

**Bharati Vidyapeeth (Deemed to be University), Pune**  
**Centre for Distance and Online Education**  
**School of Distance Education**

<b>Name of the Assignment Setter:</b>		<b>Dr. Rajendra S. Pujari</b>
<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b> <b>VI</b>
<b>Subject:</b>	<b>Data Warehousing and Data Mining</b>	
<b>Q.1)</b>	Attempt ANY ONE of the Following <b>(1000 Words)</b>	
	a) Define data warehouse. Explain architecture of DW.	
	b) Differentiate between OLTP & OLAP.	
<b>Q.2)</b>	Attempt ANY TWO of the Following <b>(800 Words)</b>	
	a) Explain data pre-processing in detail.	
	b) What is data mining? Explain applications of DM.	
	c) Explain data modeling.	
	d) Explain KDD process of data mining.	
<b>Q.3)</b>	Write Short Notes on <b>(ANY TWO)</b>	
	a) Explain apriori algorithm with example.	
	b) What is K-Means? Explain.	
	c) Discuss classification with suitable example.	
	d) Explain FP-Tree algorithm.	
* * * * *		

**Bharati Vidyapeeth (Deemed to be University), Pune**  
**Centre for Distance and Online Education**  
**School of Distance Education**

<b>Name of the Assignment Setter:</b>		<b>Dr. Ayesha R. Mujawar</b>	
<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b>	<b>VI</b>
<b>Subject:</b>	<b>Web Programming (PHP)</b>		

<b>Q.1)</b>	Attempt ANY ONE of the Following <b>(1000 Words)</b>	<b>(10)</b>
	a) List different types of user defined functions in PHP. Explain any one of them in detail with suitable example.	
	b) What is an array function in PHP? What are the different types of array in PHP? Explain any one of them in detail.	
<b>Q.2)</b>	Attempt ANY TWO of the Following <b>(800 Words)</b>	<b>(12)</b>
	a) Explain various data types in PHP.	
	b) Differentiate between session and cookie.	
	c) Explain the following string functions in PHP with example i) str_replace() ii) ucwords() iii) strlen()	
	d) Discuss if else statement and the conditional operator in PHP with suitable example.	
<b>Q.3)</b>	Write Short Notes on <b>(ANY TWO)</b>	<b>(08)</b>
	a) GET and POST method.	
	b) Date and time functions in PHP.	
	c) Static variables in PHP.	
	d) Super global variables in PHP.	

\* \* \* \* \*

**Bharati Vidyapeeth (Deemed to be University), Pune**  
**Centre for Distance and Online Education**  
**School of Distance Education**

<b>Name of the Assignment Setter:</b>		<b>Dr. Babasaheb D. Patil</b>	
<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b>	<b>VI</b>
<b>Subject:</b>	<b>Software Project Management</b>		
<b>Q.1)</b>	<b>Attempt ANY ONE of the Following (1000 Words)</b>		
	<b>a)</b>	Explain the concept of project and project management. Discuss the importance and characteristics of a project and explain why software projects are different from other projects. Describe the phases of project management life cycle in detail.	
	<b>b)</b>	Explain the role and responsibilities of a Project Manager. Discuss the project management framework and explain the use of software tools such as Microsoft Project in managing software projects.	
<b>Q.2)</b>	<b>Attempt ANY TWO of the Following (800 Words)</b>		
	<b>a)</b>	Explain project planning in detail. Discuss the main steps involved in project planning and explain how Work Breakdown Structure (WBS) helps in planning a software project.	
	<b>b)</b>	Explain project scheduling and time management. Discuss network planning models, Critical Path Method (CPM), PERT, and Gantt charts.	
	<b>c)</b>	Explain project cost management. Discuss various traditional cost estimation techniques and explain the COCOMO model.	
	<b>d)</b>	Explain project quality management. Discuss PMBOK quality standards and tools and techniques used for quality control in software projects.	
<b>Q.3)</b>	<b>Write Short Notes on (ANY TWO)</b>		
	<b>a)</b>	Features of Microsoft Project	
	<b>b)</b>	Scope Management	
	<b>c)</b>	Resource Planning	
	<b>d)</b>	Risk Identification	
* * * * *			

