

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Define the term flowchart and draw its symbol? Also define rules for drawing flowchart? (CO-4)

Q.24 Write short note on following: (CO-3)

- a) Debugging                      b) FTP

Q.25 i) Explain the procedure of Disk Defragmentation? (CO-2)

- ii) Step to install a printer?

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180814

## Computer Engg

### Subject : Computer Fundamentals

Time : 3 Hrs.

M.M. : 60

## SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 What does ISP stand for? (CO-3)

- a) Internet Service Provider  
b) Internet Source Product  
c) Internet System Provider  
d) Intranet System Provider

Q.2 Which of the following displays the information about all the received emails? (CO-8)

- a) Compose box                      b) Inbox  
c) C field                              d) Link

Q.3 An \_\_\_\_\_ converts a high level language program into machine language, line by line (CO-4)

- a) Assembler                      b) Compiler  
c) Interpreter                      d) All

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Q.4 To create Web Pages we use a term, called? (CO-7)

- a) TCP/IP                      b) WWW
- c) HTML                        d) FTP

Q.5 The diagrammatic representation that illustrates the steps for the solution of a problem is called.. (CO-4)

- a) Algorithm                    b) Flowchart
- c) I/O Box                      d) None

Q.6 Which output device is used for translating information from a computer into pictorial form on paper. (CO-1)

- a) Mouse                        b) Plotter
- c) Touch Panel                d) None

### SECTION-B

**Note:** Objective type questions. All questions are compulsory. (6x1=6)

Q.7 Machine language is the only language, which a computer understand. (True/ False) (CO-4)

Q.8 \_\_\_\_\_ is an interconnection between two or more computer. (CO-3)

Q.9 \_\_\_\_\_ is the most popular search engine.(CO-3)

Q.10 Name any two types of DOS command (CO-2)

Q.11 RAM stands for \_\_\_\_\_ (CO-1)

Q.12 Define HTML? (CO-7)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 How can we install a software? Explain. (CO-2)

Q.14 Explain the procedure for changing the screen saver on computer screen? (CO-2)

Q.15 What do you understand Internet Security? (CO-3)

Q.16 Draw a flow chart to calculate the sum and product of two numbers? (CO-4)

Q.17 Write a short note on Email? Name any two websites, which provide the E-mail facility? (CO-8)

Q.18 Define the term Algorithm and its advantages? (CO-4)

Q.19 Define roll of modem in accessing the internet? (CO-7)

Q.20 Difference between compiler and interpreter? (CO-4)

Q.21 Explain social networking sites? (CO-8)

Q.22 Explain the term internet and its application? (CO-3)

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**1st Year / Computer Engg**  
**Subject : Fundamentals of Electrical and**  
**Electronics engg.**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 The unit of reluctance. (CO 6)

- a) Ampere Turns /Weber
- b) Weber Turns
- c) Henry
- d) Weber Turns/ Ampere

Q.2 Which of the following is secondary cell? (CO 7)

- a) Dry cell                      b) Leclanche cell
- c) Voltaic cell                d) Lead acid cell

Q.3 The power factor of pure resistance circuit is (CO 9)

- a) Zero                              b) Leading
- c) Lagging                         d) Unity

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Q.4 Form factor = (CO 8)

- a) rms value / average value
- b) average value / rms value
- c) rms value /peak value
- d) peak value /rms value

Q.5 Synchronous speed of a 3 phase, 4 pole, 50 Hz induction motor is (CO 13)

- a) 1500 rpm                      b) 1440 rpm
- c) 3000 rpm                     d) 2880 rpm

Q.6 Base of BJT is (CO 10)

- a) Lightly doped                b) Heavily doped
- c) Moderately doped         d) Not doped

**SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (6x1=6)

Q.7 Define instantaneous and average value. (CO 8)

Q.8 Define admittance. (CO 9)

Q.9 Which type of chemical reactions takes place in the primary cell. (CO 7)

Q.10 Define current amplification factor of CB configuration. (CO 10)

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Q.11 Full form of MOSFET (CO 12)

Q.12 Define power factor. (CO 9)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Give five applications of lead acid battery. (CO 7)

Q.14 Explain the construction of Bipolar transistors. (CO 10)

Q.15 Define m.m.f., flux and reluctance. (CO 6)

Q.16 Define Form Factor and Peak Factor of an A.C circuit (CO 8)

Q.17 Write a short note on A.C motor. (CO 13)

Q.18 What is the need of stabilization of operating point? (CO 11)

Q.19 Explain the construction and operation of FET. (CO 12)

Q.20 State working principle of a transformer. (CO 13)

Q.21 Explain the connection of batteries in parallel with diagram. (CO7)

