

Question Bank
Specialization : Business Analytics

Course Code : 205

Course Name: Business Analytics using R Programming

Sr.no	Question Type	Question	Marks
1	REMEMBERING	Define Analytics and its importance.	2
2	REMEMBERING	Explain the needs of Analytics.	2
3	REMEMBERING	Define R and its features .	2
4	REMEMBERING	Define File operations in R	2
5	REMEMBERING	Define Business analytic.	2
6	REMEMBERING	Define Business intelligence	2
7	REMEMBERING	Define Data Science with suitable example .	2
8	REMEMBERING	Define Business Analyst and it's characteristics	2
9	REMEMBERING	Different Types of Analytics,	2
10	REMEMBERING	Importance of data in business analytics,	2
11	REMEMBERING	Differences between data, information and knowledge,	2
1	UNDERSTANDING	Explain analytics and it's need.	5
2	UNDERSTANDING	Explain Evolution of analytics step by step	5
3	UNDERSTANDING	Need and importance of Analytics	5
4	UNDERSTANDING	Explain Business analytics vs business analysis,	5
5	UNDERSTANDING	Differentiate Business intelligence vs Data Science	5
6	UNDERSTANDING	Roles of Data Analyst Vs Business Analyst,	5
7	UNDERSTANDING	Explain Types of Analytics. Tools for Analytics.	5

8	UNDERSTANDING	Explain Importance of data in business analytics	5
9	UNDERSTANDING	Differences between data, information and knowledge.	5
10	UNDERSTANDING	Explain data maturity in detail.	5
11	UNDERSTANDING	What is good quality data .	5
12	UNDERSTANDING	Define various stages of an organization in terms of data maturity.	5
13	UNDERSTANDING	Options for organizations in the absence of good quality data	5
1	APPLY	As Business analytics if you are appointed in junior college and you have been asked to prepare a summary report of enquiry of 11 th and 12 th student. Prepare your plan of action.	10
2	APPLY	A company wants to establish their one unit at Satara as business analyst what are the different parameters consider to for business analysis,	10
3	APPLY	A company want to perform analysis on electronics goods like laptop and desktop and their peripherals purchased through online, how Business intelligence help to increase sales of goods.	10
4	APPLY	What is Data Science ? explain use of data science in digital marketing	10
5	APPLY	Enumerate and discuss the function of Data Analyst Vs Business Analyst,	10
6	APPLY	Discuss various Types of Analytics, which one is suitable for retail marketing.	10
7	APPLY	Explain the various Analytics Tools. Which tool is suitable to study employee satisfaction and performance level in organization.	10
8	APPLY	Importance of data in business analytics with reference to HR analytics	10
9	APPLY	Explain the various stages of data, information and knowledge in context to Health Care Analytics .	10
10	APPLY	Explain various stages of an organization in terms of data maturity	
1	ANALYSE	Define Business analytics vs business analysis, Business intelligence vs Data Science, Data Analyst Vs Business Analyst, Types of Analytics, Tools for Analytics. Concept of insights. Importance of data in	10

		business analytics, Differences between data, information and knowledge, various stages of an organization in terms of data maturity, Options for organizations in the absence of good	
2	ANALYSE	<p>Swaraj India Industries Limited The company was incorporated in 1996 with the main objective of making ready market available for the milk produced in the area. A modest milk pasteurization plant was set up. Year by year capacity was enhanced to full fill the requirements.</p> <p>In order to further strengthen the back ward integration farmers are being provided technical inputs by way of medical facilities and as well as financial support for purchase of milch animals.</p> <p>In the mean time emphasis was laid down on quality improvisation by keeping milk at low temperatures, in doing so Bulk Milk Coolers are put in operations. Milk chilling centers are also put at various strategic points. Bactofuse of 25 KL per Hr. has been put in place to make the products safe. Second phase also shall include some more value added product as well as mega cattle farm . as business analyst suggest the business plan .</p>	10
3	ANALYSE	Analyse various stages of an organization in terms of data maturity,	10
4	ANALYSE	Discuss various Options for organizations in the absence of good quality data.	10
1	EVALUATE	Explain how Business intelligence help to provide insight of decision making in logistic management system.	10
2	EVALUATE	As a business analyst if you are appointed business head of Microsoft company , Microsoft company would like to launch a new Product Quil View in market suggest you strategy to successful launching the new product.	10
3	EVALUATE	<p>"BARAMATI TALUKA SAHAKARI DOODH UTPADAK SANGH MARYADIT,BARAMATI",recognized with its popular brand name 'NANDAN' is a cooperative milk union established on 1st December 1977. Since then achieved many land marks in milk procurement, extension, animal health, cattle breeding, milk processing, product manufacturing and marketing. The Doodh Sangh has high-tech dairy plant popularly known as "Nandan Dairy" with 1.5 lakh liters per day milk handling capacity equipped with modern milk packing unit and by-product unit at Malegoan Tal. Baramati.The Doodh Sangh is also supported with 20,000 LPD milk chilling center at Nira Tal. Purandar.</p> <p>For milk production enhancement in milk shed area , the Doodh Sangh at present has organized 30 mobile veterinary A.I. routes supported with state of art Cattle Feed Plant to produce 200 MT/day Cattle Feed expandable to 300 MT/day. To help the milk Producers and the society connected to us we have introduced an outstanding service sector (Petrol Pump) to provide fuel for their vehicles utilized for the milk business.</p>	10