**Bharati Vidyapeeth (Deemed to be University), Pune**

**Centre for Distance and Online Education**

**School of Distance Education**

<b>Name of the Assignment Setter:</b>		<b>Dr. Babasaheb D. Patil</b>
<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b> <b>VI</b>
<b>Subject:</b>	<b>Data Analysis using R Programming (Elective 1 - B)</b>	
<b>Q.1)</b>	<b>Attempt ANY ONE of the Following (1000 Words)</b>	<b>(10)</b>
	<b>a)</b>	Explain the concept of probability in detail. Discuss types of probability and explain Addition Theorem and Multiplication Theorem with suitable examples.
	<b>b)</b>	Describe Normal Distribution and Poisson Distribution. Explain their properties and applications in real-life data analysis. Illustrate how random numbers can be generated for these distributions.
<b>Q.2)</b>	<b>Attempt ANY TWO of the Following (800 Words)</b>	<b>(12)</b>
	<b>a)</b>	Explain Discrete and Continuous Random Variables. Discuss probability mass function (PMF) and probability density function (PDF) with examples.
	<b>b)</b>	Explain the procedure of hypothesis testing. Discuss null hypothesis, alternative hypothesis, level of significance, and types of errors.
	<b>c)</b>	Describe Binomial Distribution in detail. Explain its assumptions, mean, variance, and applications.
	<b>d)</b>	Explain the basics of R programming language. Discuss arithmetic operations, control structures, and functions in R with suitable examples.
<b>Q.3)</b>	<b>Write Short Notes on (ANY TWO)</b>	<b>(08)</b>
	<b>a)</b>	Analysis of Variance (ANOVA)
	<b>b)</b>	Factor Analysis
	<b>c)</b>	Control structures in R
	<b>d)</b>	Random number generation in R
* * * * *		

**Bharati Vidyapeeth (Deemed to be University), Pune**

**Centre for Distance and Online Education**

**School of Distance Education**

<b>Name of the Assignment Setter:</b>	<b>Prof. Riyajjudin Y. Mujawar</b>
---------------------------------------	------------------------------------

<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b>	<b>VI</b>
-------------------	------------	------------------	-----------

<b>Subject:</b>	<b>Information Security Administration (Elective 2 - B)</b>
-----------------	---

<b>Q.1)</b>	Attempt ANY ONE of the Following <b>(1000 Words)</b>	<b>(10)</b>
<b>a)</b>	Explain the role of an information security administrator.	
<b>b)</b>	What is mobile device security? Explain the need of Mobile device Security.	
<b>Q.2)</b>	Attempt ANY TWO of the Following <b>(800 Words)</b>	<b>(12)</b>
<b>a)</b>	Suggest a LAN setup for a medical shop in your area. Discuss various steps involved in internet connection sharing.	
<b>b)</b>	What is Proxy Server? Discuss proxy server setup process. Explain different security issues in WAN.	
<b>c)</b>	Describe internet security in details. Explain print server security measures.	
<b>d)</b>	How to manage and secure a Desktop PC? Explain Web server security measures.	
<b>Q.3)</b>	Write Short Notes on <b>(ANY TWO)</b>	<b>(08)</b>
<b>a)</b>	Boot Server	
<b>b)</b>	Website Hosting	
<b>c)</b>	DNS Server	
<b>d)</b>	Mail Server	

\* \* \* \*

**Bharati Vidyapeeth (Deemed to be University), Pune**  
**Centre for Distance and Online Education**  
**School of Distance Education**

<b>Name of the Assignment Setter:</b>		<b>Dr. Dhanshri V. Sahasrabuddhe</b>	
<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b>	<b>VI</b>
<b>Subject:</b>	<b>Introduction to Data Science (Elective 3 - B)</b>		
<b>Q.1)</b>	<b>Attempt ANY ONE of the Following (1000 Words)</b>		
	<b>a)</b>	Explain the concept of Machine Learning. Explain types of machine learning algorithms with proper cases.	
	<b>b)</b>	What is classification? Explain any three classification algorithms with proper case studies of application.	
<b>Q.2)</b>	<b>Attempt ANY TWO of the Following (800 Words)</b>		
	<b>a)</b>	Explain the concept of a neural network. Explain building blocks of neural network.	
	<b>b)</b>	Explain logistic regression. Differentiate between to algorithms of classification- Linear Regression and Logistic Regression.	
	<b>c)</b>	Explain clustering. Differentiate between Agglomerative and Divisive Hierarchical Clustering.	
	<b>d)</b>	Explain role of prediction in Data Science. Discuss different methods to calculate accuracy of prediction.	
<b>Q.3)</b>	<b>Write Short Notes on (ANY TWO)</b>		
	<b>a)</b>	Backward and forward neural networks	
	<b>b)</b>	Feature Scaling/Selection	
	<b>c)</b>	Linear Regression	
	<b>d)</b>	EDA	
* * * *			

