SECOND YEAR HIGHER SECONDARY EXAMINATION, MARCH 2016

(Scheme of Valuation)

Subject : Computer Science **Code No. 1019**

Qn. No.	Scoring Indicators	Split Score	Total Score
1	`struct` and structure name Minimum of two elements of different data types One advantage of structure. *(If syntax of structure is written instead of example, give 1 score)*	½+½ ½+½ 1	3
2	Nested structure	1	1
3	Use of `delete` operator	2	2
OR	*Any two points from the following:* (i) Causes orphaned memory blocks. (ii) Wastage of memory. (iii) Insufficient memory. (iv) System hanging. *(Other relevant problems, if any, can also be considered)*	1 + 1	2
4	Static polymorphism: (i) Compile-time (ii) Function overloading/ Operator overloading Dynamic polymorphism: (i) Run-time (ii) uses the concepts of pointers and inheritance. *(If explanation of compile-time and run-time cases is written, 1½ score each can be given.)* *(If the concept or an example of polymorphism is written, 1 score can be given)*	1 ½ 1 ½	3
5	Overflow	1	1
6	*Explanation or algorithm for the following:* (i) Overflow checking (ii) Setting the value of TOS (iii)Assigning the ITEM at TOS of STACK *(If the complete operation is diagrammatically shown, give full score)*	1 ½ ½	2
7	*Any two points from the following:* (i) Dynamic data structure. (ii) Size is not fixed in advance. (iii)It can grow or shrink during run-time. (iv)Dynamic memory allocation. (v) Any number of nodes can be added during run-time. *(If any one of the above point is explained, give full score)*	1 1	2
8	Hyper Text Transfer Protocol Secure	1	1
9	*Any two comparison points for each from the following:* Static web Page: (i) Content and layout is fixed. (ii) Never use databases. (iii) Directly runs on the browser. (iv) Not interactive. Dynamic web Page: (i) Content and layout may change during run time. (ii) Database is used to generate dynamic content (iii) Runs on the server side application program (iv) Interactive.	½ ½ ½ ½	2

10	Use of <H1> (or any other heading tag), <MARQUEE>, <FONT>, <IMG> and structural tags (<HTML>, <HEAD>, <TITLE>, <BODY>) *(Any three from the above 5 sets of tags can be given full score)*	1 1 1	3
11	gives the definition of the term / Data Definition / Data Description	1	1
12	<TABLE> tag and 6 sets of <TR> tag 3 sets of <TH> tags in the first <TR> pair 3 sets of <TD> tags in each of the remaining <TR> pairs Data setting within <TH> pairs and <TD> pairs *(If these tags are not used properly, and only structural tags are written, give 1 score.)* *(If SQL statement is written for this question, the following distribution may be used:* *Command – 1 score; Column descriptions – 3 score for 3 columns; Proper syntax – 1 score)* *(If a table is drawn with the details of five fruits, give 2 scores)*	1 + 1 1 1 1	5
OR	<OL> tag and Type attribute 5 sets of <LI> tags and Data setting Structural tags *(If a roman numbered list of five fruits is prepared, give 2 scores)*	1 + 1 1 + 1 1	5
13	Correct / Incorrect *(In the context of JavaScript it is incorrect and in other cases, it is correct)*	1	1
14	Proper example/syntax in C++/JavaScript/PHP Use / Explanation / Output	2 1	3
15	The keyword `function` and function name Body to find the product of any two numbers (or variables) *(Give full score if an HTML Form is designed to accept two numbers and display their product.)*	1 1	2
16	SSH / SFTP *(or Secured File Transfer Protocol)*	1	1
17	Dedicated hosting. Servers are usually hosted in data centers where the service provider facilitates Internet connectivity, round-the-clock power supply, the technical expertise for managing web servers, etc. *(Explanation of dedicated hosting can also be considered for 1 score instead of writing advantage.)*	1 1	2
18	Physical (Internal), Logical (Conceptual), and View (External) Explanation of each in a sentence.	1½ 1½	3
19(a)	Primary key – Acc Number, Candidate keys – Name and Balance *(Any one of the above columns may be considered as the primary key and other two as candidate keys)*	½+½	2
19(b)	$\sigma_{Balance>200000}$(ACCOUNT). OR `SELECT * FROM Account WHERE Balance>200000;`	½+½	

