REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

Class: FYBSC-IT

SEMESTER: II

SUBJECT: Web Programming — **MARKS: 20**

DATE: 11/04/2022 — **TIME: 40 MINS**

Q1 Attempt any **four** questions.

1) What is search engine? Explain its working.

2) Explain HTML Tags with example.

3) Explain different approaches of style sheets with example.

4) Explain text-based navigation with example.

5) Explain image and image mapping tags with example.

6) Write HTML code for embedding an audio and video in a web page.

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

CLASS: FYBSC-IT

SEMESTER: II

SUBJECT: OOPS MARKS: 20

DATE: 11/04/2022 TIME: 40 MINS

Q1 Attempt any **four** questions.

1) Explain the syntax of the if-else statement with example.
2) Write a short note on arrays.
3) Write a program to display the word "Computer" 10 times using for loop.
4) Explain internally defined function with program example.
5) What is constructor? Explain the any one types of constructors.
6) Explain friends function class with example.

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

CLASS: FYBSC-IT

SEMESTER: II

SUBJECT: Green Computing MARKS: 20M

DATE: 12/04/2022 TIME: 40 MINS

Q1 Attempt any **four** questions.

1) What is e-waste? Explain various toxins generated from e-waste.
2) Explain the need of virtualization and storage in reducing power usage.
3) What are the steps taken to reduce energy consumption?
4) How can an organization reengineer its process to be more environmental friendly?
5) What are the ways to cool down devices that generate heat?
6) What are the benefits of recycling electronic components?

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

CLASS: FYBSC-IT

SEMESTER: II

SUBJECT: Microprocessor Architecture **MARKS: 20M**

DATE: 12/04/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

1) Explain the Data transfer instruction and Logical Instructions.
2) What is stack? What are the two operations on the stack? Explain with example
3) Explain the concept of data bus for a memory?
4) Explain the PPI (Programmable peripheral Interface) and its features of 8155?
5) Explain the interrupt control and serial control block of 8085.
6) List and explain the various data transfer instruction.

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

CLASS: FYBSC-IT

SEMESTER: II

SUBJECT: Numerical and Statistical Maths **MARKS: 20**

DATE: 13/04/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

1. Explain the terms: i) Significant figures ii) Accuracy iii) Precision iv) Truncation error v) Round-off error.
2. Find truncation error in the exponential series

$$e^x = 1 + x + x^2/2! + x^3/3! + \ldots + x^n/n!$$

for computation of first six terms in expansion at x=2.5.

3. Find the roots of the equation $x^3 - x - 4 = 0$ using bisection method perform 3 iterations.
4. Find 4^{th} roots of 20 using Newton Raphson method take initial value as 2 correct up to 3 decimal places.
5. Use Lagrange's Interpolation formula to estimate the polynomial passing through the points (0,3),(1,2),(4,11).
6. Given:

X:	1	2	3	4	5	6	7	8
f(x)	0.01	0.004	0.02	0.12	0.15	0.257	0.325	0.231

Find f(7.5)using appropriate interpolation formula

FYBSC (IT) / SEM – II / Regular & ATKT / Green Computing

SET – B

Time: 2:30 Hours **Marks : 75**

Date : 11/05/2022

Note : 1) All questions are compulsory

2) Figures to the right indicates full marks

Q. 1. Multiple choice questions: (Any 20) **(40 Marks)**

1. A server chassis housing multiple thin , modular electronic circuit board that are dedicate to a single application

a) Storage Servers

b) Cloud servers

c) Application Servers

d) Blade Servers

2. The panels that absorb solar radiation made of silicon an coated with tampered glass and mounted on the roof of a free standing pole shows

