SH-III/Com. Sc.-302C-6/19

B.Sc. 3rd Semester (Honours) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31512 **Course Code : SH-CSC-302/C-6**

Course Title: Operating System

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

1. Answer *any five* questions: 1×5=5

(a) Distinguish between kernel and shell of an operating system.

(b) Name some computing resources in connection with operating system.

(c) State an application of real-time operating system.

(d) What do you mean by synchronization?

(e) What do you mean by nonpreemptive process scheduling?

(f) Distinguish between physical and virtual address space.

(g) Write the full form of IPC.

(h) What is device driver?

2. Answer *any two* questions: 5×2=10

(a) Write a short note on various categories of operating systems.

(b) Discuss the life cycle of a process with a suitable block diagram.

(c) Describe address translation during paging in brief.

(d) Discuss various issues associated to device management by operating system.

3. Answer *any one* question: 10×1=10

(a) Write a short note on critical section problem. Discuss the Round-Robin CPU scheduling in brief with a suitable example. 5+5=10

(b) Describe various methods for file allocation with their merits and demerits. 10

———

SH-III/Com. Sc.-303C-7/19

B.Sc. 3rd Semester (Honours) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31513 **Course Code : SH-CSC-303/C-7**

Course Title: Computer Network

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions: 1×5=5

(a) What is Protocol?

(b) Define DNS.

(c) Write full form of WWW.

(d) Write full form of HTTP.

(e) Define TDM.

(f) What is data rate?

(g) What is parallel transmission?

(h) What is Internet?

2. Answer *any two* questions: 5×2=10

(a) Write short note on CSMA/CD.

(b) Write short note on flow control.

(c) Compare LAN, WAN, MAN.

(d) Compare circuit switching and packet switching.

3. Answer *any one* question: 10×1=10

(a) Write the working of ISO OSI model.

(b) Write short notes on: 5×2=10

(i) Wireless communication

(ii) IP Protocol

———

SH-III/Com. Sc.-304/GE-3/19

B.Sc. 3rd Semester (Honours) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31514 **Course Code : SH-CSC-304/GE-3**

Course Title: Computer Network & Internet Technology

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions: 1×5=5

(a) What is Telnet?

(b) Difference between Ethernet and token ring.

(c) Write example of guided media and unguided media LAN.

(d) What is Web browser?

(e) What is the full form of IGMP and ARP?

(f) What is NOS? Give example.

(g) What is STP? Which connector used in STP?

(h) What is Bandwidth?

2. Answer *any two* questions: 5×2=10

(a) (i) Write difference between Circuit Switching and Packet Switching.
(ii) Write difference between Hub and Switch.

(b) Write short notes about:
(i) Router
(ii) Gateway

(c) Discuss about:
(i) URL
(ii) ISP

(d) (i) What is VALIGN attribute in HTML.
(ii) What is marquee behaviour? Discuss them.

3. Answer *any one* question: 10×1=10

(a) Briefly describe about server-client and peer to peer Architecture.

(b) What is container and empty tag in HTML? Give name of three tags each type and write their function. 4+(3+3)=10

———

B.Sc. 3rd Semester (Honours) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31514 **Course Code : SH-CSC-304/GE-3**

Course Title: Multimedia & Application

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

1. Answer *any five* questions: 1×5=5

(a) What is Bitmap?

(b) Give full form of PNG and GIF.

(c) What is MMS?

(d) Difference between Bitmap and Vector image.

(e) What is Animation?

(f) What is Interactive multimedia?

(g) Mention the major use of multimedia.

(h) Mention four image formats used in multimedia.

2. Answer *any two* questions: 5×2=10

(a) What is MIDI? How is a basic MIDI message structure?

(b) What is Multimedia and Hypermedia? Distinguish between these two concepts.

(c) (i) Difference between MIDI vs. Digital Audio.

(ii) Difference between Digital and Analog Video.

(d) Write about Morphing.

3. Answer *any one* question: 10×1=10

(a) Describe about Vector and Bitmap graphics.

(b) Describe 2D and 3D animation technique briefly.

