

(DMCA301)

ASSIGNMENT- 1
M.C.A.DEGREE EXAMINATION, DEC- 2017
(ThirdYear)
ARTIFICIAL INTELLIGENCE
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)** Discuss various approaches to knowledge representation.
- Q2)** Explain the characteristics of a problem with a suitable example.
- Q3)** Explain resolution algorithm for predicate logic.
- Q4)** Describe the architecture of expert systems. Also explain the characteristic features.
- Q5)** Explain rule based system architecture.
- Q6)** Explain steepest-ascent Hill climbing algorithm.
- Q7)** What are the applications of AI?
- Q8)** Explain production rules for water-jug problem.
- Q9)** Explain Bayesian networks.

(DMCA301)

ASSIGNMENT- 2
M.C.A.DEGREE EXAMINATION, DEC- 2017
(ThirdYear)
ARTIFICIAL INTELLIGENCE
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)* Write about predicate logic.
- Q2)* Write a short note on Dempster-shafer theory.
- Q3)* Write a short note on heuristic search techniques.
- Q4)* Explain about non-monotonic reasoning problem.
- Q5)* Define Frame.
- Q6)* Define Script.
- Q7)* What is backward reasoning?
- Q8)* What is inheritable knowledge?
- Q9)* What is Turing test?

(DMCA302)

ASSIGNMENT- 1
M.C.A. DEGREE EXAMINATION, DEC - 2017
(Third Year)
CRYPTOGRAPHY AND NETWORK SECURITY
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)** State the ISO security architecture and elaborate the different types of attacks.
- Q2)** Explain AES algorithm.
- Q3)** Explain Chinese Remainder Theorem and Fermat's Theorem.
- Q4)** Explain RSA algorithm. Give an example and also state its security.
- Q5)** Explain DSS algorithm and its security.
- Q6)** Explain Caesar cipher and generate cipher text for the plain text "we are identified"
let $k = 3$.
- Q7)** Explain linear and differential cryptanalysis.
- Q8)** Explain RC4 algorithm.
- Q9)** Explain Diffie-Hellman key exchange algorithm.

(DMCA302)

ASSIGNMENT- 2
M.C.A. DEGREE EXAMINATION, DEC - 2017
(Third Year)
CRYPTOGRAPHY AND NETWORK SECURITY
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)** Explain RC5 algorithm.
- Q2)** Differentiate between conventional encryption and public-key encryption.
- Q3)** State the requirements for cryptographic hash functions.
- Q4)** Explain about distributed intrusion detection system.
- Q5)** Define Nonce.
- Q6)** What is a block cipher?
- Q7)** What is a message digest?
- Q8)** What is confidentiality?
- Q9)** What is KDC?

(DMCA303)

ASSIGNMENT- 1
M.C.A. DEGREE EXAMINATION, DEC - 2017
(Third Year)
EMBEDDED SYSTEMS
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)** What is embedded computer system? List the characteristics of embedded computing applications.
- Q2)** Illustrate different types of memories with neat diagram.
- Q3)** Describe the procedure of designing a general purpose processor.
- Q4)** Explain the merits and de-merits of transmission media.
- Q5)** Write a short note on : finite-state machines, concurrent processes.
- Q6)** Write a note on IC technology.
- Q7)** Explain Flip-flops.
- Q8)** Write about modulators.
- Q9)** Briefly explain arbitration.

(DMCA303)

ASSIGNMENT- 2
M.C.A. DEGREE EXAMINATION, DEC - 2017
(Third Year)
EMBEDDED SYSTEMS
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)** State the advantages of flash memory.
- Q2)** State the pros and cons of using memory mapped I/O.
- Q3)** Explain the internal structure of a keyboard with a neat diagram.
- Q4)** Explain State machine model.
- Q5)** Define Interrupt.
- Q6)** What is Design gap?
- Q7)** Blue tooth.
- Q8)** UART.
- Q9)** Real-time System.

(DMCA304)

ASSIGNMENT- 1
M.C.A. DEGREE EXAMINATION, DEC - 2017
(Third Year)
DATA MINING TECHNIQUES
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)** Briefly discuss about architecture of a Data Mining System.
- Q2)** Explain descriptive data summarization model.
- Q3)** Discuss in detail about Bayesian classification.
- Q4)** Explain Tree model and nearest neighbor model.
- Q5)** Explain any 2 algorithms for searching models and patterns.
- Q6)** What is data cleaning? Explain.
- Q7)** Explain Apriori algorithm for association rule mining.
- Q8)** Explain EM algorithm.
- Q9)** Explain about Tree classifiers.

(DMCA304)

ASSIGNMENT- 2
M.C.A. DEGREE EXAMINATION, DEC - 2017
(Third Year)
DATA MINING TECHNIQUES
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)* What is cluster analysis? Given an example.
- Q2)* Briefly explain supervised learning.
- Q3)* Explain about tree classifiers.
- Q4)* Explain the strategy of nearest neighbor methods in clustering.
- Q5)* What is Data Mart?
- Q6)* Explain prediction.
- Q7)* Write about missing data.
- Q8)* What is snooping?
- Q9)* Define Regression.

(DMCA305)

ASSIGNMENT- 1
M.C.A. DEGREE EXAMINATION, DEC - 2017
(Third Year)
SYSTEMS AUDITING
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)* Explain information systems audit.
- Q2)* Explain security management controls.
- Q3)* Explain concurrent auditing techniques.
- Q4)* State any 5 controls used in application control frame work.
- Q5)* Explain the functional capabilities of generalized audit software.
- Q6)* Explain the system of authorization.
- Q7)* Explain various types of data coding errors.
- Q8)* Define workload model. Explain its types.
- Q9)* What is evidence collection? Explain in detail.

(DMCA305)

ASSIGNMENT- 2
M.C.A. DEGREE EXAMINATION, DEC - 2017
(Third Year)
SYSTEMS AUDITING
MAXIMUM MARKS-30
Answer ALL Questions

- Q1)* Explain the contribution of interviews and questionnaires to audit.
- Q2)* Explain security threats.
- Q3)* State the performance of measurement tools.
- Q4)* Discuss the strengths of control flowcharts.
- Q5)* Audit risks.
- Q6)* Security program.
- Q7)* Throughput.
- Q8)* Concurrent auditing.
- Q9)* Quality assurance management controls.