

KENDRIYA VIDYALAYA SANGATHAN

Easy and Scoring Areas for Slow Bloomers

SUBJECT: COMPUTER SCIENCE(083)

CLASS :XII

UNIT	UNIT NAME	THEORY
I	C++ Programming	15
II	Data Structure	5
III	Database Concepts	8
IV	Boolean Algebra	5
V	Networking Concepts	7
	Total	40

Q.No	Topic/Chapter	Marks	Total Marks
1	Header File- Functions of following header files stdio.h, string.h, math.h, ctype.h, stdlib.h, iomanip.h, conio.h etc.	1	7
	• Random function	2	
	Error- Syntax error (Function/Structure/Class)	2	
	Theory- Chapter 1, 2, 3 Types of errors, Call by Value/Reference, Global/Local Scope, #Define/Macro, Types of Loops, Default Arguments, Actual/Formal parameters, Basic Concept of OOPs, Function Prototype, Type Conversion(Implicit/Explicit), Function Overloading, etc.	2	
2	Theory- Chapter 4,5,6,8 Private/Protected/Public Access Specifiers of class, Data hiding, Constructor Vs Destructor, Types of Constructor (Default, Parameterized, Copy), Constructor overloading, Types of inheritance(Single, Multiple, Multilevel, Hierarchical, Hybrid), Visibility modes(private, protected, public) etc.	2	8
	Constructor/Destructor identification & its calling	2	
	Program on Class (Using if else, strcmp, constructor assign, function calling/returning)	4	
3	Array numerical Row major- Address of $A[i][j] = B + W [n_c(i - l_r) + (j - l_c)]$ Column major- Address of $A[i][j] = B + W [(i - l_r) + n_r (j - l_c)]$	3	5
	Conversion- Infix to postfix /prefix exp. OR Evaluation- Postfix exp. using stack by stack operation	2	
5	Theory- DDL & DML commands, Relational terminology (relation, attribute, tuple, degree, cardinality, domain), keys (primary, alternate, candidate, foreign), view, constraints (primary key, unique, check, default, null, not null)	2	

	Queries- select query using where, order by, group by & having clause. insert, update, delete, create table, create view, drop table, alter table etc. Output- select query using sum, avg, count, max, min etc and where condition.	4	8
6	Law- Absorption, Distributive, De-Morgan, Associative etc.	2	5
	Gate to equation or vice-versa (Using OR, AND, NOT, NOR, NAND)	2	
	Truth table- Find SOP and POS . SOP to POS or vice versa $\Sigma(0,2,5,6) \rightarrow$ Find POS $(X'+Y+Z').(X'+Y+Z).(X'+Y'+Z).(X'+Y'+Z') \rightarrow$ Find SOP	1	
7	Theory- Type of network (LAN, MAN, WAN, PAN), Topology (star, ring, bus), Transmission media (Co-axial, Optical fiber, twisted pair), Network device (Switch, Hub, Modem), Switching technique (circuit, message, packet), Cyber Crime, mobile technologies (CDMA, GSM, WLL), Network security (Hackers & crackers), Web technology (HTML, XML, Web browser), URL, Domain Name, IP Address, OSS & free s/w, shareware, Proprietary s/w, W3C, Viruses (Trojan Horse & worms), Web 2.0, Cloud computing etc.	3	7
	Network Diagram <ul style="list-style-type: none"> • Design layout & suitable topology (Using Star or Bus) • Type of n/w (LAN, MAN, WAN) with reason. • Server position with reason. • Switch/Hub, Modem, Gateway, Bridge & Repeater position with reason. • Type of transmission media (optical fiber, radiowave, satellite) with reason. • Internet accessibility through Proxy server by using Dialup/Broadband connection. 	4	