———

SH-III/Com. Sc.-304/GE-3/(PR)/19

B.Sc. 3rd Semester (Honours) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31524 **Course Code : SH-CSC-304/GE-3**

Course Title: Multimedia and Application

Time: 2 Hours **Full Marks: 15**

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Perform *any one*:

1. To create an animation to represent the growing moon.

2. To create an animation to indicate a ball bouncing on steps.

3. To create an animation to simulate movement of a cloud.

4. Draw an animation to show cartoon with a message.

5. Draw an animation to show sunrise and sunset.

6. Draw an animation to help to teach a poem or a song.

7. Create an animation to show the ripple effect.

8. Draw an animation to show two boats sailing in river.

———

B.Sc. 3rd Semester (Honours) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31524 **Course Code : CSC-304/GE-3**

Course Title: Computer Network & Internet Technologies

Time: 2 Hours **Full Marks: 15**

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

LNB + VIVA = 05, Experiment = 10.

Perform *any one*:

1. Write a HTML code to generate following output:

Registration form

User name	
Password	
Confirm password	
First name	
Last name	
Email	

Save Reset

2. Looking at the following screen which divides the browser screen into two frames with the help of HTML code. The need is to give information about Rabindranath

R. N. Tagore
Gitanjali

Create two files and load the files so that they will be displayed into two frames as shown using HTML code.

3. Design a webpage using HTML in which the following features will be shown:

(a) Give the title of that webpage as season.

(b) Background colour as pink and text-color as Blue.

(c) Write down a heading as "Seasons of India". Then write the names of any three seasons using bullets.

(d) Insert an image at the end of list.

(e) Scroll the text season of India below the image.

4. Create an HTML document with table to show your Bio-data.

5. Find the factorial of a number n using Javascript.

6. Write a HTML code to generate following output:

Country	Population (in crores)	
India	1998	85
	1999	90
	2000	100
USA	1998	30
	1999	35
	2000	40

7. Print a table of numbers from 5 to 15 and find out the squares using Javascript.

8. Print the largest of 3 numbers using Javascript.

9. Create a HTML document with table to show your class routine.

———

SH-III/Com. Sc.-305/SEC-1/19

B.Sc. 3rd Semester (Honours) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31515 **Course Code : SH-CSC-305/SEC-1**

Course Title: Programming in Python

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions: 1×5=5

(a) What is flowchart?

(b) What is top down programming approach? Give example.

(c) What is decision table?

(d) What is the use of '**' operator in python?

(e) Name two types of scalar object python has.

(f) How list are differ from tuple?

(g) What is interpreter?

(h) Write a python code segment to print 1 to 10 except 5 using 'for' statement.

2. Answer *any two* questions: 5×2=10

(a) What is tuple? How the literal of tuple are written? Give example.

(b) Explain with an example of while loop, break statement and continue statement.

(c) Draw the flowchart to accept three distinct numbers, find greatest and show result.

(d) Predict the output and justify your answer:

(i) – 11%9

(ii) 7·7//7

(iii) (200-70)*10/5

(iv) not "False"

(v) 5*1**2.

3. Answer *any one* question: 10×1=10

(a) Write a python program to initialize two matrices by taking data from the keyboard. Multiply them and show the result.

(b) Write an algorithm to check whether a given number is prime or not. Write a python program to print first *n* prime numbers.

———

B.Sc. 3rd Semester (Honours) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31515 **Course Code : SH-CSC-305/SEC-1**

Course Title: Unix/Linux Programming

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions: 1×5=5

(a) What is the difference between Linux and Unix?

(b) What is bash shell?

(c) Write full form of GUI and CLI?

(d) What are kind of permissions in Linux?

(e) What are environment variables?

(f) How can you append one file to another in Linux?

(g) What is the different file systems used in Linux?

(h) Can we use Linux OS through windows OS? How?

2. Answer *any two* questions: 5×2=10

(a) What are the purposes of following commands in Unix : grep, cat, Is, who, date.

(b) Explain briefly different shells used in different Linux operating systems.

(c) Write a bash shell script to find sum of odd numbers between 1 to 20.

(d) Why Linux considered as more secured than other OS.

3. Answer *any one* question: 10×1=10

(a) Explain some Linux Distros along with their usage.

(b) Write a shell script to check whether a given number is prime of not. Write a shell program to check whether a given number is palindrome or not.