		How data science will be implemented to enhance skill set and production of diary	
1	CREATE	Create a suitable action plan to implement Data Analytics in Hospital Management system.	10
2	CREATE	Explain the various Analytics Tools. Which tool is suitable to study employee satisfaction and performance level in organization.	10

Unit -2

Sr.no	Question Type	Question	Marks
1	REMEMBERING	Define Analytical decision-making process	2
2	REMEMBERING	Discuss the characteristics of the analytical decision making process.	2
3	REMEMBERING	Discuss Breaking down a business problem into key questions	2
4	REMEMBERING	Explain Characteristics of good questions.	2
5	REMEMBERING	Discuss Skills of a good business analyst	2
6	REMEMBERING	Define Business analytics applications	2
7	REMEMBERING	Explain Future of Business Analytics.	2
8	REMEMBERING	Define Marketing Analytics.	2
9	REMEMBERING	Define HR Analytics,	2
10	REMEMBERING	Define Supply Chain Analytics	2
11	REMEMBERING	Define Retail Industry	2
12	REMEMBERING	Define Sales Analytics.	2
1	UNDERSTANDING	Explain Analytical decision-making process	5
2	UNDERSTANDING	Elaborate characteristics of the analytical decision making process.	5

3	UNDERSTANDING	Explain Breaking down a business problem into key questions that can be answered through analytics,	5
4	UNDERSTANDING	Explain Characteristics of good questions, Skills of a good business analyst	5
5	UNDERSTANDING	Explain Marketing Analytics and its process	5
6	UNDERSTANDING	Discuss how HR Analytics is essential in management	5
7	UNDERSTANDING	Explain the importance of Supply Chain Analytics	5
8	UNDERSTANDING	Explain business analytics can be used Retail Industry,	5
9	UNDERSTANDING	Explain Web & Social Media Analytics	5
10	UNDERSTANDING	Explain Transportation Analytics	5
1	APPLY	Explain various stages of Analytical decision-making process,.	10
2	APPLY	Explain the characteristics of the analytical decision making process.	10
3	APPLY	Discuss the process of Breaking down a business problem into key questions that can be answered through analytics	10
4	APPLY	Explain Characteristics of good questions and prepare questionnaire for the participants who involved in health care during COVID -19	10
5	APPLY	Explain Skills of a good business analyst. Explain the procedure to Prepare a summary report of all countries about the infected patient of CORONA Virus	10
6	APPLY	How Energy Analytics can be utilised in Power Generation and Distribution in India	10
7	APPLY	Dynamic Dairy is milk processing plant where more than 3000 employees are working suggest implementation of HR Analytics in Dynamic Dairy plant .	10
1	ANALYSE	How can you Convert a Business Problem into a Data Problem? Explain with suitable example .	10

2	ANALYSE	How to Define Business Problems as Analytics Question.	10
4	CREATE		10
5	CREATE		10

Unit -3

Sr.no	Question Type	Question	Marks
1	REMEMBERING	Define the different mode of R programming	2
2	REMEMBERING	How to check where r programming is installed properly	2
3	REMEMBERING	Define R environment	2
4	REMEMBERING	Define File operations in R	2
5	REMEMBERING	Define the various commands to read and write in R file	2
6	REMEMBERING	Define the steps to write code in R file	2
7	REMEMBERING	Define SQL Query in R programming	2
8	REMEMBERING	Discuss the various statistical tools	2
9	REMEMBERING	Define the stages to importing data from spreadsheets,	2
10	REMEMBERING	Define RDBMS with suitable example	2
1	UNDERSTANDING	Explain the procedure of setting R environment,	5

