leacock　　　　　d.MacIver
4. A role is the ---------- aspect of status.
    a. Counter　b. Dynamic　c. Static　d. Latent
5. Name one macro sociologist from the following.
    a. Simmel　　b. Goffman　c. Weber　d. Durkheim
6. The term sociology is derived from the _____ word socius and _____ word logos.
    a. Latin, Greek　b. Greek, Latin　c. Hebrew, Latin　d. Hebrew, Greek
7. _____ is a socially defined position in a group or society.
    A. Role　b. Interaction　c. Status　　d. Deviance

8. Society symbolizes the network of …….

    a. human relationships

    b. social relationships

    c. orientations

    d. inter-connections

9. "A social group is a system of social interaction." Who defined so?
    a. H.M.Johnson b. Marshal Jones c. Bogardus　d.Simmel

10. We review the relevant literature to know:
    1. What is already known about the topic
    2. What concepts and theories have been applied to the topic
    3. Who are the key contributors to the topic
    4. All of the above

CASO 102 : Society and Technology (BCA I/I)

Group B

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

Attempt any six questions . **6X5= 30**

11. How is sociology similar and different from political science?

12. Define customs? Explain its characteristics.

13. What do you mean by social position? Explain the relation between social role and social position.

14. How is sociology a general science?

15. Examine the consequences of technology in Nepalese society.

16. Explain the major research methods in social science.

17. What are different tools of data collection? Explain them in short.

Group C

Attempt any two question. **2X10=20**

18. Computer professionals have a great role in the social change. Explain how?

19. What are the steps of social research? Explain them.

20. Discuss the major factors of social change in Nepal.

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Bachelor in Computer Application   Full Marks : 60

Course Title: English I   Pass Marks : 24

Code No: CAEN 103   Time : 3 hours

Semester: 1st

Group A

Circle the correct option.   **1X10= 10**

1. ……….means succeed in representing on film.

    a. capture   b. poster   c. emulsion   d. airbrush

2. If you……..your VDU in direct sunlight, it will be damaged.

    a. left   b. have left   c. leave   d. had left

3. The CPU is ……..three parts: the control unit, the arithmetic logic unit and memory.

    a. divided into   b. composed of   c. classified into   d. made up of

4. 'Tot up' means………

    a. fail up   b. add up   c. cut up   d. cope up

5. The study of robots is…….

    a. graphics   b. robotics   c. tactile   d. virtuality

6. Virtual reality comes from………..

    a. Greek philosophy   b. computation   c. mathematical concept   d. programming

7. How much does a welding tool weigh?

    a. about 100 pounds   b. about 85 pounds   c. about one ton   d. about 150 pounds

8. What is the synonym of 'inventive'?

    a. Connective   b. coating   c. figurative   d. creative

9. Something which transmits a disease or virus is…..

    a. An infector   b. a detonator   c. a shield   d. a pixel

10. The word, 'computation' is……….

    a. an adverb   b. an adjective   c. a verb   d. a noun

CAEN 103 : English I (BCA I/I)

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

Attempt any six questions. 6X5= 30
11. What is multiprogramming?
12. Classify the types of robot and introduce them.
13. Why is multimedia similar to graphics?
14. Explain the uses of computer technology in medicine.
15. Is machine translation as accurate as human translation? Answer with reasons.
16. Explain the complexities of multimedia in education.
17. What are the problems of hand-based input/output in Virtual Reality system? Explain them.

Group C
Attempt any two questions. 2X10=20
18. Write an essay on clipboard technology.
19. Do you think students should be allowed to use portable computers in the classroom? Write your arguments for and against it.
20. Read the following passage and answer the questions below:

Computers are machines that can help us in many ways. But they cannot think or do things on their own. Humans have to feed them with information and tell them what to do with it. They cannot come up with any new information. But they can save much time and work. For example, all the information and the office files can be stored in a computer's "memory". If a clerk were to trace any information from a particular file, the computer would only take seconds to find it. It would take a clerk days or even weeks to go through every file if no computers were used.

The first computers were huge and costly. They filled up almost the whole floor of large offices. Later, because of the usefulness and demand for computers in business, scientists soon found ways to produce cheaper and smaller computers. They invented chips, which made it possible to store more information in less space.

Today, computers are not only cheaper, but also more complex. They can just be placed on top of an ordinary writing table. They can even be carried from place to place easily. Companies do not only use computers in offices, but families who can afford them also use them at home.