a) Low power computer

b) Net metering

c) Sell back panels

d) Inverter

3. What is the hazardous pollutant released from circuit boards?

a) Barium

b) Arsenic

c) Copper

d) Lead

4. The most valuable part of a PC or TV is the

a) copper in the cathode yoke

b) circuit boards that contain silver and gold

c) lead in the CRT

d) lead in the cathode yoke

5. Which materials can be extracted from alkaline batteries and used in the creation of new ones?

a) Steel and cadmium

b) Steel and zinc

c) Lead and lye

d) Lithium and carbon

6. Installing software on a centralized server and sending it to users as needed is called

a) Application migration

b) Application streaming

c) Application sending

d) Application swapping

7. MAID stands for

a) Mass Array of Idle Disks

b) Massive Array of Idle Disks

c) Massive Active Indian Disks

d) Massive Action Idle Disks

8. What is the hazardous pollutant released from calculators?

a) Copper

b) Lithium

c) Mercury

d) Lead

9. StEP stand for

a) Solving the E-Waste Problem

b) Solving the Electronic Problem

c) Send time E-Waste Planning

d) Standard time Environment Planning

10. Which of the following element make e-waste hazardous in nature?

a) Iron

b) Glass

c) Plastic

d) lead

12. In an organization where the media is played from a CD,DV or hard drive ,the application buffers are set large enough to store as much of the media in memory as possible.

a) Doing this crashes the computers

b) Doing this reduces power

c) Doing this increases power

d) Doing this crashes the server

13. Which is not a benefit of virtualization?

a) Flexible and efficient allocation of resources

b) Lowers the cost of IT infrastructure

c) Run on single operating system

d) Remote access and rapid scalability

14. Which of the hazardous pollutant occurs in plastic?

a) Lithium

b) Lead

c) PCBs

d) Copper

15. What is the iron and steel constitute of e-waste?

a) 20

b) 30

c) 40

d) 50

16. EPEAT does not address which criteria?

a) Packaging attributes

b) Manufacturing

c) Corporate performance

d) Management of enf of life products

17. What is the hazardous pollutant released from telephones?

a) Lithium

b) Lead

c) PCBs

d) Copper

18. How many types of economizers are there

a) 2

b) 1

c) 3

d) 4

19. StEP Task Forces does not include

a) ReDesign

b) Policy Legislation

c) ReCycle

d) ReSearch

20. Allows exchange of business documents in a standardize electronic format between business partners.

a) Electronic Data Interchange (EDI)

b) Google

c) WhatsApp

d) Internet Explorer

21. The sale of electronics containing which material is NOT prohibited by the RoHS directive?

a) Tungsten

b) Mercury

c) Hexavalent chromium

d) Lead

22. It helps a user to have remote access to an application from a server.

a) Desktop virtualization

b) Network virtualization

c) Application virtualization

d) Storage virtualization

23. Sun Microsystem operates its own telecommuting program called.

a) iWork

b) Internet

c) Infosys

d) windows

24. Steps to measure carbon foot printing does not include

a) Do not Report the result to stakeholders

b) Baseline should be set

c) Define what all things contribute to carbon footprint

d) Track and analyze carbon footprint of organization

25. The EPA's product rating system that assesses the environmental impact of consumer and commercial products is called.

a) Energy Star

b) Energy Check

c) Energy Point

d) Energy Score

Q2. Attempt (Any One) questions: **(7 Marks)**

1. What are the carbon footprint? Briefly explain how to compute company's carbon footprint.
2. Discuss about cost saving in power consumption by desktops and data centers.
3. List and explain the various toxins present in computer system.

Q3. Attempt (Any One) questions: **(7 Marks)**

1. How can you minimize excessive power output from wireless devices?
2. How to calculate cooling requirement of a system? Explain using suitable example.
3. Explain the ways of reducing power consumption in storage.

Q4. Attempt (Any One) questions: **(7 Marks)**

1. Briefly explain steps in setting up a telecommuting program?
2. Explain any two best practices that can help optimize the airflow around servers and other networking equipment.
3. Write a short notes on customer relationship management. Explain its technology component.

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Q5. Attempt (Any One) questions: **(7 Marks)**

1. What is Basel action network? Write down the different functions of it.
2. What is EDI? Write down advantage and problems of EDI.
3. Explain commercial and non-commercial refurbishing.

Q6. Attempt (Any One) questions: **(7 Marks)**

1. Write short note on SMART goals and Quantitative.
2. What is certification program? List the different certification programs.
3. What is intranet? What are the different components that are required for building intranet?

