VII H Sem

Symbol of Secularism & National Integration

ANJUMAN-I-ISLAM'S
KALSEKAR TECHNICAL CAMPUS, NEW PANVEL 2016-17
School of Engineering & Technology

Subject: ERP & SCM | **Date:**
Marks:20 | **Duration:** 01 Hr/s
Class: BE Sem-VII | **Branch: Computer Engg**

Instructions: Figure to the right indicates full marks.

Q. 1. Attempt any five out of six (2 marks Each) **10 Marks**
State True or False (i to iv)

i) Business model is defined for constructing the building for business
ii) Pre-Implementation task involves talking with the key employees in an organization
iii) An Enterprise is a shop, consists of buying and selling
iv) The length of ERP implement life cycle is 12 months.
v) What is an Enterprise?
vi) What is business Intelligence?

Q. 2 (a) What are the ERP related technologies? **05 Marks**

OR

Q. 2(b) What is Business Process Re-Engineering (BPR) **05 Marks**

Q. 3 (a) Write down steps with 2 lines of explanation for ERP implementation **05 Marks**

OR

Q. 3(b) What are different modules of ERP? Explain Finance Module. **05 Marks**

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Subject: Artificial Intelligence (AI) **Marks: 20**

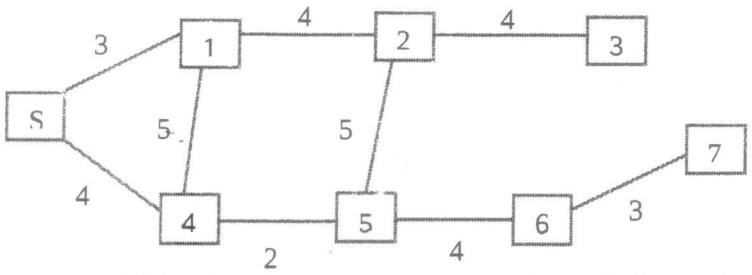
Test: I (02/09/16) **Duration: 1 Hr**

Class: BECO **Branch: CO**

Instructions: Assume suitable data wherever required.

1) Attempt any five out of six: (2 marks each) 10
   a. Define Artificial Intelligence.
   b. Define Rationality and Rational Agent.
   c. Give PEAS description for Robot Soccer player.
   d. Automated Taxi driving problem has continuous and dynamic environment. State whether true or false with justification.
   e. Uninformed Search Algorithms makes use of heuristic function. State whether true or false with justification.
   f. Uniform Cost Search is Informed Search technique. State whether true or false with justification.

2) Attempt any one of the following : 5
   a. Compare and contrast problem solving agent and planning agent.
   b. Consider a graph given below. Assume that the initial state is S and the goal state is 7. Find a path from initial state to goal state using A* algorithm. Also report the solution cost.



3) Attempt any one of the following : 5
   a. Explain Best First Search with an example.
   b. What are the basic building blocks of Learning agent, explain in detail with diagram.

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Subject: CSS **Date:**
Marks: 20 Marks **Duration: 1 Hr/s**
Class: BE **Branch: CO**

Instructions:
1. Attending Q1. is compulsory.
2. Any one from Q2 or Q3.

Q1. Attempt any 5. [2 X 10]

a) Define the following
   i. Substitution Cipher
   ii. Poly-alphabetic Cipher

b) What are the goals of security?

c) What is mean by Threats, Controls and Vulnerabilities?

d) Differentiate between Active and Passive Attack.

e) Explain keyed and keyless transposition ciphers.

f) What the term mean by confusion and Diffusion.

g) What is the key size, number of rounds perform in DES. Explain the advantages and disadvantages of DES.

Q2. [5 X 2]

a) Encrypt the message "PGP can be used to send messages confidentially" using playfair cipher with keyword "domestic".

b) Find keys d and e for RSA cryptosystem where p =7 and q = 11 and also find c for message M=5

Q3. [5 X 2]

a) User A and B use the Diffie-Hellman key exchange technique with a common prime q = 11 and primitive root α = 2.
   i. If user A has private key X_A = 5, what is A's public key Y_A?
   ii. If user B has private key X_B = 5, what is A's public key Y_B?
   iii. What is the shared secret key?

b) Encrypt the message "Keyword" using Hill Cipher with key $\begin{pmatrix} 9 & 4 \\ 5 & 7 \end{pmatrix}$

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Subject: DIGITAL SIGNAL PROCESSING (DSP) **Date: __/ 09 / 2016**
Marks: 20 MARKS **Duration: 01 Hr**
Class: BE - COMPUTERS **Branch: COMPUTER**

Q.1 - ATTEMPT ANY 5 OUT OF 6 QUESTIONS **[10MARKS]**

STATE TRUE OR FALSE WITH JUSTIFICATION

a) For a system to be Invariant it must follow the rule of Bounded Input and Bounded Output.

b) Discrete Fourier transform (DFT) is a slower algorithm when compared to Fast Fourier Transform(FFT)

c) ADC is not an essential component of a DSP System.

d) The following is not an output of Auto correlation {1, 2, 3, 4, 5, 6, 7, 8}.

e) The sequence x(n) = {1,2,3,4} advanced by 2 samples is x={1,2,3,4,0,0}.

f) The DFT output of the following sequence is Correct :

Input sequence - x(n) = { 1 , 2 , 3 , 4}

DFT Output X(K) = {14 , -2+2j, -2, -2+2j}

Q.2 - ATTEMPT ANY 1 OUT OF 2 QUESTIONS **[05MARKS]**

a) Compute Linear Convolution of the following two sequences using Overlap Add method in time domain.

x (n) = { 1 , 2, 3 , 4, 5, 6, 7, 8 } h (n) = { 1, 0, 1 }

b) Write a detailed note on DSP Processor TMS32054X series

Q.3 - ATTEMPT ANY 1 OUT OF 2 QUESTIONS **[05MARKS]**

a) Find the Circular Convolution of two sequences using two methods.

x1 (n) = { 1 , 2, 3, 4 } x2 (n) = { 1 , 2, 1}

b) Explain any five DFT properties.

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