Enrollment No……

Bachelor of Computer Application
Fourth Semester Main Examination, June-2021
Coordinate Geometry of Three Dimension [BCA401]

Time: 3:00 Hrs **Max Marks 40**

Note : Attempt any Five questions. All questions carry equal mark

Q.1 Show that the equations of lines given by

$$\frac{x-1}{2} = \frac{y-2}{3} = \frac{z-4}{4} \text{ And } \frac{x-3}{3} = \frac{y-3}{4} = \frac{z-4}{5} \text{ are Coplanar}$$

Q.2 Prove that the lines

$$\frac{x-4}{1} = \frac{y+3}{-4} = \frac{z+1}{7} \text{ And } \frac{x-1}{2} = \frac{y+1}{-3} = \frac{z+10}{8}$$

Intersect and find the coordinate of the point of intersection.

Q.3 Prove that the angle between two diagonals of a cube is $\cos^{-1}\left(\frac{1}{3}\right)$

Q.4 If the sphere $x^2+y^2+z^2+3x-3y+6= 0$and $x^2+y^2+z^2-6y+6z+6=0$ are member of coaxial system of sphere Find the limiting points of the system.

Q.5 Find the coordinates of the center (if any) of the quadratic surface.

$$z^2 – yz + zx + xy – 2y + 2z + 2 = 0$$

Q.6 Find the equation of diametricral plane of the conicoid, corresponding to the system of chord parallel to the straight line

$$\frac{x-1}{4} = \frac{y+2}{3} = \frac{z}{-2}$$

Q.7 Find the equation of polar of the point (-1,2,3) with respect to the conicoid: $3x^2+4y^2-z^2-yz+2zx+3xy-4x+5y+7z-10 = 0$

Enrollment No……

Bachelor of Computer Application
Fourth Semester Examination, June-2021
Database Management System [BCA402T]

Time: 3:00 Hrs **Max Marks 50**

Note: Attempt all questions. All questions carry equal marks.

Q.1 Explain the Significance of DBMS for curry commercial Organization?

Q.2 ER-modeling plays vital role in the design of Database?

Q.3 Differentiable between strong entity & weak entity with example for each types of entity?

Q.4 Explain the relational approach of DBMS?

Q.5 What are different integrity contains? Explain with suitable example

Q.6 What is normalization? Write the steps to normalize a relation

Q.7 Define functional dependences. How are primary keys related to FD's?

Enrollment No……

Bachelor of Computer Application
Fourth Semester Examination, June-2021
Data & Network Communication [BCA403T]

Time: 3:00 Hrs **Max Marks 40**

Note : Attempt all questions. All questions carry equal marks.

Q.1 Explain Data communication system

Q.2 Discuss SNA Operating system

Q.3 Discuss limits of communication

Q.4 Explain sampling theorem & quantization.

Q.5 What do you understand by Character oriented protocol.

Q.6 Define
(i) Ethanol (ii) Token ring

Q.7 Define Data Topology.

Enrollment No……

Bachelor of Computer Application
Fourth Semester Main Examination, June-2021
Digital Computer Organization [BCA404T]

Time: 3:00 Hrs **Max Marks 50**

Note : Attempt all questions. All questions carry equal mark

Q.1 (a) Explain Microprocessor.
(b) Explain hardware and software with suitable example.

OR

(a) Write a short note on user interface.
(b) Explain any one user interface.
(c) Draw a labeled block diagram of computer. Explain each part of computer.

Q.2 (a) Define following -
(i) LCD screen (ii) LED screen (iii) CRT
(b) Write a short note on printer define its type

OR

(a) Explain scanner and plotters
(b) Define following -
(i) Floppy disk (ii) Hard Disk (iii) Pen Drive

Q.3 (a) Write a short note on following -
(i) Cash memory (ii)Magnetictap drive
(b) What do you mean computer memory? How many types of computer memory? Explain.

OR

(a) Explain RAM and ROM explain different types of ROM.
(b) Define following -
(i) Memory Controller (ii) Optical Disk

Q.4 (a) Explain distributed processing or multiprocessing.
(b) Define following -
(i) LAN (ii) WAN (iii) MAN

OR

(a) Write a short note on dumb and smart terminals computer network.
(b) Explain multiprogramming and multiuser system.

Q.5 (a) Write a short note on I/O processor and interrupt controllers.
(b) Define I/O architecture.

OR

(a) Write a short note on DMA transfer and DMA controller.
(b) Define hardware and software interrupts.

Enrollment No……

Bachelor of Computer Application
Fourth Semester Examination, June-2021
Unix Operating System [BCA405T]

Time: 3:00 Hrs **Max Marks 50**

Note: Attempt all questions. All questions carry equal marks.

Q.1 Give significance of pipe and tees features of Unix.

Q.2 Explain the layered system structure of operating system.

Q.3 Write the algorithm to solve the sleeping fathered problem

Q.4 Explain various dead lock recovery methods.

Q.5 Discuss various features of Unix operating system.

Q.6 Write a note on I/O device drivers?

Q.7 Give the purpose and syntax of the following commands
(a) Spell (b) CMP (c) Date (d) Diff

Enrollment No……

Bachelor of Computer Application
Fourth Semester Examination, June-2021
Environmental Awareness [BCA406T]

Time: 3:00 Hrs **Max Marks 20**

Note: Attempt all questions. All questions carry equal marks.

Q.1 Define environmental resources.

Q.2 Writ an essay on Urbanization ?

Q.3 What is carbon footprint? Discuss its contribution .

Q.4 What does green networking mean.

Q.5 Write short notes on data duplication?

Q.6 Discuss about seven incredible green computer concepts.

Q.7 What is disaster? Explain the types of disaster

Enrollment No……

Master of Technology
Third Semester Examination, June-2021
Advance Foundation Engineering [MTSE301(2)]

Time: 3:00 Hrs **Max Marks 70**

Note: Attempt any five questions. All questions carry equal marks.

Q.1 What Are The Different Types Of Penetration Tests? Under What Circumstances Would You Recommend Them?

Q.2 Discuss The Factors Which Are Relevant To The Planning Of A Well Balanced Exploration Program?

Q.3 Discuss The Various Stages Of Sample Disturbance.

Q.4 Describe In Details The Different Types Of Settlements Which Are To Be Considered In The Design Of A Shallow Foundation?

Q.5 Explain The Method Of Conducting A Field Bearing Test. Discuss The Validity Of The Test Results In The Design Of Foundations.

Q.6 List The Circumstances Under Which A Pile Foundation Become Necessary.

Q.7 What Are The Factors To Be Considered In The Selection Of Pile Hammer?

Q.8 In A Two Layered Cohesive Soil, Bored Piles Of400 Mm Are Installed. The Top Layer Has A Thickness Of 5m And The Bottom One Is Of Considerable Depth. The Shear Strength Of The Top Clay Layer Is 45 Kn/M^2 And That Of The Bottom Is 100 Kn/M^2. Determine The Length Of The Bored Pile Required To Carry- A Safe Load Of 380 Kn, Allowing A Factor Of Safety Of 2.0.