(DMCA301)

ASSIGNMENT 1
MCA DEGREE EXAMINATION, MAY - 2018
Third Year
Artificial Intelligence

Maximum Marks 30
Answer all questions

Q1) Discuss problem characteristics with suitable example.

Q2) What is heuristic function of best first search algorithm? Illustrate best first search algorithm with example.

Q3) Explain about various approaches to representing the knowledge.

Q4) What is script? Describe different components of script. Write a script to when you writing the examination.

Q5) Discuss expert system architecture in detail and also list down different expert systems.

Q6) What is Turing Test? How is it useful to measure the intelligence of a machine?

Q7) Differentiate DFS and BFS.

Q8) Briefly explain about AO* algorithm.

Q9) Write about unification algorithm with suitable example.

(DMCA301)

ASSIGNMENT 2
MCA DEGREE EXAMINATION, MAY - 2018
Third Year
Artificial Intelligence

Maximum Marks 30
Answer all questions

Q10) Explain about dependency directed back tracking.

Q11) How are Baye's rule used to combine evidence in simple case?

Q12) What is frame? How to build frame from knowledge?

Q13) Briefly explain common sense reasoning with example.

Q14) Define Al.

Q15) Define state space.

Q16) Define natural deduction.

Q17) What is semantic net.

Q18) Differentiate forward and backward reasoning.

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(DMCA302)

Q1) Explain in detail the sub key generation and round function of DES algorithm in detail.

Q2) Discuss the Diffie-Hellman Key Exchange mechanism with an example and its pros and cons.

Q3) What are Prime and Relatively Prime Numbers? Explain any two methods for testing prime numbers.

Q4) Explain the steps in message digest generation in Secure Hash Algorithm in detail.

Q5) Write about worms and virus in detail.

Q6) Draw the model form network security.

Q7) Differentiate bloc cipher and stream cipher.

Q8) Describe different IPSec services.

Q9) What are the different classes of intruders?

ASSIGNMENT 2
M.C.A. DEGREE EXAMINATION, MAY - 2018
Third Year
CRYPTOGRAPHY AND NETWORK SECURITY
Maximum Marks 30
Answer all questions

Q10) Write about Fermit's theorem.

Q11) Briefly explain about RSA cryptosystem.

Q12) Describe the fields of SSL record protocol header.

Q13) Briefly explain different types of firewalls.

Q14) How many rounds are there is DES?

Q15) Define mono alphabetic cipher.

Q16) Define symmetric key.

Q17) Define PGP.

Q18) What is digital signature?

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(DMCA303)

Q1) Explain about RT-level custom single-purpose processor design.

Q2) Explain about Application-specific instruction-set processors.

Q3) Explain about EDORAM and RDRAM.

Q4) Explain about various types of Serial Protocols.

Q5) Explain about program-state machine model.

Q6) Explain about Application-specific processors.

Q7) Explain about RT-level combinational components.

Q8) Explain about pulse width modulator.

Q9) Explain about Real-time clocks.

(DMCA303)

ASSIGNMENT 2
MCA DEGREE EXAMINATION, MAY - 2018
Third Year
Embedded Systems

Maximum Marks 30
Answer all questions

Q10) Explain about DRAM integration problem.

Q11) Explain about OTP ROM.

Q12) Explain about User's perspective of digital camera.

Q13) Explain about Synchronization among processes.

Q14) What is design productivity gap?

Q15) How to select a microprocessor for embedded systems?

Q16) Explain Cache mapping techniques.

Q17) Explain about Bluetooth.

Q18) What is HCFSM?

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(DMCA304)

ASSIGNMENT 1
M.C.A. DEGREE EXAMINATION, MAY - 2018
Third Year
Data Mining Techniques

Maximum Marks 30
Answer all questions

Q1) Explain Data Reduction using factor analysis & principle components analysis.

Q2) Define Data Mining Algorithms. Illustrate the CART Algorithm.

Q3) Define score functions. How are they used for Predictive & Descriptive Models?

Q4) Explain k-nearest Neighbour Methods.

Q5) Explain Massive Data sets, Data Management & Data Mining.

Q6) Explain the Distance Measures.

Q7) Explain Data Quality for collection of Data.

Q8) Distinguish between parametric & non-parametric models.

Q9) Explain model structure for Prediction.

(DMCA304)

ASSIGNMENT 2
M.C.A. DEGREE EXAMINATION, MAY - 2018
Third Year
Data Mining Techniques
Maximum Marks 30
Answer all questions

Q10) Narrate the steps involved in simple Greedy Search Algorithm.

Q11) Briefly discuss about Probabilistic Model based clustering using mixture model.

Q12) Explain Hash Indices.

Q13) Explain Manipulating tables.

Q14) Define snapping.

Q15) What is Data mart?

Q16) What is OLAP?

Q17) Define patterns.

Q18) What is Discretization?

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(DMCA305)

ASSIGNMENT 1
M.C.A. DEGREE EXAMINATION, MAY – 2018
Third Year
SYSTEMS AUDITING

Maximum Marks 30
Answer all questions

Q1) What are the objectives of information systems auditing? Explain.

Q2) What is meant by threat? Identify various internal and external sources of threats to information system assets.

Q3) Explain about external controls that should be established in an organization?

Q4) Discuss the functional capabilities of generalized audit software?

Q5) Explain the measures of data integrity and give an example where each measure would be used?

Q6) Why information controls are used? Give justification?

Q7) Explain about the control metrics?

Q8) How output controls are implemented?

Q9) Discuss the factors, which make an effective manager.

(DMCA305)

ASSIGNMENT 2
M.C.A. DEGREE EXAMINATION, MAY – 2018
Third Year
SYSTEMS AUDITING

Maximum Marks 30
Answer all questions

Q1) Explain about communication controls in detail?

Q2) Describe the audit risks?

Q3) What are the different approaches to the study of Management?

Q4) Write the steps involved in evaluation of system effectiveness?

Q5) What are the limitations of systems audit?

Q6) What is the importance of programming management control?

Q7) Write advantages and disadvantages of database controls?

Q8) What is need of code comparison?

Q9) What is the purpose of data integrity?

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