

NATIONAL BUSINESS COLLEGE

ASSIGNMENT

BCA 3rd YEAR

ARTIFICIAL INTELLIGENCE

F.M- 100

Last Date to Submit: - 17th March

Answer all the questions: -

(1) What are the various areas where Artificial intelligence can be used?

(2) While creating Bayesian network what is the consequences between a node and predecessors.

(3) What is FOPL? Explain its role in Artificial intelligence.

(4) Describe the following in details:

(a) Expert system (b) Depth first search

(c) Semantic network

(5) (a) What do you understand by Natural language processing? Discuss with details various steps involved in NLP.

(b) What is state space search? Give any example of a game which happens to be a problem of state space search.

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COMPILER DESIGN

F.M- 100

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Answer all the questions: -

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(1) How many phases a compiler normally consists of? Illustrate each phase with a suitable example.

(2) What is intermediate code in compilers? Why it is needed in compiler design? Discuss different types of intermediate code generated by intermediate code generator phase.

(3) What is DAG? What is the use of DAG in compiler construction? Construct a DAG for the following statements:

$$Z=X-Y+X*Y*U-V/W+X+V$$

(4) Describe the following in details:

(a) Data activation record (b) Peephole optimization (c) Symbol Table

(5) (a) Define Lex and Lex specification. How Lexical Analyzer is constructed using Lex?

(b) What are the strategies apply in storage allocations?

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COMPUTER GRAPHICS

F.M- 100

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Answer all the questions: -

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- (1) Describe how a 3D object is presented on the screen using perspective projection.
- (2) Compare parallel and perspective projection with reference to practical use only.
- (3) What is computer graphics? Write the important application of computer graphics.
- (4) What is Translation and Shearing in 2D-transformation? Explain with examples.
- (5) What are windowing and Clipping? Explain.

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JAVA PROGRAMMING

F.M- 100

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Answer all the questions: -

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- (1) Explain Single level and Multilevel inheritance with a suitable example?
- (2) Explain For loop in java? Write a program to check a palindrome number.
- (3) What do you mean by Data type? Explain different Data type available in java.
- (4) Describe the following in details:
(b) Swing (b) Exception (c) TCP/IP Protocol
- (5) (a) What is Enum type? Explain with the help of an example.
(b) What is Inheritance? How it is different from Aggregation.

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BCA 3rd YEAR

SOFTWARE ENGINEERING

F.M- 100

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Answer all the questions: -

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- (1) Draw and explain various phases of prototype model? What are its advantages.
- (2) What is software maintenance? What are the various categories of s/w maintenance? What are the problems associated with s/w maintenance?
- (3) Define Coupling and Cohesion. Explain their various types.
- (4) Describe the following in details:
 - (a) Unifying Model
 - (b) Alpha and Beta Testing
 - (c) COCOMO Model
- (5) What are the differences between Generic software product development and Custom software development.