	OR Output from the table (i.e.; the last row)		

20	*(Command – ½ score, Required clause – ½ score for each query)*
	(Syntax or Example can be considered)
	(a) `ALTER TABLE <table_name>`
	`RENAME TO <new_table_name>;`
	(b) `DELETE FROM <table_name>`
	`[WHERE <condition>];` *(This clause is Not essential)*
	(c) `ALTER TABLE <table_name>`
	`MODIFY <column_name> <data_type> [<size>] [<constriant>];`
	(d) `ALTER TABLE <table_name>`
	`DROP <column_name>;`
	(e) `ALTER TABLE <table_name>`
	`ADD <column_name> <data_type> [<size>] [<constriant>];`
		½
		½
		1
		½
		½
		½
		½
		½
		½
			5

21	*Give 1 score for any relevant response*	1	1
22	(a) freeware	1	1
23(a)	*Any two comparison points from the following:* Indexed array: (i) Numeric index (ii) Non-negative numbers are used as index or subscripts (iii) Eg.: $price=array(25, 40, 50, 30); Associative array: (i) Named keys as index (ii) Strings are used as keys /index (iii) Eg.: $price=array("pen"=> "25", "book"=> "40", "box"=> "50", "cover"=> "30"); *(If examples are correct, full score can be given)*	½ ½ ½ ½	2
23(b)	*(Code may be using C++/JavaScript/PHP)* Outer loop for generating numbers below 50 Inner loop for generating numbers up to the half (or square root) of the above number Factor checking and display of prime number	1 1 1	3
OR	Outer loop for generating numbers below 100 Inner loop for generating numbers up to the half of the above number Factor checking and summing the factors Perfect number checking	1 1 ½ ½	3
	Full score may be given if the programs are written for only prime number checking and perfect number checking (i.e. without outer loop) *OR* *<?php ..... ?>* - *1 score* *Loop* - *1 score* *Remaining logic* - *1 score*		
24(a)	Parallel computing / Distributed computing	1	1
24(b)	SaaS, Paas, IaaS *(Explanation of any two can be given full score)* *(Explanation about cloud services can be given 1 score)*	1+1+1	3

25(a)	Credit card / *Debit card / ATM Machine / Swipe machine / eChequeue*	1	1
25(b)	Explanation about industrial property right and copyright. One example for each	1 + 1 ½+½	3

1. Joy John, St. Joseph's HSS, Thiruvananthapuram.
2. Lakshimija P. S., AKM HSS, Mylapore, Kollam.
3. Firosh Khan S. S., Govt. HSS, Konni, Pathanamthitta.
4. Sajan Mathew, SJ HSS, karimannoor, Idukki.
5. Krishnakumar N., NS HSS, Nedumudi, Alappuzha.
6. Binoj Chaccko, JJMM HSS, Yendayar, Kottayam.
7. Resmi Gopinath, NSS BHSS, Manikyamangalam, Ernakulam.
8. Subhash A. Panikulam, St. Antony's HSS, Mala, Thrissur.
9. Sreeja R. Nair, IKT HSS, Cherukulamba, Malappuram.
10. Shinil P. P., Palaora HSS, Ulliyeri, Kozhikode.
11. Jithesh A., Vijaya HSS, Pulppalli, Wayanad.
12. , Kasaragode.

13 TEDDY JOSEPH KANNUR Teddy 2/4/16

14. Abdul Vajid K.K. Kasaragod Vajid 2/4/16