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CSE71

New Horizon College of Engineering, Bangalore

Autonomous College affiliated to VTU, Accredited by NAAC with 'A' Grade& NBA

Make-up Examination July 2021

WEB TECHNOLOGIES

Duration: **3 hrs** Max. Marks: **100**

Answer five full questions choosing one complete question from each module.

	Module 1			
1 a)	Give the explanation for the following tags with proper output example (1)<img> (2)< a> (3)<hr>	**6**	**L1**	**CO1**
b)	Describe the elements of html document with example.	**7**	**L2**	**CO1**
c)	Use and apply your knowledge to compare HTML and XHTML with proper example	**7**	**L3**	**CO1**
	OR			
2 a)	Give the explanation for the following tags with proper output example (1)<table> (2)<!DOCTYPE> (3)<form>	**6**	**L1**	**CO1**
b)	Describe the general form of HTTP Response phase with an example.	**7**	**L2**	**CO1**
c)	Identify the tags which is used to create the login page with proper example html code and output	**7**	**L3**	**CO1**
	Module 2			
3 a)	Identify different levels of style sheets in CSS and develop an xhtml document which will include all 3 levels	**6**	**L3**	**CO2**
b)	List out different types of lists available in html. Give the html doc which will include the different lists types with your own example	**7**	**L1**	**CO2**
c)	Explain different selector forms with an example code	**7**	**L2**	**CO2**
	OR			
4 a)	Apply the list concepts to the html document which will include entertainment as heading with small description about it and an ordered list of south indian movie and north Indian movie as items with an unordered list of 2 names of movies of your choice in each category as items	**6**	**L3**	**CO2**
b)	Define conflict resolution and also give different possible ways to resolve the conflict when u create the xhtml document using style sheets	**7**	**L1**	**CO2**
c)	Explain box model with html code and write the output of the code	**7**	**L2**	**CO2**
	Module 3			
5 a)	Analyze different screen output and keyboard input functions with example code and output	**10**	**L4**	**CO3**
b)	Develop the html code to validate your usn and semester with proper output	**10**	**L6**	**CO3**
	OR			
6 a)	Analyze different ways to handle the events in javascript using example code and outut	**10**	**L4**	**CO3**
b)	Develop the xhtml document that has two short paragraph of text. Define two	**10**	**L6**	**CO3**

different styles p1 and p2. The P1 style must use left and right margin of 20 pixels, a background color of pink and cell padding of 0.4 inch. The P2 style must use left and right margin of 30 pixels, a background color of green and cell padding of 0.2 inch and solid border.

Module 4

7a)	Recommend different ways to change the position of elements in the html document with proper html code and also provide the sample output for the same code	10	L5	CO4
b)	Design a html document which will change the color and font dynamically when the mouse moves the cursor on top of the element	10	L6	CO4
	OR			
8 a)	How will you control the movement of an element. Recommend few mouse event to do this task and also explain this concept with example html code	10	L5	CO4
b)	Develop a XHTML document that contains four short paragraphs of text, stacked on top of each other, with only enough of each showing so that the mouse cursor can be placed over some part of them. When the cursor is placed over the exposed part of any paragraph, it should rise to the top to become completely visible	10	L6	CO4

Module 5

9 a)	With a diagram explain the logical internal structure of array in PHP	6	L2	CO5
b)	What is the significance of PHP arrays. Explain how it is declared and used. Explain 5 different functions dealing with arrays	7	L1	CO6
c)	Apply the concept of cookies to create a PHP program to store current date-time in a COOKIE and display the 'Last visited on' date-time on the web page upon reopening of the same page.	7	L3	CO5
	OR			
10 a)	Explain the PHP string operations with sample code and output	6	L2	CO5
b)	Give some Predefined functions available in PHP with proper example	7	L1	CO6
c)	How will you apply implicit and explicit conversion in PHP embedded html document	7	L3	CO5

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CSE72

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Make-up Examination July 2021

SOFTWARE TESTING

Duration: **3 hrs** Max. Marks: **100**

Answer five full questions choosing one complete question from each module.