———

SH-III/Com. Sc.-305/SEC-1/(PR)/19

B.Sc. 3rd Semester (Honours) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31525 **Course Code : SH-CSC-305/SEC-1**

Course Title: Programming in Python

Time: 2 Hours **Full Marks: 15**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Attempt *any one* of the following:

1. Using for loop, print a table of Celsius/Fahrenheit equivalences. Let c be the Celsius temperatures ranging from 0 to 100, for each value of c, print the corresponding Fahrenheit temperature.

2. Using while loop, produce a table of sins, cosines and tangents. Make a variable x in range from 0 to 10 in steps of 0·2. For each value of x, print the value of sin(x), cos(x) and tan(x).

3. Write a program that takes a positive integer n and then produces n lines of output shown as follows. For example enter a size: 5

```
*
* *
*   *
*     *
* * * * *
```

4. Write a function that takes an integer n as input and calculates the value of 1 + 1/1! +1/2! + 1/3! + … + 1/n!.

5. Write a function that takes a string input and checks if it's a palindrome or not.

6. Write a list function to convert a string into a list, as in list ("abc") gives [a, b, c].

7. Write a program to generate Fibonacci series.

8. Write a program to compare three numbers and print the largest one.

9. Write a program to point prime factors of a given number.

10. Write a method to calculate LCM of two numbers.

———

B.Sc. 3rd Semester (Honours) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31525 **Course Code : SH-CSC-305/SEC-1**

Course Title: Unix/Linux Programming

Time: 2 Hours **Full Marks: 15**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer *any one* of the following:

1. Write a shell script to check if the number entered at the command lines is prime or not.

2. Write a shell script to display the multiplication table of any given number.

3. Write a shell script to find the sum of digits of a given number.

4. Write a shell script to find the LCD (least common divisor) of two numbers.

5. Write a shell script to perform the tasks of basic calculator.

6. Write a shell script to find the power of a given number.

7. Write a shell script to find the binominal coefficient C(n, x).

8. Write a shell script to find the permutation P(n, x).

9. Write a shell script to check whether the number is Armstrong or not.

10. Write a shell script to check whether the file have all the permissions or not.

———

SP-III/Com. Sc.-301/C-1C/19

B.Sc. 3rd Semester (Programme) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31518 **Course Code : SP-CSC-301/C-1C**

Course Title: Operating Systems

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions: 1×5=5

(a) Why operating system is called as "Resource Manager"?

(b) Write differences between MS-DOS and UNIX.

(c) What do you mean by IPC?

(d) Write advantages of multiprocessing system.

(e) What do you mean by thrashing?

(f) Write differences between physical and logical addresses.

(g) What do you mean by throughput of an Operating System?

(h) What is page fault?

2. Answer *any two* questions: 5×2=10

(a) Explain layered structure of operating system. Write down its advantages and disadvantages. 3+2=5

(b) Define PCB. Write differences between process and program. Explain different components of PCB. 1+1+3=5

(c) What is system call? Explain any four system calls briefly. 1+4=5

(d) What is shell? Explain basic types of shells in Unix. 1+4=5

3. Answer *any one* question: 10×1=10

(a) What do you mean by CPU Scheduling? Explain the important criteria of CPU Scheduling. Explain SJF Scheduling with example. 2+4+4=10

(b) What is page replacement? Explain the basic concept of page replacement mechanism with example. What is Belady's anomaly? 2+6+2=10

———

SP-III/Com. Sc.-301/C -1C/(PR)/19

B.Sc. 3rd Semester (Programme) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31528 **Course Code : SP-CSC-301/C-1C**

Course Title: Operating Systems

Time: 2 Hours **Full Marks: 15**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

LNB + VIVA = 05, Experiment = 10.

1. Perform *any one* experiment:

(a) Write a program in C to calculate turnaround time of each process in a system of 5 processes.

(b) Write a program in C to calculate average waiting time in SJF scheduling.

(c) Write a shell script to check a no. is prime or not.

(d) Write a shell script to check a no. is palindrome or not.

(e) Write a shell script to find HCF of two nos.

(f) Write a shell script to find power of a given number.

(g) Write a shell script to check whether the file has all permissions or not.

(h) Write a shell script to marge the contents of two files and sort them and display them.

(i) Write a shell script to check a no. is Fibonacci term or not.

———

SP-III/Com. Sc.-304/SEC-1/19

B.Sc. 3rd Semester (Programme) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31510 **Course Code : SP-CSC-304/SEC-1**

Course Title: Multimedia and Applications

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are equal value.