FYBSC (IT) / SEM – II / Regular & ATKT / Microprocessor Architecture

SET – B

Time: 2:30 Hours **Marks : 75**

Date : 07/05/2022

Note : 1) All questions are compulsory

2) Figures to the right indicates full marks

Q. 1. Multiple choice questions: (Any 20) **(40 Marks)**

1. Which of the following addressing method does the instruction, MOV AX,[BX] represent?
a) register indirect addressing mode
b) direct addressing mode
c) register addressing mode
d) register relative addressing mode

2. What is the word length of an 8-bit microprocessor?
a) 8-bits – 64 bits
b) 4-bits – 32 bits
c) 8-bits – 16 bits
d) 8-bits – 32 bits

3. In 8-bit microprocessor, how many opcodes are present?
a) 246
b) 278
c) 250
d) 256

4. Which of the following is not true about the address bus?
a) It consists of control PIN 21 to 28
b) It is a bidirectional bus
c) It is 16 bits in length
d) Lower address bus lines ($AD_0 - AD_7$) are called "Line number"

5. Which of the following is true about microprocessors?
a) It has an internal memory
b) It has interfacing circuits
c) It contains ALU, CU, and registers
d) It uses Harvard architecture

6. Which of the following is the correct sequence of operations in a microprocessor?
a) Opcode fetch, memory read, memory write, I/O read, I/O write
b) Opcode fetch, memory write, memory read, I/O read, I/O write
c) I/O read, opcode fetch, memory read, memory write, I/O write
d) I/O read, opcode fetch, memory write, memory read, I/O write

7. Which of the following is not a microprocessor?
a) Z8000
b) Motorola 6809
c) Zilog Z8
d) PIC1x

8. Which of the following is not a property of TRAP interrupt in microprocessor?
a) It is a non-maskable interrupt
b) It is of highest priority
c) It uses edge-triggered signal
d) It is a vectored interrupt

9. Which of the following is a property of RST 7.5 interrupt?
a) It is a non-maskable interrupt
b) It has 3rd highest priority
c) It uses level-triggered signal
d) Its vectored address is 0034H

10. Which of the following flag is used to mask INTR interrupt?
a) zero flag
b) auxiliary carry flag flag
c) interrupt flag
d) sign flag

11. Which of the following circuit is used as a special signal to demultiplex the address bus and data bus?
a) Priority Encoder
b) Decoder
c) Address Latch Enable
d) Demultiplexer

12. How many flip-flops are there in a flag register of 8085 microprocessor?
a) 4
b) 5
c) 7
d) 10

13. Which of the following flag condition is used for BCD arithmetic operations in microprocessor?
a) Sign flag
b) Auxiliary carry flag
c) Parity flag
d) Zero flag

14. Whenever a non-maskable interrupt occurs in 8085 microprocessor, which of the following data line contains the data?

a) 2C H
b) 3C H
c) 36 H
d) 24 H

15. What does a microprocessor understand after decoding opcode?
a) Perform ALU operation
b) Go to memory
c) Length of the instruction and number of operations
d) Go to the output device

16. How many address lines are present in 8086 microprocessor?
a) 16
b) 20
c) 32
d) 40

17. Which of the following is not a status flag in microprocessor?
a) Overflow flag
b) Direction flag
c) Interrupt flag
d) Index flag

18. A memory connected to a microprocessor has 20 address lines and 16 data lines. What will be the memory capacity?
a) 8 KB
b) 2 MB
c) 16 MB
d) 64 KB

19. What is the word length of the Pentium-II microprocessor?
a) 8-bit
b) 32-bit
c) 64-bit
d) 16-bit

20. How many pins of 8085 microprocessor includes?

a) 40

b) 35

c) 28

d) 64

21. Handshaking mode of data transfer is ?

a) Synchronous data transfer

b) asynchronous data transfer

c) interrupt driven data transfer

d) level mode of DMA data transfer

22. In Microprocessor the address of the new next instruction to be executed is stored in.

a) Stack pointer

b) address latch

c) program counter

d) General purpose register

23. XCHG instruction of 8085 exchange the content of ?

a) top to stack with contents of register pair

b) BC and DE register pair

c) HL and DE register pair

d) BC and HL register pair

24. For 8085 microprocessor the instruction RST 6 restarts subroutine at address

a) 00H

b) 03H

c) 30 H

d) 33 H

25. The address bus of intel 8085 is 16 bit wide and hence the memory which can be accessed by this address bus is.

a) 2k bytes

b) 4k bytes

c)16k bytes

d) 64k bytes

Q2. Attempt (Any One) questions: **(7 Marks)**

1. Draw a neat labelled diagram of the 8085 bus structure and hence explain address bus, data bus and control bus?
2. Explain pins of 8085: ALE , INTR, AD7-AD0, RST 7.5, HLDA
3. Explain the process of translation of High language program into machine code?