**Bharati Vidyapeeth (Deemed to be University), Pune**  
**Centre for Distance and Online Education**  
**School of Distance Education**

<b>Name of the Assignment Setter:</b>		<b>Dr. Rajendra S. Pujari</b>
<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b> <b>VI</b>
<b>Subject:</b>	<b>Knowledge Management (Elective 4 - B)</b>	
<b>Q.1)</b>	<b>Attempt ANY ONE of the Following (1000 Words)</b>	
	<p><b>a)</b> What is knowledge? Discuss to different characteristics of Knowledge.</p>	
	<p><b>b)</b> Explain knowledge capture.</p>	
<b>Q.2)</b>	<b>Attempt ANY TWO of the Following (800 Words)</b>	
	<p><b>a)</b> Describe knowledge management life cycle.</p>	
	<p><b>b)</b> Explain the need of KM in an organization.</p>	
	<p><b>c)</b> Explain the types of knowledge with diagram.</p>	
	<p><b>d)</b> Explain interview as tool of capturing knowledge.</p>	
<b>Q.3)</b>	<b>Write Short Notes on (ANY TWO)</b>	
	<p><b>a)</b> Discuss various tools of knowledge management.</p>	
	<p><b>b)</b> What is expert system? How it works.</p>	
	<p><b>c)</b> Discuss the characteristics of knowledge expert.</p>	
	<p><b>d)</b> Explain Delphi &amp; Brain storming tool.</p>	
* * * * *		

**Bharati Vidyapeeth (Deemed to be University), Pune**  
**Centre for Distance and Online Education**  
**School of Distance Education**

<b>Name of the Assignment Setter:</b>		<b>Dr. Ayesha R. Mujawar</b>
<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b> <b>VI</b>
<b>Subject:</b>	<b>Lab on Web programming with Project</b>	

<b>Q.1)</b>	Attempt <b>ANY THREE</b> of the Following <b>(1000 Words)</b>		<b>(30)</b>
	<b>a)</b>	Write a program to find whether a number is Armstrong or not.	
	<b>b)</b>	Write a PHP script to accept personal details of student (rno, name, class) on first page. On second page accept marks of six subjects (out of 100). On third page print marklist (rno, name, class, marks, total, percentage)	
	<b>c)</b>	Design a web page that accepts inputs (username and password) and authenticate the username and password from a given database using PHP.	
	<b>d)</b>	Write PHP Program to display total number of characters, tabs, spaces from existing file.	
	<b>e)</b>	Design a registration page and validate phone number and email id in PHP.	
	<b>f)</b>	Write a PHP function that checks whether a passed string is a palindrome or not.	

\* \* \* \* \*

**Bharati Vidyapeeth (Deemed to be University), Pune**  
**Centre for Distance and Online Education**  
**School of Distance Education**

<b>Name of the Assignment Setter:</b>		<b>Dr. Suvarna M. Patil</b>	
<b>Programme:</b>	<b>BCA</b>	<b>Semester:</b>	<b>VI</b>
<b>Subject:</b>	<b>Lab on Data Visualization</b>		
<b>Q.1)</b>	<b>Attempt ANY THREE of the Following (1000 Words)</b>		<b>(30)</b>
	<p><b>a)</b> Create a data frame for Product with Product Id, Product Name, Price, Quantity. Find mean, median, mode of Price. Show minimum price and maximum price. Display all statistical information about the data frame.</p>		
	<p><b>b)</b> Use Employee CSV file. Display top 10 records, last 10 records, Display top 20 and last 20 records, show random 20 records.</p>		
	<p><b>c)</b> Use Employee file, add some outliers to the data. Show in Box plot.</p>		
	<p><b>d)</b> Use a CSV file Iris, draw a box plot for three species, also add a two three outliers in the data and show with Box plots.</p>		
	<p><b>e)</b> Use Iris file and draw histogram for three species.</p>		
* * * * *			