Robots, on the other hand, are not mechanical people. They are only moving parts controlled by a computer. A robot can do the same work for twenty-four hours, and yet, it does not complain or get tired. In the United States robots are computers that tell them where to guard and what to do. These robots are programmed to listen for certain noises and signals for help in case of trouble or danger.

In Japan and in some places in America, robots are used in factories to assemble cars. As computers become more common businesses and factories, people fear the today computers and computer-controlled robots will put human workers out of work.

Questions:
a. Why do humans have to feed the computers with information and tell them what to do?
b. Why did the first computers fill up almost the whole floor?
c. What are robots? How do they work?
d. What are people fear on and why?
e. Why are computers more complex?

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Qualifying Test 2075

Bachelor in Computer Application   Full Marks : 60
Course Title: Digital Logic   Pass Marks : 24
Code No: CACS 105   Time : 3 hours
Semester: 1st   Set A

Group: A
Brief answer question: 10*1=10

1) Which logic gate has different output when two inputs are different?

2) On what basis counter is categorized?

3) Differentiate between ROM and PLA.

4) Convert 10011.0110_2 into $(?)_{10}$.

5) Define logic diagram.

6) Compare any two basic gates using truth table

7) Minimize $Z'XY+ZX'Y$ to minimum terms using Boolean expression.

8) What is strength of Johnson counter over ring counter

9) Why BCD counter is defined as truncated counter?

10) Express POC in ASCII code.

CACS 105 : Digital Logic (BCA I/I)   **Set A**

Group: B

Short answer questions: (any six)   **5*6=30**

11) Design mod-6 counter with state diagram and timing diagram.

12) Design full subtractor circuit .

13) Differentiate between RS and JK flip flop along with its excitation table, characteristics table and logic diagram

14) Describe the store and retrieval process of four bit parallel in serial out register with circuit diagram and timing diagram.

15) A) if $A=17_{10}$ and $B=8_{10}$ compare B-A and A+B by converting them to binary system.

   B) Verify any one De Mogran law for three variables using truth table.

16) What is university logic gate? Realize using NAND gate.

17) Define encoder. Draw logic diagram and truth table of octal to binary encoder.

Group: C

Long answer question: (Any two)   **2*10=20**

18) Write difference between PAL and PLA. Design a PLA circuit wit given function:

   $F1(A,B,C)=\sum(3,4,5)$

   $F2(A,B,C)= \sum(0,4,6,7)$

19) Define JK flip flop. Design a JK flip flop logic diagram along with its excitable table.

20) Define edge triggering flip flop along with its circuit diagram, state diagram and timing diagram

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Bachelor in Computer Application   Full Marks : 60
Course Title: Digital Logic   Pass Marks : 24
Code No: CACS 105   Time : 3 hours
Semester: 1st   Set B

Group: A
Brief answer question: 10*1=10

1) Which logic gate has different output when two inputs are same?

2) On what basis counter is categorized?

3) Differentiate between EPROM and PROM.

4) Convert 1011.010_2 into $(?)_{10}$.

5) Define state diagram.

6) Compare any two derived gates using truth table

7) Minimize A'BC+AB'C to minimum terms using Boolean expression.

8) What is strength of Johnson counter over ring counter

9) Why BCD counter is defined as truncated counter?

10) Express LOC in ASCII code.

Group: B

Short answer questions: (any six)   **5*6=30**

11) Design mod-5 counter with state diagram and timing diagram.

12) Design full subtractor circuit .

13) Differentiate between RS and D flip flop along with its excitation table, characteristics table and logic diagram

14) Describe the store and retrieval process of four bit serial in serial out register with circuit diagram and timing diagram.

15) A) if A=8_{10} and B=13_{10} compare B-A and A+B by converting them to binary system.

   B) Verify any one De Mogran law for three variables using truth table.

16) What is university logic gate? Realize using NOR gate.

17) Define decoder. Draw logic diagram and truth table of binary to octal decoder.

Group: C

Long answer question: (Any two)   **2*10=20**

18) Write difference between PAL and PLA. Design a PLA circuit wit given function:

   F1(A,B,C)=$\sum$(2,3,4,6)

   F2(A,B,C)= $\sum$(0,5,6,7)

19) Define T flip flop. Design a T flip flop logic diagram along with its excitable table.

20) Define master slave flip flop along with its circuit diagram, state diagram and timing diagram

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