School of Engineering and Applied Science

Diploma CE/IT
Semester IV
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_IV_Theory of Machines

English Communication and Life Skills – IV Prof. Rakhi Pandey	Mode of Submission Email – rbs.raiuniversity@gmail.com Subject Line: Diploma CE/IT IV ECLS-IV
1.	Explain All Forms Of Tenses In Detail
2.	Explain 4 Stages Of Team Building In Detail
3	Explain The Following Interview: a. Panel interview b. Group interview c. Stress interview d. Exit interview e. Technical interview
4	Explain the Parts Of Speech In Detail
5.	Explain The All Degree forms Of In Detail

Data Communication & Networking Prof. Poonam Chakravarty	Mode of Submission: Google Form : https://forms.gle/fzko6bhMEJJqfNVa7 Subject Line: Diploma CE IV DCN
1.	What is Topology? Write down steps to configure all topologies in CISCO packet tracer. 1. Ring 2.Bus 3.Mesh 4.Tree 5.Hybrid 6.Star
2.	Explain IPV4 Header format in details with diagram also write difference between IPV4 and IPV6
3.	What is network? Explain advantages, disadvantages and all applications in details.
4.	Write down steps how to configure two devices in LAN and also give list of hardware and software used to connect devices.
5.	Explain the following terms in details. 1. Working of HTTP 2. Difference between Connection Oriented & connection less services 3. Cross cable and straight through cable with diagram 4. Difference between Hub & Switch 5. Difference between Router & Bridge

Introduction to Computer Organization and Architecture Prof. Hardik Patel	Mode of Submission: Google Form: https://forms.gle/pxPf24LUUht81S2g9 Subject Line: Diploma CE/IT IV ICOA
1.	What is the stored program architecture of a computer? Describe with an example
2	Write a program to evaluate the arithmetic statement 1. A*[B+C*(D+E)] 2. F*(G+H) (a) Using 3 address instructions (b) Using 2 address instructions (c) Using 1 address instructions (d) Using 0 address instructions
3.	Define four main component of CUP-- Data processing, Data Storage, Data Movement, Control on data.

4.	Describe following problem: the differences among sequential access, direct access, Random Access.
5.	What is micro-operation? list out and explain all type of micro-operation with diagram.

Basics Of Microprocessors & Its Architecture Prof. Hardik Patel	Mode of Submission: Google Form: https://forms.gle/y61ctK9tDi2CXVoF7 Subject Line: Diploma CE/IT IV BOMP
1.	What is status bit and flags in 8085 microprocessor? list out and explain different type of flag and working of status bits.
2.	Draw and explain pin diagram and architecture 8251 USART.
3.	list out and explain different type of instruction.
4.	Draw and explain pin diagram of 8255A PPI Pin
5.	Draw and explain pin diagram of 8279 keyboard/display and 8259 program interrupt controller.
6.	Draw and explain digital to analog convertor with Architecture.

Basic of Computer Graphics Prof. Dr. Sailesh Iyer	Mode of Submission: Google Form CE : https://forms.gle/PXCqhTiDpRj5cest5 Google Form IT : https://forms.gle/PsQ1sXDh96yiZzL58 Subject Line: Diploma CE/IT BCG
1.	Explain at least 5 applications of Computer Graphics in detail.
2.	List and Explain Bresenham's Algorithm for Slope<0.
3.	Plot line using DDA Line Drawing Algorithm for the endpoints (5,7) and (9,15).
4.	Explain the terms: Graphics Driver, Graphics Mode, Resolution, Pixel and Aspect Ratio.
5.	Write a short note on Audio, Video and Animation with suitable examples.

Software Engineering Prof. Yagnesh Rathod	Mode of Submission: Google Form: https://forms.gle/M8mRBKmer3BaqogN8 Subject Line: Diploma IT IV SE
1.	What is Software Requirement Specification (SRS)? Why is it important? List the characteristic of a good quality SRS? What contents can we include in it?
2	Explain Functional Requirement and Non Functional Requirement with example of Online Examination System.
3.	Prepare an SRS and Use Case diagram for a simple Library Management System.
4.	Explain white box and black box testing. Discuss all the testing strategies that are available.
5.	Software is to be developed for hotel management system in which information is provided for all type of activities conducted in hotel. The major users of the system are hotel staff, people who stay in the hotel and people who visit the restaurant. Information for the billing system, hotel account management, staff salary, hotel menu information, hotel room information is provided by software. Prepare Software Requirement Specification and Use Case Diagram.

	Mode of Submission:
Basics of Web Technology **Prof. Yagnesh Rathod**	**Google Form:** https://forms.gle/hkURHjWPxAMZaX5q7 **Subject Line:** Diploma IT IV BWT
1.	Explain types of lists in html with suitable example.
2	Write HTML code to design GUI form to accept student name, age, address, state, country, gender, hobbies and suggestion.
3.	Explain Switching techniques in detail.
4.	Explain E-mail Systems in detail.
5.	List out all the HTML tags and their functions you have studied in this subject.

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