



Assignment No: 1

Programme: _____

Semester: _____

Submitted by:-

Student Name :	
Enrollment No :	
Roll No. :	
Date of Submission:	

Submitted to:-

**Department of Computer Science and Applications (CSA)
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Programme: B.Tech (CS) VIth Sem
Course Name: Digital Image processing
Course Code: BTCS-321
Assignment No: 1
Due date of submission: 12.03.2018

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1

- a) What do you mean by DIP? Explain in detail.
- b) What are the components of image processing system? Explain.

Q.2

- a) What are the elements of visual perception? Discuss in detail.
- b) Explain the applications of DIP in detail.



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Programme: B.Tech (CS) VIth Sem

Course Name: Software Engineering

Course Code: BTCS-322

Assignment No: 1

Due date of submission: 12.03.2018

Instructions

1. Write the responses to the assignment in your own handwriting.
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3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Question No. 1.

- a) As we have discussed some of the fundamentals of software engineering in the class, now, you will learn more if you explain, what is software and software engineering in detail with suitable examples.
- b) Discuss the following terminologies related to software engineering.
 - i. Deliverables and Milestones
 - ii. Product and Process
 - iii. Module and Software Components

Question No. 2

- a) State the difference between program and software. Why have documents and documentation become very important? Discuss.
- b) Distinguish between generic and customized software products. Also, Discuss major areas of the applications of the software.



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Programme: B.Tech (CS) VIth Sem

Course Name: Compiler Design

Course Code: BTCS-323

Assignment No: 1

Due date of submission: 12.03.2018

Instructions

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Q.1

a) As you are aware of Compiler. So, you can define it and explain its phases in detail with the help of suitable example. Do it.

b) You are aware of DFA. So, you can design DFA for the language defined over $\Sigma = \{0,1\}$ which accepts all the strings starting and ending with same alphabet. Design it.

Q.2

a) You are aware of Regular Expression. Write regular expression for the following languages:

1. Containing all the palindrome strings defined over $\Sigma = \{0, 1\}$
2. Containing all the strings ending with 11 defined over $\Sigma = \{0, 1\}$

b) You are aware of DFA, NFA and Regular Expression. So, you can design NFA and DFA for the regular expression given below:

$(0+1)^* (010+11) (1)^* (1+0)$

Design it.



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Programme: B.Tech (CS) VIth Sem

Course Name: Java Programming

Course Code: BTCS-324

Assignment No: 1

Due date of submission: 12.03.2018

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1

- a) Explain all the features of Java.
- b) Explain all the data types of Java in detail.

Q.2

- a) Explain all the branches statement in Java with syntax and suitable example of each.
- b) Explain all the operators of Java in detail.



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Programme: B.Tech (CS) VIth Sem

Course Name: Cryptography & Network Security

Course Code: BTCS-325

Assignment No: 1

Due date of submission: 12.03.2018

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1

(a): As you know, in *classical cryptography*, the various parameters used by a decryption *algorithm* are derived from the same secret key that was used in the *encryption algorithm*. Explain the concept of classical encryption techniques?

(b) Differentiate between active attacks and passive attacks in brief.

Q.2

(a): As we know that there are three layers of OSI network security. So can you explain the security mechanism in detail?

(b) As we know that security services are the main component to secure our data. So can you explain types of security services it will help you learn more about the topic?



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Programme: B.Tech (CS) VIth Sem
Course Name: Industrial Management
Assignment No: 1
Due date of submission: 12.03.2018

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1

- a) “Management is to the business, what mind is to a human being.” Explain this statement.
- b) What are the essential characteristics of the principles of management? Do they suffer from any limitation?

Q.2

- a) “Planning is looking ahead, and control is looking back.” Explain.
- b) Explain in detail about 14 principles propounded by Henry Fayol.