2	UNDERSTANDING	Summarize the process of the Downloading and Installing R	5
3	UNDERSTANDING	Summarize the command to check r Installed properly or not	5
4	UNDERSTANDING	List the syntax of Reading from and Writing to a file in R Programming	5
5	UNDERSTANDING	Explain different function of file operation in R	5
6	UNDERSTANDING	Writing R program to calculate and display sum of three numbers	5
7	UNDERSTANDING	Summarize the process of Importing data from spreadsheets,	5
8	UNDERSTANDING	Explain how to import SPSS In R	5
9	UNDERSTANDING	Explain Exploration and transformation activities in R	5
10	UNDERSTANDING	Explain Web Scraping in R	5
1	APPLY	Explain the procedure to Connect to RDBMS from R using ODBC,	10
2	APPLY	List the basic SQL queries in R,	10
3	APPLY	Differentiate Exploration and transformation activities in R	10
1	ANALYSE	Distinguish R -Reading from R Writing In R	10

Unit -4

Sr.no	Question Type	Question	Marks
2	REMEMBERING	<p>Q.1 R is an _____ programming language? Closed source GPL Open source Definite source</p> <p>2. Solve <code>varx<-23, 34->vary</code> <code>print(varx+vary)</code> <code>print(varx*vary)</code> <code>print(vary-varx)</code> <code>print(vary/varx)</code></p>	
3	REMEMBERING	<p>1. find the output <code>varx<-23, 34->vary</code> <code>print(varx == vary)</code> <code>print(varx!=vary)</code> <code>print(vary>varx)</code> <code>print(varx<vary)</code></p>	2
4	REMEMBERING	<p>1. Find the output <code>varx<-35, 65->vary</code> <code>if(vary<varx)</code> <code>print("var y is greater number")</code> <code>else</code></p>	2

		<code>print("var x is a greater number")</code>	
5	REMEMBERING	<pre>Solve a=switch(b,"first","second","third","four") print(a) x<-LETTERS[1:10] for(i in x) { print(i) }</pre>	2
6	REMEMBERING	Define Data types in R	2
7	REMEMBERING	Define Data types in R and its appropriate uses,	2
8	REMEMBERING	Define basic Program Structure in R,	2
9	REMEMBERING	Define Flow Control statement in R	2
10	REMEMBERING	Define For loop with syntax	2
11	REMEMBERING	Define Debugging tools in R	2
12	REMEMBERING	Describe functions cbind, rbind, Sapply, apply, tapply functions,	2
13	REMEMBERING	List different Flow Control statement	2
14	REMEMBERING	Define For loop syntax	2
15	REMEMBERING	Define If condition with suitable example	2
1	UNDERSTANDING	Explain While conditions with suitable example	5
2	UNDERSTANDING	Explain bugging tools in R programming	5

3	UNDERSTANDING	Explain various Data types in R	5
4	UNDERSTANDING	<p>Explain repeat loop</p> <pre>Solve i=4 repeat{ print("SPPU") #print(iINDEX+1) i=i+1 if(i == 17) { break } }</pre>	5
5	UNDERSTANDING	<p>Explain For loop Find the out put</p> <pre>y<-(1:10) for(i in y) { for(j in y) { print(i*j)} #print("\n") }</pre>	5
6	UNDERSTANDING	Explain While conditions and repeat loop with suitable example	5
7	UNDERSTANDING	Explain advantages and disadvantages of Debugging tools	5
8	UNDERSTANDING	Explain methods of Concatenation with example	5
9	UNDERSTANDING	Explain cbind, rbind, functions with example	5

