Maharashtra Board

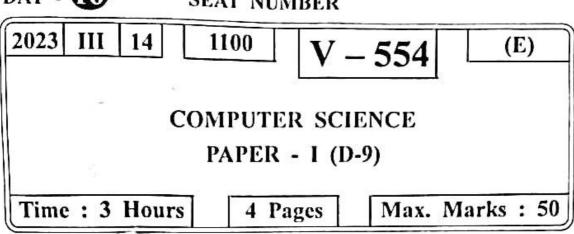
Question Paper 2023

Class 12

HSC QUESTION PAPER

Presented By

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Instructions: (1) All questions are compulsory	Instructions	:	(1)	All	questions	are	compulsory.
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Virtual

- (2) Figures to the right indicate full marks.
- (3) Use of any type of calculator not allowed.
- (4) Draw neat diagram wherever necessary.
- (5) Header files and comments in C++ program are not necessary.

1.	(A)	Select	the	correct	alternative	and	rewrite	the	following.
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Wast	tage of memory space within the partition is called as	
47	Internal fragmentation	
(ii)	External fragmentation	
(iii)	Compaction	
(iv)	Segmentation	
Data	items that are divided into subitems are called as	
4	Group item	
(ii)	Elementry item	
(iii)	Nodes	
(iv)	Arrays	
Whe	en a member function is defined inside the class, then it is treated	
as	function.	
(i)	Inline	
(ii)	Outline	
(iii)	External	

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		(d)	Long form of HREF is	1
	•		(i) Horizontal Reference	
			(ii) Hypertext Reference	
			(iii) Hyperlink Reference	
			(iv) Hypermedia Reference	
	(B)	Ansv	ver any two of the following:	
		. (a) ´	Define following terms regarding data structure :	3
	3		(i) Entity	
			(ii) Group item	
			(iii) Elementary item	
		(b)	What is Binary Tree ? Draw a binary tree diagram of following mathematical expression :	3
			$E = (a^2 + bc^2)/d$	
		(c)	Explain the use of video RAM. Explain data byte and attribute byte.	3
2.	(A)	Ans	wer any two of the following:	
		· (a)	Explain functions of each of following components of GUI:	3
			(i) Title bar	
53 -			(ii) Scroll bars	
			(iii) Minimize and Maximize or Restore button	
		(b)	State any six principal advantages of object oriented programming.	3
	9	(c)	Explain page memory management system with a suitable Page Map Table (PMT).	3
	(B)	Ans	wer any one of following:	
		(a)	Define following:	4
			(i) Track and Sector	
			(ii) Seek time	
			(iii) Transmission time	•,
com			(iv) Rotational delay	
asem.com		(p)	Write an algorithm for bubble sort with suitable example.	4
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3.	(A)	Ansv	ver any two of the following:	
		(a)	What is Class? Explain general form of class declaration.	3
		(b)	Which are three main areas in O.S. divides it's services ? Write example of each.	3
		(c)	What is Computer Worm? Explain mode of operation of computer worm.	3
	(B)	Ans	wer any one of the following:	
		(a)	Write any eight rules for operator overloading.	4
		(b)	What is Scarching? Explain binary search algorithm with example.	. 4
4.	(A)	Ans	swer any two of the following:	
		- (a)	What is HTML? State it's two advantages and disadvantages.	3
		(b)	Differentiate between Class and Object.	3
		(c)	Explain following tages of html with example:	3
			(i) <hr/>	
			(ii) <pre></pre>	
			(iii) 	
	(B) Ar	nswer any one of the following:	
		(a)	Write functions of each of followings:	4
			(i) ifstream	
			(ii) ofstream	
			(iii) filebuf	
			(iv) fstream	
		(t	Explain following tages of html with example:	4
			(i) 	
			(ii) 	
			(iii)	
			(iv) 	In m A
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- 5. Answer any two of the following:
 - (a) Write a C++ program which finds fibonacci series of 'n' terms.
 - (b) Write a C++ program to find factorial of a number during execution by using constructor function.
 - (c). Write a html code to produce following output:

Years		Students	
	Boys	Girls	Total
2011	30	20	50
2012	45	35	80
2013	55	75	130
2014	75	95	170

Record

OR

- 5. Answer any two of following:
 - (a) Write a C++ program to find entered number is armstrong number OR NOT armstong.
 - (b) Implement a class average that accepts value of three float variables another function print() average of three numbers.
 - (c) Write the exact output of following html program code with font specifications in bracket:

<html>

<body>

<Table border="2">

<TR> <TD Colspan = "2">

<H1 align = "center"> HSC Board Exam </H1>

</TD> </TR>

<TR> <TD> align = "center"><u> PAPER.I </u>

</TD>

<TD align = "center"> <u>PAPER-II </u>

</TD> </TR>

<TR> <TD> <P align="center"> <i> 50 marks <ii>

</P> </TD>

<TD align = "center"> <i> 50 marks <ii>

</TD>

</TR>

</Table>

</Body>

</HTML>

5

5

5

5

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