	Module 1			
1 a)	Describe the windshield wiper problem.	**5**	**L1**	**CO1**
b)	Draw with a neat sketch and explain the features of "The SATM "system.	**5**	**L1**	**CO1**
c)	Illustrate the Improved version of next date problem.	**10**	**L3**	**CO1**
	OR			
2 a)	List different types of faults? Explain Fault taxonomies in detail.	**5**	**L1**	**CO1**
b)	Write the definition of Test case? Explain the format of test case Information?	**5**	**L1**	**CO1**
c)	Draw the dataflow diagram for a structured triangle program implementation and problem statement.	**10**	**L3**	**CO1**
	Module 2			
3 a)	Explain the following with a neat figure a)robustness testing b)worst-case testing of boundary value analysis	**10**	**L2**	**CO2**
b)	Evaluate the different equivalence test cases for the commission problem	**10**	**L5**	**CO2**
	OR			
4 a)	Discuss Boundary Value Analysis and Discuss Limitations of Boundary value Analysis?	**10**	**L2**	**CO2**
b)	Justify the strong &weak robust equivalence class testing?	**10**	**L5**	**CO2**
	Module 3			
5 a)	Design the commission problem and its DD path graph .Illustrate the du-paths for stocks, locks sales commission variables.	**10**	**L6**	**CO3**
b)	Examine various test coverage metrics as defined by Miller.	**10**	**L4**	**CO3**
	OR			
6 a)	Design a structured triangle program ,draw the program graph , and find DD-paths ,DD-path graphs for triangle problem	**10**	**L6**	**CO3**
b)	Inspect a slice based testing and show slices on any 4 variables?	**10**	**L4**	**CO3**
	Module 4			
7a)	Illustrate the following terms a)Mutant b) Killed Mutant c) Live mutant d)Mutant operators e)Mutation score	**10**	**L3**	**CO5**
b)	Investigate various stages involved in industrial strength inspection process	**10**	**L4**	**CO4**
	OR			
8 a)	Illustrate with an example different mutation operators generate mutants for the triangle problem	**10**	**L3**	**CO5**
b)	Examine different roles in a review and explain their responsibilities	**10**	**L4**	**CO4**
	Module 5			
9 a)	Illustrate the steps involved in selenium web driver installation	**10**	**L3**	**CO6**
b)	Examine the different annotations present in testing	**10**	**L4**	**CO6**
	OR			
10a)	Illustrate the various locators in selenium IDE.	**10**	**L3**	**CO6**
b)	Examine the characteristics and uses of various commands used in selenium IDE.	**10**	**L4**	**CO6**

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CSE73

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Make-up Examination July 2021

MOBILE APPLICATION DEVELOPMENT

Duration: **3 hrs** Max. Marks: **100**

Answer five full questions choosing one complete question from each module.

	Module 1			
1 a)	Describe the basic building blocks of Android	8	L1	CO1
b)	Explain the android Log Cat and android studio debugger	8	L2	CO1
c)	Illustrate the use of Android profiler	4	L3	CO1
	OR			
2 a)	Describe the sensor android framework	8	L1	CO1
b)	Explain layered architecture of android with neat diagram	8	L2	CO1
c)	Illustrate the project structure of Android studio.	4	L3	CO1
	Module 2			
3 a)	Illustrate the use of table layout and absolute layout with XML code	6	L3	CO2
b)	Analyze the various stages of an activity that goes through its lifecycle with neat diagram	6	L4	CO2
c)	Develop a mobile application simple calculator using radio button. Write the Java code and draw the layout	8	L6	CO2
	OR			
4 a)	Illustrate the use of recycler view with example.	6	L3	CO2
b)	Analyze the importance of Event handling methods of basic views in Android	6	L4	CO2
c)	Create an application which displays three buttons named RED, GREEN and BLUE and one Text View. When the user click on any one of the buttons, the background color of the text view should be changed to appropriate color.	8	L6	CO2
	Module 3			
5 a)	Classify the different types of notification used in android	6	L3	CO3
b)	Illustrate the use of native android actions	6	L3	CO3
c)	Create a mobile application to demonstrate the use of Implicit intent. Write the Java file and draw the layout for the same	8	L6	CO3
	OR			
6 a)	Illustrate the uses of Broadcast receiver in mobile application	6	L3	CO3
b)	Categorize the different type of services and various stages of lifecycle used in services	6	L3	CO3
c)	Create a mobile app using Explicit intent to display the user login and signup bouton. On clicking the signup button it should navigate to the user register page and after clicking the register button it should navigate to the first page. Write the Java file and draw the layout for the same	8	L6	CO3
	Module 4			
7a)	Illustrate the use of preference activity	6	L3	CO4
b)	Analyze the importance of storing data using files in mobile application development	7	L4	CO5
c)	Interpret the importance of Android AsyncTask with example	7	L5	CO4
	OR			
8 a)	Illustrate the use of Threads with example	6	L3	CO4
b)	Analyze the use of shared preference in android	7	L4	CO5
c)	Evaluate SQLite Database uses in Mobile App with the suitable example	7	L5	CO4
	Module 5			
9 a)	Identify the importance of building apps with Location Based Services	6	L4	CO6
b)	Analyze the steps used in Signing and Versioning of mobile application	5	L4	CO6
c)	Evaluate the feature of Sending SMS with example	9	L5	CO6
	OR			
10a)	Identify the importance of Using Google Play to distribute and monetize mobile application	6	L4	CO6
b)	Analyze the use of Camera API with example	5	L4	CO6
c)	Recommend the best practices for security and privacy measures used in mobile application development	9	L5	CO6