Q3. Attempt (Any One) questions: **(7 Marks)**

1. Explain the following instruction
   a. ADI
   b. JC
   c. XRA
   d. ORI
   e. JNZ
2. What is instruction, instruction word size? Write types of instruction based on size?
3. Write an assembly language program to add two 8 bit numbers stored at memory locations D200H and D300H. Store the answer at memory locations D400H.

Q4. Attempt (Any One) questions: **(7 Marks)**

1. Explain the following logic operations with example RLC , RAR.
2. Define Stack, Stack Pointer register and describe their uses.
3. Explain the effect of the POP and PUSH instruction on the stack Pointer.

Q5. Attempt (Any One) questions: **(7 Marks)**

1. What do you mean by vectored interrupts? Discuss each of 8085 vectored interrupt in brief?
2. Explain the following instruction:
   a. LHLD and SHLD
   b. XCHG and XTHL
   c. SBB
3. What are the advantages of an assembler?

Q6. Attempt (Any One) questions: **(7 Marks)**

1. What are the different types of special Pentium registers? Describe them in brief?
2. Discuss the features of SPARC microprocessor?
3. Compare i3, i5, i7 processors?

Time: 2.5 Hours **Marks : 75**

Date: 10/05/2022

Note: 1) All questions are compulsory

2) Figures to the right indicate full marks.

Q1. Multiple Choice Questions(Any 20): **(Marks 40)**

1. The number of significant digits in the number 204.020050 is ..... (5,6,8,9)
2. Truncation error is the difference between _____(the exact solution of the partial differential equation and the discretized equations, the exact partial differential equation and the discretized equations, the exact solution and the numerical solution of the partial differential equations, the exact partial differential equation and its solution)
3. _____ become significant after a repeated number of calculations (Truncation errors, Discretization errors, Absolute errors, Modelling errors)
4. To solve engineering problem, we have to formulate the pattern as math expression in term of variables, functions and equations such expression is called ..... (functional model, math model, variable model, math equation)
5. A civil engineer has measured the height of 20 storied building as 2950 cm and the working height of each beam as 35 cm while the true values are 2945 cm and 30 cm respectively. Compute the absolute error (6, 7, 8, 5)
6. The Iterative formula for Newton Raphson method is given by ____ (x1 = x0-f(x0)/f'(x0), x0 = x1-f(x0)/f'(x0), x0 = x1+f(x0)/f'(x0), x1 = x0+f(x0)/f'(x0))
7. We wish to solve x2 - 2 = 0 by Newton Raphson technique. If initial guess is $x_0 = 1.0$, subsequent estimate of x (i.e. x_1) will be (1.414, 1.5, 2.0, 2.8)
8. Find x if x0 = 0.6, n = 2.6 and h = 0.2. (12, 1.2, 1.12, 1.22)
9. The value of y'/x' in terms of the angle 0 is given by _____ (tan θ, Sec θ, Cot θ, cosec θ)
10. The process of constructing a sequence of vectors and obtaining the solution of a system using specified accuracy is called _____(Elimination, Reduction, Iteration, Raphson Method)
11. The Gauss-Seidel method is applicable to strictly diagonally dominant or symmetric_____ definite matrices.(positive, negative, Zero, Equal)
12. Numerical techniques more commonly involve_____(iterative method, Direct method, Elimination, Reduction method)
13. Solve the equations using Gauss Jordan method. x + 2y + 6z = 22, 3x + 4y + z = 26, 6x-y-z=19 (x = 4, y = 3, z = 2, x = 4, y = 3, z = 1, x = 3, y = 2, z = 1, x = 4, y = 4, z = 3)
14. In Gauss Jordan method which of the following transformations are allowed? (Diagonal transformation, Column transformation, Row transformation, Square transformation)
15. The problems which deal with the analysis of electronic circuits consisting of invariant elements depend on _____(The solution of simultaneous algebraic equations, Solution of transcendental equations, Interpolation problems, Finite difference method)
16. Which of the following can the Simpson's rule possess? (Negatives, Accuracy, Positives, Zero error.)
17. The region of feasible solution in LPP graphical method is called ..... (Infeasible region, unbounded region, infinite region, feasible region)