10	UNDERSTANDING	Explain Sapply, apply, tapply functions,	5												
1	APPLY	Explain function seq(), cbind (), rbind(), merge	10												
2	APPLY	summarize data by using functions like: str(), class(), length(), nrow(),	10												
3	APPLY	What is head(), tail() function ? describe Advantages and disadvantages of Head and Tail function	10												
4	APPLY	<p>The weights of 5 people before and after a diet programme are given in the table.</p> <table border="1" data-bbox="582 739 1417 817"> <tr> <td>Before</td> <td>78</td> <td>72</td> <td>78</td> <td>79</td> <td>105</td> </tr> <tr> <td>After</td> <td>67</td> <td>65</td> <td>79</td> <td>70</td> <td>93</td> </tr> </table> <p>Read the 'before' and 'after' values into two different vectors called before and after. Use R to evaluate the amount of weight lost for each participant. What is the average amount of weight lost?</p>	Before	78	72	78	79	105	After	67	65	79	70	93	10
Before	78	72	78	79	105										
After	67	65	79	70	93										
5	APPLY	<p>Create the following vectors in R using seq() and rep().</p> <p>(i) 1; 1:5; 2; 2:5; :::; 12</p> <p>(ii) 1; 8; 27; 64; :::; 1000.</p> <p>(iii) 1; 0; 3; 0; 5; 0; 7; :::; 0; 49.</p>	10												
6	APPLY	<p>The built-in vector LETTERS contains the uppercase letters of the alphabet.</p> <p>Produce a vector of</p> <p>i) the first 12 letters;</p> <p>(ii) the odd 'numbered' letters;</p> <p>(iii) the (English) consonants.</p>	10												
1	ANALYSE	Use nrow(), ncol() for creating matrix of 4 X 3 and make addition of twomatrix toform third matrix	10												
2	ANALYSE	<p>(a) Sample the numbers {1; 2; 3} uniformly with replacement 50 times; use this to create a factor with levels Yes, No and Maybe.</p> <p>(b) Create a subvector by removing the Maybe entries from the factor above. What levels does the new factor have?</p> <p>(c) Use the command droplevels() to remove the level Maybe.</p>	10												
3	ANALYSE	Write a function to perform matrix-vector multiplication. It should take a matrix A and a vector b as arguments, and return the vector Ab. Use two loops to do this, rather than	10												

		%*% or any vectorization.	
4	ANALYSE	Suppose we wish to investigate the distribution of the maximum of 10 Poisson random variables with parameter $\lambda = 5$. Generate 1000 independent data sets consisting of such Poisson random variables. Find the maximum of each, and plot as a histogram.	10
5	ANALYSE	Write a function which, given a vector x of positive integers, returns a list of the same length as x , and the i th entry of the list is a character vector of length $x[i]$. The entries in the 1st element of the list should be "a1", "a2", and so on, and in the 2nd should be "b1", "b2" for $i = 2$, etc.	10
1	EVALUATE	(a) Create a small data frame representing a database of Films. It should contain the fields title, director, year, country, and at least three Films. (b) Create a second data frame of the same format as above, but containing just one new Film. (c) Merge the two data frames using <code>rbind()</code> . (d) Try sorting the titles using <code>sort()</code> : what happens?	10
2	EVALUATE		10
3	EVALUATE		10
4	EVALUATE		10
5	EVALUATE		10
6	EVALUATE		10
1	CREATE		10
2	CREATE		10
3	CREATE		10
4	CREATE		10
5	CREATE	Create a data frame representing a database of Employee. It should contain the fields Emp_Id, Emp_Name, Designation, Department at least five Employee Record.	10

Unit-5

Sr.no	Question Type	Question	Marks
1	REMEMBERING	Define Data Visualization,	2
2	REMEMBERING	List Popular Data Visualization tools	2
3	REMEMBERING	Define Exploratory Data Analysis(EDA).	2
4	REMEMBERING	Define Data Cleaning.	2
5	REMEMBERING	Define Data Inspection	2
6	REMEMBERING	Define functions like grepl(), grep(), sub(), summarize(), llist().	2
7	REMEMBERING	List graphical functions in R for data visualization.	2
8	REMEMBERING	List different type of chart.	2
9	REMEMBERING	Define Lattice graphics,	2
10	REMEMBERING	Define the ggplot .	2
1	UNDERSTANDING	Explain Concept of Data Visualization.	5
2	UNDERSTANDING	Explain Popular Data Visualization tools,	5
3	UNDERSTANDING	Explain Exploratory Data Analysis(EDA)	5
4	UNDERSTANDING	Explain Data Cleaning & Data Inspection with suitable example	5
5	UNDERSTANDING	Explain the following functions grepl(), grep(), sub(), summarize(), llist(),	5
6	UNDERSTANDING	Draw the pie chart Create vector slice (5) Create vector lbls with fruit name (5 fruit name) Draw pie chart	5
7	UNDERSTANDING	Data Visualization: Concept of Data Visualization, Popular Data Visualization tools, Exploratory Data Analysis(EDA), Data Cleaning, Explain Plotting and coloring in R.	5
8	UNDERSTANDING	Explain Deducer in R Programming	5

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9	UNDERSTANDING	Explain Spatial Analysis with suitable example	5
1	APPLY	Explain syntax of function, create “table” function in R to print the table of 2 to 10	10
2	APPLY	Explain following functions grep(), sub(), summarize(), llist(),	10