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CSE741

New Horizon College of Engineering, Bangalore

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Make-up Examination July 2021

FUNDAMENTALS OF DATA SCIENCE

Duration: **3 hrs** Max. Marks: **100**

Answer five full questions choosing one complete question from each module.

Module 1

1 a)	What is data science? Explain how data science evolved over the years.	**10**	**L1**	**CO1**
b)	Summarize the following terminologies i) Data mining ii) Artificial Intelligence iii) Machine learning iv) Exploratory data analysis	**10**	**L2**	**CO1**

OR

2 a)	Why data science is important? Show the relevance of the statement with a case study "Data science is moving decision making from gut feeling and guesstimates to better more informed ones driven by data"	**10**	**L1**	**CO1**
b)	Summarize how data science is related to domains of mathematics, computer science and domain knowledge.	**10**	**L2**	**CO1**

Module 2

3 a)	Identify the steps of data science. Illustrate the methodology to be followed for data exploration.	**10**	**L3**	**CO2**
b)	Analyze and discover the level of measurement being used in each scenario. Give reasons for your findings. a) The number of motor-vehicle accidents on a particular stretch of the Pacific Highway in a week. b) Heat measured in degree Celsius. c) Children in elementary school are evaluated and classified as non-readers (0), beginning readers (1), grade level readers (2), or advanced readers (3). d) Your local police force wants to install cameras that can "catch" drivers who run red lights. They choose a busy intersection, install a test camera, and determine whether each car stops safely or "runs" the light. e) The teacher of a class of third graders records the eye color of each student.	**10**	**L4**	**CO2**

OR

4 a)	Identify the differences between the four levels of data giving examples for each.	**10**	**L3**	**CO2**
b)	The table below displays a selection of variables from a study dataset.	**10**	**L4**	**CO2**

ID	Age	Gender	Height	Blood group	LDL†	Feeling happy?	Number of children	Smoke?	Social class
1	25	F	1.62	B	150	Agree	0	No	I
2	35	F	1.58	O	123	Strongly agree	1	Yes	II
3	44	M	1.35	A	178	Disagree	3	Yes	I
4	28	F	1.54	AB	205	Disagree	0	No	III
5	35	M	1.35	O	229	Indifferent	2	Yes	I
6	42	M	1.21	B	215	Agree	2	Yes	IV
7	36	F	1.76	A	130	Strongly disagree	1	No	IV
8	38	M	1.57	A	175	Disagree	1	Yes	V
9	30	M	1.47	AB	240	Indifferent	0	No	III
10	40	F	1.18	B	167	Strongly agree	6	No	I
:	:	:	:	:	:	:	:	:	:

† LDL =Low Density Lipoprotein

Analyze the data set and discover
i) the quantitative variables
ii) the qualitative variables
iii) the continuous variables
iv) the discrete variables
v) the nominal variables
vi) the ordinal variables
vii) the interval variables
viii) the ratio variables