18. When it is not possible to find solution in LPP, it is called as case of ..... (unknown solution, unbounded solution, infeasible solution, improper solution)
19. When the feasible region is such that the value of objective function can extend to infinity, it is called a case of .....(unique solution, unbounded solution, infeasible solution, alternate solution)
20. When the constraints are a mix of 'less than' or 'greater than' it is a problem having .....(multiple constraints, infinite constraints, infeasible constraints, mixed constraints)
21. In linear programming, unbounded solution means ..... (infeasible solution, degenerate solution, infinite solutions, unique solution)
22. The ____ refers to number of items to be produced, sold, purchased etc. that are competing with one another for sharing given limited resources. (objective function, decision variables, constraints, alternative sources of action)
23. Which of the following is assumption of an LP model (divisibility, proportionality, addictivity, multiplicability)
24. If E denotes the expectation the variance of a random variable X is denoted as? (a) (E(X))^2, E(X^2)-(E(X))^2, E(X^2), 2 E(X))
25. In a Binomial Distribution, if p, q and n are probability of success, failure and number of trials respectively then variance is given by _____ (np, npq, np^2q, np(1-p))

Q2. Attempt any one of the following: (7 marks) **(Marks 7)**

1. Explain Mathematical Model in detail?
2. Find the absolute and relative error and also determine the number of significant digits in the approximations. True value of x= 2.71828182, Approximate value of x= 2.7182.
3. A civil engineer has measured the height of 20 storied buildings as 2950cm and working height of each beam as 35cm while the true values are 2945cm and 30cm resp. Compare absolute and relative error.

Q3. Attempt any one of the following: (7 marks) **(Marks 7)**

1. Use bisection method to find the root of the equation $f(x) = \cos x - x e^x = 0$. Assume initial guess to be 0 and 1. Calculate answer by doing 5 iterations.
2. From the following table of yearly premium policies maturing at quinquennial ages estimate the premium for policies maturing at the age of 46 years.

Age	45	50	55	60	65
Premium	29	24	21	19	17

3. Use Lagrange's Interpolation formula to estimate the polynomial passing through (0,3), (1,2) and (4,11).

Q4. Attempt any one of the following: (7 marks) **(Marks 7)**

1. Solve the following simultaneous equations by Gauss- Jordan method: $2x + 6y - z = -14$, $5x - y + 2z = 29$, $z - 3x - 4y = 4$.
2. Use Eulers method to estimate y(0.5) of the following equations with h=0.25. $dy/dx = x + y + xy$, $y(0) = 1$.
3. Evaluate $\int_0^{\pi} 4 + 2Sin\, x\, dx$ using trapezoidal rule, Simpson's 1/3rd rule, Simpson's 3/8th rule having n = 6.

Q5. Attempt any one of the following: (7 marks) **(Marks 7)**

1. Obtain the equations of two lines of regression for the following data: Also estimate of X when Y = 70

X	65	66	67	67	68	69	70	72
Y	67	68	65	68	72	72	69	71

2. Solve the following LP problem using graphical method.

   Minimize $z = 10x + 15y$

   Subject to $2x + y <= 26$

   $2x + 4y <= 5$

   $y - x <= 5$

   $x >= 0, y >= 0$

3. Solve the following LP problem using graphical method.

   Maximize $z = 3x + 5y$

   Subject to $x + 2y <= 5$

   $2x + y <= 7$

   $x + y <= 9$

   $x >= 0, y >= 0$

Q6. Attempt any one of the following: (7 marks) **(Marks 7)**

1. A bag contains 5 red and 6 green balls. A person draws 2 balls at random and he gets Rs.10 for each red ball and Rs. 7 for each green ball. If X is the amount that person gets then find probability distribution of random variable X.
2. It is observed that 30% of the students appearing for a certain entrance test are science graduates. If 5 students are randomly selected from this group what is probability that among them (i) Two are science graduates (ii) No one is science graduates (iii) atleast two are science graduates.
3. Suppose fair coin is marked 1 and 2 dice numbered 1,2,3,4,5,6 are thrown simultaneously then probability mass function of random variable X which is sum of numbers on coin and dice is obtained as under.

