paper code : P119-131(T1)

Model Paper ~~Solution~~ Scheme

OCTOBER 2019 / INSEM (T1)

F. Y. M. TECH. (COMPUTER ENGG.) (SEMESTER - I)

COURSE NAME: Mathematical Foundation of Computer Science

COURSE CODE: CSPA11181

(PATTERN 2018:R1)

Q.1) a)	1) What is Bi-Partite Graph.....[1] Explanation with example.....[2] II) What is Isomorphic Graph.....[1] Explanation with example.....[2]		[6]
b)	Define subgraph. Determine whether H=H' = (V',E') is subgraph of G where : I) V' = {A,B,F} and E' = {(A,B), (A,F)} II) V' = {B,C,D} and E' = {(B,C), (B,D)}		[4]
	OR		
Q.2) a)	Explanation of interconnection network.....[2] What is Benes network.....[1] Working of Benes network works..... [2] its applications.....[1]		[6]
b)	Explanation of Euler's formula.....[2] Euler's formula states that for any real number x:.....[2] $(e)^{xi}$=cos xi +sin x where e is the base of the natural logarithm		[4]
Q.3 a)	Probability mass function.....[2] Explanation .....[1] probability density function.....[2] Explanation.....[1]		[6]
b)	Difference between discrete and continuous random variables. (Min. 4 points ..each carry 1 mark)		[4]
	OR		
Q.4 a)	Definition of reliability and failure rate.....[2] Relation of reliability and failure rate.....[2] How to calculate failure rate using reliability..... [2]		[6]
b)	Explanation of Random variables.....[2] functions of normal random variable.....[2]		[4]