Module 3

5 a)	Consider that two people, Lucy and Avinash who are in charge of writing blog posts for a company. From past performances, they have liked 80% of Lucy's work and only 50% of Avinash's work. A new blog post comes to the desk in the morning, but the author is not mentioned. Given that they love the article, apply Bayes theorem to find the probability that it came from Avinash. Each blogger blogs at a similar rate. Defend your findings.	**10**	**L3**	**CO3**
b)	Compare and contrast the application, probability function, expected value and variance for the binomial, geometric, poisson and continuous random variables.	**10**	**L4**	**CO4**

OR

6 a)	Apply the concept of binomial random variable to solve the given problem. A die is tossed 3 times. What is the probability of i) no fives turning up ii) 1 five turning up iii) 3 fives turning up iv) Identify the reasons how this problem falls under binomial distribution.	**10**	**L3**	**CO3**
b)	Compare and contrast point estimate and confidence interval methods of inferential statistics	**10**	**L4**	**CO4**

Module 4

7a)	Determine the difference between decision tree approach and random forest	**10**	**L5**	**CO5**
b)	Compose the procedure to be followed during a decision tree construction.	**10**	**L6**	**CO5**

OR

8 a)	Determine the difference between linear regression and logistic regression	**10**	**L5**	**CO5**
b)	Compile the iterative method followed by k means algorithm to partition the data set into k clusters	**10**	**L6**	**CO5**

Module 5

9 a)	Identify the important aspects of verbal communication	**10**	**L3**	**CO6**
b)	Compare the different data visualization methods	**10**	**L4**	**CO6**

OR

10a)	Identify Simpson's paradox with an example	**10**	**L3**	**CO6**
b)	Compare the effective forms of communication	**10**	**L4**	**CO6**

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NHOP10

New Horizon College of Engineering, Bangalore

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Make-up Examination July 2021

DATA ANALYTICS

Duration: **3 hrs** Max. Marks: **100**

Answer five full questions choosing one complete question from each module.

	Module 1			
1 a)	Describe the different phases of data analytics with an example.	10	L1	CO1
b)	Explain the data warehouse architecture with staging area and data mart.	10	L2	CO1
	OR			
2 a)	List the types of data analytics. Describe the each type with suitable example.	10	L1	CO1
b)	Explain and summarize snowflake & fact constellation schema for Indigo Airlines.	10	L2	CO1
	Module 2			
3 a)	Categorize the types of SQL. Illustrate each type with commands, description and example.	10	L3	CO2
b)	Illustrate the advantage of column storage and massively parallel processing in Vertica with neat diagram.	10	L3	CO2
	OR			
4 a)	Solve the following schema with appropriate queries. Customer(C_ID, Name, age, address) Orders(O_ID,date, C_ID, amount) Create the table by properly mentioning the primary key and foreign key constraints. Insert at least five tuples for each of the table. Write a query to display C_ID and Name for the age group between 20 to 25. Write a query to display a customer name and O_ID, If the order amount is less than Rs.500.	10	L3	CO2
b)	Illustrate how high availability is achieved in vertica using 5-node cluster of ksaftey-1 and ksaftey-2.	10	L3	CO2
	Module 3			
5 a)	Draw a projection manually for a table with 5 columns choosing appropriate encoding strategy to implement replication with ksafty = 2. Explain the output.	10	L1	CO3
b)	Summarize the difference between hybrid data store : WOS and ROS	10	L2	CO4
	OR			
6 a)	Describe how a file can be copied to a vertica database and how error logs cab be verified.	10	L1	CO3
b)	Outline the different projection types. Explain functions supporting the live aggregate projections.	10	L2	CO4
	Module 4			
7a)	Analyze web analytics process with a neat diagram.	10	L4	CO5
b)	Evaluate Audience analysis and Conversion analysis for Google Demo Account.	10	L5	CO5
	OR			
8 a)	Categorize the different types of dashboards? Explain with its metrics.	10	L4	CO5
b)	Justify closed loop model of KISSMETRICS provides advantages over Google Analytics with a neat diagram.	10	L5	CO5
	Module 5			
9 a)	Analyze the steps to follow in Marketing analytics.	10	L4	CO6
b)	Evaluate on Bristol Myers Squibb company.	10	L5	CO6
	OR			
10a)	Examine the stages in target marketing strategy with diagram.	10	L4	CO6
b)	Evaluate on Xerox Corporation case study.	10	L5	CO6