Time:2.30 hours **Marks:75**
Date:06/05/22

Note:1) All question are compulsory.
2) Figures to the right indicate full marks.

Q.1 Multiple choice question's (Any 20) (40 marks).

1) Which of the following is not type of class? (Abstract Class, Final Class, Start Class, String Class)
2) What is default access specifier for data members or member functions declared within a class without any specifier, in C++? (Private, Protected, Public, Depends on compiler)
3) Which of the following pairs are similar? (Class and object, Class and structure, Structure and object, Structure and functions)
4) The object can't be _____ (Passed by reference, passed by value, passed by copy, Passed as function)
5) Class is pass by _____ (Value, Reference, Value or Reference, depending on program Copy)
6) Size of a class is _____ (Sum of the size of all the variables declared inside the class, Sum of the size of all the variables along with inherited variables in the class, Size of the largest size of variable, Classes doesn't have any size)
7) Which constructor is called while assigning some object with another? (Default, Parameterized, Copy, Direct assignment is used)
8) Which type of function among the following shows polymorphism? (Inline function, Virtual function, Undefined functions, Class member functions)
9) Virtual functions are mainly used to achieve _____ (Compile time polymorphism, Interpreter polymorphism, Runtime polymorphism, Functions code polymorphism)
10) Virtual functions can never be made _____ (Static function, Parameterized function, Default argument function, Zero parameter function)
11) The static member functions _____(Can be called using class name, Can be called using program name, Can be called directly, Can't be called outside the function)
12) Which keyword should be used to declare the static member functions? (static, stat, const, common)
13) Which access type data gets derived as private member in derived class? (Private, Public, Protected, Protected and Private)
14) Members which are not intended to be inherited are declared as _____(Public members, Protected members, Private members, Private or Protected members)
15) Which among the following best defines multilevel inheritance? (A class derived from another derived class, Classes being derived from other derived classes, continuing single level inheritance, Class which have more than one parent)
16) What is the minimum number of levels for a implementing multilevel inheritance? (1, 2,3,4)
17) In multilevel inheritance one class inherits _____(Only one class, More than one class, At least one class, As many classes as required)
18) How many classes must be there to implement hierarchical inheritance? (Exactly 3, At least 3, At most 3, At least 1)
19) How many types of inheritance should be used for hybrid? (Only 1, At least 2, At most two, Always more than 2)

20) What are the two specializations of I/O template classes in C++? (16-bit character and wide characters, 8-bit character and wide characters, 32-bit character and locale characters, 64-bit characters and locale characters)
21) _____removes the named file, so that a subsequent attempt to open it will fail. (remove (const *filename), remove(filename), remove (), fclose(filename))
22) Which among following is used to open a file in binary mode? (ios:app, ios::out, ios::in, ios::binary)
23) If template class is defined, is it necessary to use different types of data for each call? (No not necessary, No but at least two types must be there, Yes to make proper use of template, Yes for code efficiency)
24) Where the virtual function should be defined? (Twice in base class, Derived class, Base class and derived class, Base class)
25) Which definition best describes an object?(Instance of a class, Instance of itself, Child of a class, Overview of a class)

Q.2 Answer any one of the following. (07 marks)

a) Explain the principal of OOP.
b) Explain the syntax and operation of the for statement with example.
c) Explain the syntax of declaring a structure and its variable using example.

Q.3 Answer any one of the following. (07 marks)

a) What is a constructors? Explain default constructor with program example.
b) Explain internally defined member function with program example.
c) Explain inline member function with program example.

Q.4 Answer any one of the following. (07 marks)

a) Explain function overriding with example.
b) Explain this pointer with program example.
c) Explain the virtual destructor. Give suitable example.

Q.5 Answer any one of the following. (07 marks)

a) What is single inheritance? Explain with a program example.
b) Explain the exception handling in C++.
c) Write a C++ program to implement a class for multiple inheritance.

Q.6 Answer any one of the following. (07 marks)

a) Explain overloading a template function using a non-template function with a program example.
b) How to access a file in C++? List the different function in C++ to perform various file operations.
c) What is a template? Explain creating function template with syntax and a program example.

FYBSC-IT/SEM-II/REGULAR & ATKT/WEB PROGRAMMING

[SET – A]

Time: 2.5 Hours Marks: 75

Date: 09/05/2022

Note: 1) All questions are compulsory.

