HIGHER SECONDARY PRACTICAL EXAMINATION 2018

SUBJECT:COMPUTER SCIENCE

Instructions to Candidates

a. You can see TWO circled/Tick-marked questions below and attempt only that questions. (One Question is from PART A and the other question is from either PART B or PART C).Write down that Questions in your answersheet.

b. Write the required Program/Code/Queries within ONE HOUR and show to the Examiner.

c. You must show all your outputs to Examiner.A Viva-Voce will be conducted based on practical questions.

d. Score Distributions is given below.

a.	C++ Program	-	10
b.	Debugging skills and Output	-	6
c.	HTML Code/Script/SQL Queries	-	10
d.	Error Correction and Output	-	6
e.	Practical log Book	-	4
f.	Viva Voce	-	4
	TOTAL		**40**

QUESTIONS

PART A   C ++ Program

1. Input the three coefficients of a quadratic equation and find the roots.
2. Find the sum of the digits of an integer number.
3. Find the sum of the first N natural numbers.
4. Find the length of a string without using strlen() function.
5. Read admission number of N students in a class and search for a given admission number in the list. Use linear search method of searching.
6. Find the factorial of a number with the help of a user-defined function.
7. Input a number and check whether it is palindrome or not.
8. Find all prime numbers below 100.
9. Define a function to swap the contents of the two variables.
10. Read N numbers into an array and display the numbers larger than the average value.
11. Input an integer number and display its binary equivalent .
12. Find area of a rectangle, a circle and a triangle. Use switch statement for selecting an option from a menu.

13. Display the first N terms of Fibonacci series.
14. Input two years (e.g. 1000, 2000) and display all leap years between them.
15. Create an array to store the heights of some students and sort the values.

PART B HTML /JAVA Script / PHP

16. Design a simple and attractive web page for Kerala Tourism. It should contain features like background colour/image, headings, text formatting and font tags, images, etc.
17. Design a personal web page for your friend. It should have a link to his e-mail address.
18. Design a simple webpage about your school. Create another webpage named address.html containing the school address.Give links from school page to address.html.
19. Design a webpage containing frames that divide the screen vertically in the ratio 50:50. Design two web pages – one containing the list of Indian cricket team members and the second page containing a list of Indian football team members.
20. Design a web page as shown below using appropriate list tags.

List of Nobel Laureates from India

Rabindra Nath Tagore

He was the first to get Nobel Prize from India. He received prize in literature in 1921. He got Nobel Prize for his collection of poems "Gitanjali".

C V Raman

He got Nobel for Physics in 1930. He received Nobel Prize for his contribution called Raman Effect.

Mother Teresa

Mother Teresa who founded Missionaries of Charity which is active in more than 100 countries received Nobel Prize in 1979.

21. Design a web page containing a table as shown below.

Terrestrial Planets (Source: NASA)

Planet	Day Length (In Earth hours)	Year Length (In Earth days)
Mercury	1408	88
Venus	5832	224.7
Earth	24	365.26
Mars	25	687

22. Design a web page as shown below.

Client Login	
Enter User Name	
Enter your Password	
Submit	Clear

23. Design a web page as shown below.

Department of Tourism

Government of Kerala

Tourist Destinations in Kerala

1. Beaches
   a. Kovalam
   b. Muzhuppilangad
   c. Kappad
2. Hill Stations
   i. Munnar
   ii. Wayanad
   iii. Gavi
3. Wildlife
   a. Iravikulam
   b. Muthanga
   c. Kadalundi

24. Develop a web page with two text boxes and a button labelled "Show". The user can enter a number in the first text box. On clicking the button, the second text box should display the sum of all numbers up to the given number. Write the required JavaScript.

25. A web page should contain one text box for entering a text. There should be two buttons labelled "To Upper Case" and "To Lower Case". On clicking each button, the content in the text box should be converted to upper case or lower case accordingly. Write the required JavaScript for these operations.

26. Write a PHP program to accept a number and display it in the following format. If 5 is given, then the output will be as follows:

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

PART C SQL

27. a) Create a table Student with the following fields.
    RollNumber Integer Primary key
    Name Varchar (25)
    Batch Varchar (15)
    Mark1 Integer
    Mark2 Integer
    Mark3 Integer
    Total Integer
    b) Insert at least 5 records into the table except for the column Total.
    c) Update the column Total with the sum of Mark1, Mark2 and Mark3.
    d) List the details of students in Commerce batch.
    e) Display the name and total marks of students who are failed (Total < 90).

28. a) Create a table Employee with the following fields.
    Emp_code Integer Primary key
    Emp_name Varchar (20)
    Designation Varchar (25)
    Department Varchar (25)
    Basic Decimal (10,2)
    DA Decimal (10,2)
    Gross_pay Decimal (10,2)
    b) Insert at least 5 records into the table except the column Gross_pay and DA.
    c) Update DA with 75% of Basic.
    d) Display the details of employees in Purchase, Sales and HR departments.
    e) Update the Gross_pay with the sum of Basic and DA.

29. a) Create a table Stock, which stores daily sales of items in a shop, with the following fields
    Item_code   Integer Primary key
    Item_name   Varchar (20)
    Manufacturer_Code   Varchar (10)
    Qty   Integer
    Unit_Price   Decimal (10,2)
    b) Insert at least 5 records into the table.
    c) Display the item names with Qty zero.
    d) Increase the unit price of all items by 10%.
    e) List the items manufactured by "ABC & Co" with quantity above 100.

30. a) Create a table Book with the following fields
    Book_ID   Integer   Primary key
    Book_Name   Varchar (20)
    Author_Name   Varchar (25)
    Pub_Name   Varchar (25)
    Price   Decimal (10,2)
   b) Insert at least 5 records into the table.
   c). Display the details of books with price 100 or more.
   d). Display the Name of all the books published by SCERT.
   e). Increase the price of the books by 10% which are published by SCERT.

31. a) Create a table Bank with the following fields
    Acc_No   Integer   Primary key
    Acc_Name   Varchar (20)
    Branch_Name   Varchar (25)
    Acc_ Type   Varchar (10)
    Amount   Decimal (10,2)
   b) Insert at least 5 records into the table.
   c) Display the account details of "Savings Account" in Edappilly branch.
   d) Display the details of customers in Thiruvananthapuram, Ernakulam and Kozhikode.
   e) List the details of customers in Thrissur branch having a minimum balance of Rs. 5000.