Nalanda Open University
Main Examination-2007

N-B.C.A-II(CS-05)

Time: 3.00 Hrs. **Full Marks: 75**

Answer any five questions.

1. Discuss the activities of System Development Life Cycle.
2. What do you mean by Systems Alalyst? Write the job functions of a System Analyst.
3. What is feasibility of a project? Mentain seven types of feasibility.
4. What is data dictionary? Write the rules governing formation of data disctionary.
5. Write short notes on:-
   (a) MIS
   (b) DSS
   (c) SQL
   (d) KBS
6. Write the main parts of System design process. What is a Prototype? Write the benefits of prototyping.
7. What is a database? Write the advantages of a database.
8. What is bendmark testing? Write down the criteria for software selection.
9. What is System testing? Write the steps of system testing.
10. Write in detail about software design and documentation tools.

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NALANDA OPEN UNIVERSITY
Main examination, 2007

B.C.A., Part II

Time: **2.00 Hrs.** **N-BCA(CS-63)**
Full Marks: 60

Answer **Any Five** Questions.

1. What is Programming? Write about System Programming Language and Application Programming Language? Mention the disadvantages of Machine Language.

2. Write short notes on any three of the following:
   (a) Variable
   (b) Translator
   (c) API
   (d) Buffering

3. What is a Compiler? Write about boot strapping and assembly language coding.

4. What is GUI? Write in details the major benefits of windows.

5. Define Operating System. Write about multi-tasking operating system.

6. What is Semaphore? What are its drawbacks?

7. What is paging? Discuss single process monitor.

8. What is Disk scheduling? Write advantages and disadvantages of Indexed allocation method.

9. What is Source Code Control System? Why it is required?

10. What is an Array? Write about one dimensional and two dimensional array with examples.

Nalanda Open University
Main Examination-2007

N-B.C.A-II (CS-64)
Time: 3.00 Hrs. **Full Marks: 75**

Answer any five questions.

1. Explain the purpose of Cache Memory. What is Memory Hierarchy? Expalin different types of Mapping.
2. What is DMA? Explain the difference between DMA and I/o Processor. What is cycle stealing?
3. Explain various Addressing Schemes with example. Also explain Instruction formats with example.
4. What is Associative Memory? Explain with a figure. Also explain various optical Memories.
5. Explain various Registers used in CPU. Explain the basic structure of CPU with Register using block Diagram.
6. Explain the structure of Control Unit. Also explain various micro operations.
7. Write Assembly language Program to add two numbers and store the carry in third variable.
8. Explain the process of Instruction Exemption. Explain ALU organization with block Diagram.
9. What is Interrupt? What are different types of Interrupt. Explain Instruction cycle and Interrupt cycle.
10. Explain the following:-
    (a) Multiplexer
    (b) Programmable Logic Array
    (c) Decoders
    (d) Address
11. What is Rs-flip flop, Jk flipflop and D-flip-flop. Map the function having four variables in a Karnangh's map. The function is f (A, B, C, D) = $\sum$ (2, 6, 10, 14)

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Nalanda Open University
Main Examination-2007

N-B.C.A-FST

Time: 3.00 Hrs. **Full Marks: 75**

Answer any five questions.
किन्हीं पाँच प्रश्नों के उत्तर दीजिए ।

1. Examine the social functions of Science
विज्ञान के सामाजिक कार्यों का परीक्षण कीजिए ।
2. Delineate the features of Mathematics as developed by the Jains.
जैनों द्वारा विकसित गणित की विशेषताओं को पंक्तिबद्ध कीजिए ।
3. What do you mean by the Renaissance? Discuss the development of Science during the Renaissance.
पुनर्जागरण से आप क्या समझते हैं? पुनर्जागरण काल में विज्ञान के विकास का विवेचन कीजिए ।
4. Examine the impact of the Indian Freedom Movement on the Development of Science.
विज्ञान के विकास में भारतीय स्वतंत्रता आन्दोलन के प्रभाव का परीक्षण कीजिए ।
5. What is Hypothesis? Explain its importance.
उपकल्पना क्या है? इसके महत्व की व्याख्या कीजिए ।
6. Explain Kepler's Laws of Planetary Motion.
नक्षत्रीय गति से सम्बन्धित केपलर के नियमों की व्याख्या कीजिए ।
7. Explain Photosynthesis.
प्रकाश संश्लेषण की व्याख्या कीजिए ।
8. Discuss the causes and remedies of Water pollution.
जल प्रदूषण के कारणों एवं समाधान की विवेचना कीजिए ।
9. Write short notes on any two of the following :
अधोलिखित में से किन्हीं दो पर संक्षिप्त टिप्पणियाँ लिखिए :

(a) Non-conventional source of energy.
(अ) ऊर्जा के गैर पारम्परिक स्त्रोत ।

(b) Importance of Biotechnology in Agriculture.
(ब) कृषि में बायोटेक्नोलॉजी का महत्व ।

(c) Essential Nutrients.
(स) आवश्यक पोषकारक

(d) Balance Diet.
(द) संतुलित आहार

(e) Peripheral Nervous systems (PNS)
(इ) पेरिफेरल नरवस प्रणाली

or

Write short notes on any two of the following :
अधोलिखित में से किन्हीं दो पर संक्षिप्त टिप्पणियाँ लिखिए :

(a) The Technology Policy of the Govt of India.
(अ) भारत सरकार की टेक्नोलॉजी नीति

(b) Application of Optical Fibers.
(ब) ऑपटिकल फाईबर का प्रयोग

(c) Working of a personal Computers
(स) पर्सनल कम्प्यूटर की कार्यप्रणाली

(d) New international economic order.
(द) नयी अन्तर्राष्ट्रीय आर्थिक व्यवस्था

(e) http.
(द) एच0 टी0 टी0 पी0

10. Match the computer components given in column 1 with their characteristics/ functions listed in column 2.

i)	Computer Hardware	a)	Transfers the data from the user to the memory of ALU.
ii)	Input	b)	is made up of a set of programme
iii)	Memory	c)	displays, records or prints information.
iv)	Control Unit	d)	comprises of all magnetic tapes, printers and the electronic circuitry.
v)	Arithmetic and Logic Unit	e)	is responsible for the storage of data.
vi)	Output	f)	like a traffic officer, it directs the flow of instructions between various units.
vii)	Computer Software	g)	compares two numbers, add, subtracts, multiplies.