

## **School of Engineering and Applied Science**

### **B.Tech IT Semester VI Major Assignment**

#### **Important Instructions to Student:**

1. Last date for Assignment Submission – **30-May-2020**
2. This assignment carries major **weightage of 50 Marks**. Kindly prepare it very carefully and in a very detailed manner. For any help in this regard, kindly contact your faculties.
3. Front Page of Assignment should clearly include details like:
  - a. Your Name
  - b. UID Number
  - c. Subject
  - d. Class
  - e. Semester

In the event of no such information, we may not be able to assign marks for your assignment, for which responsibility lies with students.
4. You can write and submit assignment through any of the following options:
  - a. Handwritten Assignment – Prepare softcopy of your assignment through suitable apps and send the assignment as one PDF to your respective faculty as mentioned above.
  - b. Typed Assignment – Prepare Assignment with following font setting and submit the assignment to your respective faculty as mentioned above.
    - i. Font Type – Times New Roman or Arial
    - ii. Headings – Font Size 14
    - iii. Text (Except Heading) – 12
    - iv. Normal Margin and Line Spacing maximum 1.15
5. After this lockdown ends, you all have to submit the physical assignment copies to your respective Faculties. So, keep the assignment carefully for submission.
6. While submitting assignment through email, kindly use subject line as Name of the Programe\_Name of Course/Branch\_Semester\_Name o the the Subject. For Example B.Tech.\_Mechanical\_VI\_Theory of Machines

<b>Computer Graphics</b> <b>Dr. Sailesh Iyer</b>		<b>Mode of Submission</b> <b>Google form:</b> <a href="https://forms.gle/Bx6f5cxrjqEgp8XC8">https://forms.gle/Bx6f5cxrjqEgp8XC8</a> <b>Subject Line:</b> B.Tech IT/VI CG
1.	Explain at least 5 applications of Computer Graphics in detail.	
2.	List and Explain Bresenham's Algorithm with derivation for slope between 0 and 1.	
3.	Plot line using DDA Line Drawing Algorithm for the endpoints (5,5) and (9,15).	
4.	Explain the terms: Graphics Driver, Graphics Mode, Resolution, Pixel and Aspect Ratio.	
5.	Explain Pivot point rotation and Fixed Point Scaling.	
<b>Cryptography Network &amp; Security</b> <b>Prof. Poonam Chakravarty</b>		<b>Mode of Submission:</b> <b>Google form:</b> <a href="https://forms.gle/6Bd8FcFq7TC8mmJP9">https://forms.gle/6Bd8FcFq7TC8mmJP9</a> <b>Subject Line:</b> B.Tech IT/VI_CNS
1.	Explain Digital signature model process, importance and limitations of it in details.	
2.	Explain Message Authentication Code(MAC) model process, importance and limitations in details.	
3.	What is Virus? Explain all types of virus and effects of virus in details.	
4.	What are the main security threats and issues can occurs in online shopping? Which steps we can take to overcome them explain in details with example.	
5.	Explain how does AES work to secure your file transmission? Write imitations and weakness of it.	
<b>Data Warehousing and Mining</b> <b>Dr. Sailesh Iyer</b>		<b>Mode of Submission:</b> <b>Google Form:</b> <a href="https://forms.gle/JuUf6n5Sof1iBoj9">https://forms.gle/JuUf6n5Sof1iBoj9</a> <b>Subject Line:</b> B.Tech IT/VI DWDM
1.	Explain Data Warehousing.	
2.	Explain OLAP Cube and its operations.	
3.	Explain KDD process.	
4.	Compare OLAP and OLTP.	
5.	What is Market Basket Analysis? Explain the terms in it with an example.	
<b>Network Administration</b> <b>Prof. Poonam Chakravarty</b>		<b>Mode of Submission:</b> <b>Google Form:</b> <a href="https://forms.gle/HT2hR99xnD7ehDnC7">https://forms.gle/HT2hR99xnD7ehDnC7</a> <b>Subject Line:</b> B.Tech IT/VI_NA
1.	Write down steps to configure RIP in CISCO Packet tracer in details.	
2.	Write down steps to configure OSPF in CISCO Packet tracer in details.	
3.	Write down steps to configure EIGRP in CISCO Packet tracer in details.	
4.	Write down steps to configure RIP version 2 in CISCO Packet tracer in details.	
5.	What is difference between static and dynamic IP address? Write down steps to configure it using sample topology in CISCO packet tracer.	

<b>ASP.NET WITH C#</b>  <b>Prof. Yagnesh Rathod</b>		<b>Mode of Submission:</b>  <b>Google Form:</b> <a href="https://forms.gle/CKGLDi2FKMmtWUsp7">https://forms.gle/CKGLDi2FKMmtWUsp7</a>  <b>Subject Line: B.Tech IT VI AWC</b>
1.	Write a short note on “STATE MANAGEMENT”.	
2.	What is .NET framework? Explain various components of .NET framework	
3.	(i) Write ASP.NET code to display selected elements from the CheckBoxLayout on a Label control. Elements on the label must be separated by a whitespace.  (ii) Write ASP.NET code to send data entered in two textboxes from one web page to another web page. Display the data on two separate labels.	
4.	Explain all validation controls with example.	
5.	(i) Declare one TextBox control, one Button control, one Label control, and one RegularExpressionValidator control in an .aspx file. The submit() function checks if the page is valid. If it is valid, it returns "The page is valid!" in the Label control. If it is not valid, it returns "The page is not valid!" in the Label control. If validation fails, the text "The zip code must be 5 numeric digits!" will be displayed in the RegularExpressionValidator control.  (ii) Create a form which contains UID, Name, Branch and Semester. Insert the values into a database table.	
<b>Object Oriented Analysis and Design with UML</b>  <b>Prof. Jigar Pandya</b>		<b>Mode of Submission</b> <b>Google form:</b> <a href="https://forms.gle/EYRpqc66R8EPQNvw8">https://forms.gle/EYRpqc66R8EPQNvw8</a>  <b>Subject Line: B.Tech IT/VI_OOAADWU</b>
1.	Explain the concept of UML with the comparison between programming language and UML language. Explain Basic building block and Architecture of UML diagram.	
2.	Explain the Class and Object diagram concept with all notations. Draw the Class & Object diagrams for the project of Online Shopping System and explain both the diagrams in detail	
3.	Explain the Package and Sequence diagram concept with all notations. Draw the Package and Sequence diagram for the project of Online Shopping System and explain both the diagrams in detail.	
4.	Explain the Activity and Use case diagram concept with all notations. Draw the Activity and Use case diagram for the project of Hospital Management System and explain both the diagrams in detail.	
5.	Discuss component and sequence diagram in detail with example.	

NOTE: After completing your assignments, contact your respective faculty member and submit the assignment for assessment.