1. Answer *any five* questions: 1×5=5

(a) What are the areas where multimedia applications are used?

(b) What is MPEG format?

(c) Define WAVE format.

(d) Write name of two video file format.

(e) What is animation?

(f) Write the name of graphics categories.

(g) What is warping?

(h) What is quick time format?

2. Answer *any two* questions: 5×2=10

(a) (i) What is the main reason for popularity of MP3 format?

(ii) Describe shock wave format?

(b) Write the principle of animation.

(c) Write about morphing.

(d) Define wave format. How are 3-D animation classified?

3. Answer *any one* question: 10×1=10

(a) Describe about Vector Drawing. How does Vector Drawing work?

(b) Describe 2D and 3D animation technique briefly.

———

B.Sc. 3rd Semester (Programme) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31510 **Course Code : SP-CSC-304/SEC-1**

Course Title: Office Automation Tools

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are equal value.

1. Answer *any five* questions: 1×5=5

(a) What is Pivot table in excel?

(b) What is fill handle?

(c) What is conditional formatting?

(d) Define mail merge.

(e) What is presentation?

(f) What is Animation?

(g) Difference between workbook and worksheet.

(h) What is Word Art?

2. Answer *any two* questions: 5×2=10

(a) Short note about:

(i) Hyperlink

(ii) Header and Footer in word

(b) Discuss the following term in Excel:

(i) Filter

(ii) Chart

(c) Discuss the following term in Powerpoint:

(i) Place holder

(ii) Slide Transition

(iii) Custom show 1+2+2=5

(d) Write three names of animation effect and write function of any two.

3. Answer *any one* question: 10×1=10

(a) What is Function in Excel? Write any four functions name with example. 2+(4×2)=10

(b) (i) Write the step of mail merge.

(ii) Write the step to add background picture on a slide. 5+5=10

———

SP-III/Com. Sc.-304/SEC-1A/(PR)/19

B.Sc. 3rd Semester (Programme) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31520 **Course Code : SP-CSC-304/SEC-1A**

Course Title: Office Automation Tools

Time: 2 Hours **Full Marks: 15**

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

LNB + VIVA = 05, Experiment = 10

Perform *any one*.

1. Create a list of 10 best friends. Create a Thank You Letter. Use mail merge feature of MS Word to create a Thank You Letter for each of your friends.

2. Create your BIO data in MS Word.

3. Perform following calculation in MS Excel:

Place	Target	Production	Achievement Grade
Delhi	4800	6000	125%
Kolkata	5000	4500	90%
Mumbai	5000	5000	100%

(a) Calculate grade A + for more than 100% achievement; Grade A for 100% achievement and B for below 100% achievement.

(b) Create a Bar Chart to show the target and production of three places.

4. Create table in Excel:

Payroll No.	Name	Salary (Rs.)	Part-time (Rs.)	Accounts
101	P. Roy	10,000	900	1,800
102	S. Sen	14,000	800	1,600
103	A. Pal	18,000	700	1,700
104	K. Basu	15,000	600	1,600
105	R. Singh	17,000	500	1,800

(a) Using Conditional Formatting list out employees who got

(i) less than Rs. 15,000 as salary,

(ii) more than Rs. 700 as part-time,

(iii) between Rs. 1,600 and 1,800.

(b) Calculate Total Salary and Maximum, minimum salary using function.

5. Create 4 slides on annual day of your college and perform the following:

- Give Header and Footer
- Give background color
- Insert Picture from clip art
- Insert Slide number
- Insert animation effect
- Link first slide with the third

6. Create a presentation about Computer Generation. The presentation should contain 5 slides, one for each generation. The Text should appear flying in when slide show. Give background color (each different) and insert slide number.

7. Create a marksheet in MS Excel. Using column → Name, Roll, Sub 1, Sub 2, Sub 3, Total, Percentage, Grade. Insert 6 records.

Calculate Total and Percentage using function. Calculate Grade using function for following conditions:

(i) marks > = 90, AA

(ii) marks > = 60, A

(iii) marks > = 45, B

(iv) marks > = 30, C

(v) marks < 30, D

———————

B.Sc. 3rd Semester (Programme) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31520 **Course Code : SP-CSC-304/SEC-1B**

Course Title: Multimedia and Application

Time: 2 Hours **Full Marks: 15**

Candidates are required to give their answers in their own words as far as practicable.

