

GANDHI P.R. COLLEGE, BHOPAL

Assignment-2020-21

M.Sc.-I (New)(CS) SEM

Discrete Mathematics structure

Paper-I

Q.1 Express the following formula into disjunctive normal form:

$$\sim (p \vee q) \leftrightarrow (p \wedge q)$$

Q.2 If R and R' are relations in a set A show that $R \cap R'$ is also an equivalence relation A where R and R' are equivalence.

Q.3 Let G be the set of the non-zero real numbers and let.
 $a * b = ab/2$ then show that $(G, *)$ is an abelian group.

Q.4 Prove that every chain is a distributive lattice.

Q5 Prove that the maximum no of edges in a simple graph with n vertices is $n(n-1)/2$

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Programming skills with c++

Paper-II

- Q.1 Differentiate procedure oriented and object oriented programming.
- Q.2 Compare call by value and call by reference function call in C++.
- Q.3 writes short notes on following –
a-virtual Base class
b- Hybrid Inheritance
- Q.4 What do you mean by operator overloading? Explain with suitable C++ program.
- Q5 write a C++ program which demonstrates file operations.

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Computer organization &

Architecture

Paper-III

- Q.1 what is combinational circuits ? Explain Half adder with logic and Truth Table.
- Q.2 What is number systems? Explain.
- Q.3 Explain following terms:
a- Memory reference Instruction.
b- Interrupt
- Q.4 What is addressing modes? Explain in detail.
- Q5 What is DMA ? Explain various types of Data transfer mode in detail.

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OFFICE TOOLS

Paper-IV

- Q.1 what is Recycle bin ? Explain.
- Q.2 What is watermark? Write the procedure for insetting watermark.
- Q.3 What is built in function? Explain any fine built in functions.
- Q.4 What is Header and Footer? Explain.
- Q5 Write the procedure for adding movie, sound and picture to the slide.