2) Figures to the right indicates full marks.

Q1) Multiple choice question **(attempt any 20)** (40 marks)

1. What is the preferred way for adding a background color in HTML? (<body background="yellow">, <background>yellow</background>, < body style="background-color:yellow">,<background color="yellow">text<background>)
2. Which of the following can read and render HTML web pages?
   (Server, Head Tak, web browser, empty)
3. Why were cookies designed?
   (for server-side programming, For client-side programming, both a and b, None)
4. HTML stands for _____
   (HyperText Markup Language, HyperText Machine Language, HyperText Marking Language, HighText Marking Language)
5. Which of the following tag is used for inserting the largest heading in HTML?
   (head, <h1>, <h6>, heading)
6. In which part of the HTML metadata is contained?
   (head tag, title tag, html tag, body tag)
7. Which element is used to get highlighted text in HTML5?
   (<u>, <mark>, <highlight>, <b>)
8. Which of the following is not a HTML5 tag?
   (<track>, <video>, <slider>, <source>)
9. How do we write comments in HTML?
   (</.....>, <!.....>, </...../>, <.....!>)
10. Which of the following is not the element associated with the HTML table layout?
    (alignment, color, size, spanning)
11. Which element is used for or styling HTML5 layout?
    (CSS, jQuery, JavaScript, PHP)

12. Which character is used to represent when a tag is closed in HTML?
    (#, !, /,\)
13. Which of the following HTML tag is used to create an unordered list?
    (<ol>, <ul>, <li>, <ll>)
14. How can we change the background color of an element?
    (background-color, color, Both A and B, None of the above)
15. How can we change the text color of an element?
    (background-color, color, Both A and B, None of the above)
16. In how many ways can CSS be written in?
    (1,2,3,4)
17. Which of the following has introduced text, list, box, margin, border, color, and background properties?
    (HTML, PHP, CSS, Ajax)
18. Which of the following CSS selector is used to specify a rule to bind a particular unique element?
    (tag, id, class, both class and tag)
19. Which of the following type of HTML tag is used to define an internal style sheet?
    (<script>, <link>, <class>, <style>)
20. Which of the following CSS property is used to make the text bold?
    (text-decoration: bold, font-weight: bold, font-style: bold, text-align: bold)
21. Which of the following CSS style property is used to specify an italic text?
    (style, font, font-style, @font-face)
22. What does PHP stand for?
    (Preprocessor Home Page, Pretext Hypertext Processor, Hypertext Preprocessor Personal Hyper Processor)
23. Which of the following is the correct syntax to write a PHP code?
    (<?php ?>, < php >, < ? php ?>, <? ?>)
24. Which of the following is the default file extension of PHP files?
    (.php, .ph, .xml, .html)
25. How to define a function in PHP?
    (functionName(parameters) {function body}, function {function body}
    function functionName(parameters) {function body},
    data type functionName(parameters) {function body})

Q2) Answer **any one** of the following (7 Marks)

1. List and explain important application of internet in brief. Explain working of search engine.
2. Explain different approaches of style sheet with example.
3. What are links? Explain with example. Explain any 5 attributes of HTML Elements. Give example of any 2.

Q3) Answer **any one** of the following (7 Marks)

1. What is image map? Write difference between client-side and server-side image mapping. Explain with example.
2. Explain semantic tags of HTML5 with example.
3. Explain text-based navigation bar with suitable example.

Q4) Answer **any one** of the following (7 Marks)

1. Differentiate between client side and server-side JavaScript.
2. List and explain the methods of string object of JavaScript.
3. Explain DOM. List and explain its various methods and properties.

Q5) Answer **any one** of the following (7 Marks)

1. Explain error handling in PHP with example.
2. Explain different types of arrays in PHP with example.
3. Explain conditional statement in PHP with example,

Q6) Write Short note on **(Any 2)** (7 Marks)

1. Web server
2. PHP data types
3. Use of Multimedia in webpages
4. HTML tables

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: IV

SUBJECT: Computer Graphics **MARKS: 20**

DATE: 11/03/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

1. What is computer graphics? Explain different application of it .
2. Explain DDA line drawing algorithm.
3. Explain the method circle drawing using mid point circle algorithm.
4. Explain different types of video format.
5. Explain in brief 2D transformation technique.
6. Explain text input device in details.