The questions are equal value.

LNB + VIVA = 05, Experiment = 10

Perform *any one*.

1. (a) To create an animation to represent the growing moon.

(b) Create an animation to simulate movement of cloud.

(c) To Draw the FAN Blades and to give proper animation.

(d) Draw an animation to show a fainting banana.

(e) Create an animation having five images having fade-in-fade-out effect.

(f) To design a visiting card containing at least one graphic and text information.

(g) Draw an animation to show sunrise and sunset.

(h) Create an animation to simulate a ball hitting another ball.

———

SP-III/Com. Sc.-301C-5/(PR)/19

B.Sc. 3rd Semester (Honours) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31521 **Course Code : SH-CSC-301C-5**

Course Title: Data Structures Lab

Time: 2 Hours **Full Marks: 15**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are equal value.

Experiment – 10, LNB + Viva – 5.

1. Perform *any one* experiment:

(a) Write a program to efficiently represent a sparse matrix.

(b) Write a program to merge two sorted arrays.

(c) Write a program to show various operations of a stack.

(d) Write a program to show various operations of a circular queue.

(e) Write a program to construct a binary search tree.

(f) Write a program to remove the least valued node from a linked list.

(g) Write a program to reverse a linked list.

(h) Write a program for binary search.

(i) Write a program for insertion sort.

(j) Write a program for selection sort.

———

SH-III/Com. Sc.-302C -6/(PR)/19

B.Sc. 3rd Semester (Honours) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31522 **Course Code : SH-CSC-302/C-6**

Course Title: Operating System (Lab)

Time: 2 Hours **Full Marks: 15**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

1. Perform *any one* experiment:

(a) W.A.P. to generate first 20 Fibonacci numbers using recursion

(b) W.A.P. to evaluate a postfix expression using a stack

(c) W.A.P. to implement queue as a circular array

(d) W.A.P. to add a note at the end of a linked list

(e) W.A.P. to remove the first note of a linked list

(f) W.A.P. to generate a binary search tree and then search for a specific valued node

(g) W.A.P. for binary search

(h) W.A.P. for bubble sort

(i) W.A.P. insertion sort

(j) W.A.P. selection sort

———

SH-III/Com. Sc.-303C -7/(PR)/19

B.Sc. 3rd Semester (Honours) Practical Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31523 **Course Code : SH-CSC-303/C-7**

Course Title: Computer Network Practical

Time: 2 Hours **Full Marks: 15**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

LNB + VIVA = 05, Practical = 10.

Attempt *any one*: 10×1=10

1. Simulate CRC error detection algorithm for noisy channel.

2. Simulate and implement stop and wait protocol for noisy channel.

3. Simulate and implement go back n sliding window protocol.

4. Simulate and implement distance vector routing algorithm.

5. Simulate and implement Dijkstra Algorithm for shortest path routing.

_____

SH-III/Com. Sc.-301C-5/19

B.Sc. 3rd Semester (Honours) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31511 **Course Code : SH-CSC-301/C-5**

Course Title: Data Structures Theory

Time: 1 Hours 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

The questions are equal value.

1. Answer *any five* questions: 1×5=5

(a) Distinguish between array and matrix.

(b) Cite a real life example on how to negate the stack effect.

(c) When does stack underflow occur?

(d) Draw a simply two-way linked list.

(e) What is priority queue?

(f) What is recursion?

(g) Name one of the inventors of AVL-tree.

(h) Name a searching technique for which sorting is a precondition.

2. Answer *any two* of the following questions: 5×2=10

(a) Represent the infix expression $a + b * c - d$ in postfix form. What is queue? 3+2=5

(b) Write an algorithm to evaluate a postfix expression using a stack. 5

(c) Write a recurrence relation that can generate the Fibonacci series. 5

(d) Write an algorithm for queue operations.
What is the role of return statement? 4+1=5

3. Answer *any one* question: 10×1=10

(a) Write insertion sort algorithm.
Comment in the statement "insertion sort algorithm is an online algorithm".
construct an AVL tree for the elements to be inserted one-by-one as:
March, May, November, August, April, January. 4+2+4=10

(b) Discuss the following attributes of hashing:
Hash table, Hash function, Collision and Overflow, Overflow Handling Techniques. 2+2+3+3=10

———