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: IV

SUBJECT: Core Java **MARKS: 20**

DATE: 10/03/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

1. Explain features of Java.
2. Explain Java Primitive data types with example.
3. Explain any three types of Operators in Java with example.
4. Explain working of "IF statement" and its different combinations to apply with example.
5. Explain constructors and its types with example.
6. Depict the Output of the following Code

a)
```
public class SwitchExample {
public static void main(String[] args) {
   int number=20;
  switch(number){
   case 10: System.out.println("10");break;
   case 20: System.out.println("20");break;
   case 30: System.out.println("30");break;
   default:System.out.println("Not in 10, 20 or 30");
   }
} }
```

b)

```
public class Main {
 public static void main(String[] args) {
  int time = 22;
  if (time < 10) {
   System.out.println("Good morning.");
  } else if (time < 20) {
   System.out.println("Good day.");
  } else {
   System.out.println("Good evening.");
  } }}
```

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16 - 34

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SYBSC.IT

Core Jam

10/3/2022

Paper 1

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: IV

SUBJECT: Embedded system **MARKS: 20**

DATE: 11/03/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

1. Explain difference between general purpose system and embedded system.
2. Discuss the characteristic of embedded system.
3. List three application of embedded system in brief.
4. Write a note on watchdog timer.
5. Explain the function of control and status register. Give example.
6. Explain difference between microcontrollers and microprocessors.

SUBJECT

11/3

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Extra paper

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: IV

SUBJECT: Software Engineering **MARKS: 20M**

DATE: 10/03/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

a) Explain the prototype model with suitable example.
b) Explain the essential characteristics of socio technical systems.
c) Difference between functional and non-functional requirements in software requirement.
d) What is Feasibility study? Give the suitable example.
e) Explain the system model.
f) What are the Component Software Processes?

(11)

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: VI

SUBJECT : Software Quality Assurance **MARKS: 20M**

DATE: 07/03/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

a) Explain how is testing carried out during SDLC?
b) Differentiate between test policy and test strategy.
c) What affects quality assessment of software products?
d) What are the problematic areas of software development?
e) Define Defect, Error and mistake.
f) Explain V- Model and spiral model.

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TYBSC IT

Paper - I

7.45 - 8.25

7/5/22 (Mon)

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: VI

SUBJECT: Business Intelligence **MARKS: 20**

DATE: 7/03/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

1. Explain the Business intelligence architectures.
2. What are the Phases in the development of a business intelligence system?
3. Explain Rationality and Problem Solving.
4. List the types of decisions in DSS.
5. List the types of mathematical models.
6. Explain Data Mining and its architecture

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: VI

SUBJECT: Security In Computing **MARKS: 20**

DATE: 8/03/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

1. Explain the term espionage, packet sniffing and packet replay?
2. Short Note on Computer Viruses?
3. Explain Remote Access Trojans and Email Worms?
4. Explain various types of authentication methods?
5. Explain Man-In-the-Middle Attacks?
6. Explain Lollipop and Onion Model?

REENA METHA COLLEGE OF ARTS, SCIENCE, COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: VI

Subject: Cyber Law **Date: 8/03/2022**

Time: 40 Mins **Marks: 20**

Answer the following (Any 4)

(a) List out the cybercrime. Give the examples of cybercrime.

(b) What is hacker? Explain different types of hackers.

(c) Explain section 80 of IT Act, 2000 related to power of arrest.

(d) Explain the exception of defamation.

(e) Explain criminal justice in India and implication in cybercrime.

(f) Explain Cyber Pornography.

REENA METHA COLLEGE OF COMMERCE & MANAGEMENT STUDIES

INTERNAL EXAMINATION 2021-2022

SEMESTER: VI

SUBJECT: Enterprise Networking **MARKS: 20M**

DATE: 09/03/2022 **TIME: 40 MINS**

Q1 Attempt any **four** questions.

a) Explain network virtualization design considerations.

b) Difference between Application load balancing and Network load balancing.

c) Explain the different options for the access layer architectures.

d) Explain the devices used in LAN design.

e) Short notes on : i) ARP ii) VPN / Remote access

f) Explain network design methodology.