Q.22 Write the losses in transformer. (CO 13)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain Faraday's law of Electromagnetic Induction in detail. (CO 6)

Q.24 Explain the input and output characteristics of CE configuration. Derive the relation between  $a$  and  $b$ . (CO 10)

Q.25 Explain in detail series RLC ckt in detail. (CO 9)



- Q.5 In Unix, Which system call creates the new process?  
 a) fork  
 b) Create  
 c) new  
 d) None of the mentioned
- Q.6 Memory management technique in which system stores and retrieves data from secondary storage for use in main memory is called?  
 a) Fragmentation  
 b) Paging  
 c) Mapping  
 d) None of the mentioned
- Q.7 A set of processes is in deadlock if \_\_\_\_\_  
 a) each process is blocked and will remain so forever  
 b) each process is terminated  
 c) all processes are trying to kill each other  
 d) none of the mentioned.
- Q.8 The processes that are residing in main memory and are ready and waiting to execute are kept on this called \_\_\_\_\_  
 a) job queue                      b) ready queue  
 c) execution queue              d) process queue
- Q.9 The \_\_\_\_\_ swaps processes in and out of the memory.  
 a) Memory manager    b) CPU  
 c) CPU manager        d) User
- Q.10 \_\_\_\_\_ is the concept in which a process is copied into the main memory from the secondary memory according to the requirement  
 a) Paging                      b) Demand paging  
 c) Segmentation              d) Swapping

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### SECTION-B

- Note:** Objective type questions. All questions are compulsory. 10x1=10
- Q.11 What is operating system  
 Q.12 Define GUI  
 Q.13 What is the difference between process and programs?  
 Q.14 What is virtual memory?  
 Q.15 What is Process Control Block?  
 Q.16 What is deadlock?  
 Q.17 What is fragmentation?  
 Q.18 What is file?  
 Q.19 What is spooling?  
 Q.20 What is the difference between internal commands and external commands?

### SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5=60
- Q.21 What is interrupt? How it is handled by OS  
 Q.22 What is Short-term scheduler(CPU scheduler) describes with diagram  
 Q.23 Differentiate between Shortest Job first (SJF) scheduling and Shortest Remaining Time Next (SRTN) scheduling.  
 Q.24 Define process. Draw the process life cycle & explain in briefly.  
 Q.25 What is Preemptive CPU scheduling? How it is different from Non Preemptive CPU scheduling.  
 Q.26 Explain deadlock detection & recovery.  
 Q.27 Write a short note on device controller.  
 Q.28 Define Memory mapped I/O

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- Q.24 Explain NAND gate as universal gate. (CO-4)  
 Q.25 Explain De Morgan's theorem. (CO-5)  
 Q.26 Explain full adder with circuit diagram. (CO-6)  
 Q.27 Explain with circuit diagram about 4:1 MUX. (CO-7)  
 Q.28 Differentiate between latch and flip flop. (CO-8)  
 Q.29 Explain with diagram RS Flip Flop. (CO-8)  
 Q.30 What do you mean by ripple of a counter? (CO-9)  
 Q.31 Explain about encoder with block diagram. (CO-7)  
 Q.32 Explain NOR gate with truth table. (CO-4)  
 Q.33 Explain with diagram about SISO shift register. (CO-10)  
 Q.34 Differentiate between static and dynamic RAM. (CO-11)  
 Q.35 Explain applications of A/D convertor. (CO-12)

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20
- Q.36 Explain with the help of diagram the working of Asynchronous Decade Counter. (CO-9)  
 Q.37 Explain in detail with the help of diagram about successive-approximation analog-to-digital converter. (CO-11)  
 Q.38 Write short note on : (CO-12)  
 i) 74181 ALUIC ii) EPROM

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### 3rd SEM / Subject : Digital Eltx-I

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 The binary number 0110 1100 is of \_\_\_\_\_ bytes. (CO-2)  
 a) 1 b) 2 c) 3 d) 4
- Q.2 An inverter is also called as \_\_\_\_\_ gate. (CO-4)  
 a) NAND b) NOT  
 c) NOR d) AND
- Q.3 According to boolean algebra, which of the following is not Valid? (CO-5)  
 a)  $X+X = 1$  b)  $1.X = X$   
 c)  $0.X = X$  d)  $X.X = 1$
- Q.4 A half adder can add \_\_\_\_\_ number of bits. (CO-6)  
 a) 1 b) 3  
 c) 2 d) 4

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Q.5 The number of select lines for 1:16 DEMUX are \_\_\_\_\_ (CO-7)

- a) 1                                      b) 4  
c) 2                                      d) 3

Q.6 When an inverter is placed between the inputs of SR flip flop, then resulting flip flop is \_\_\_\_\_. (CO-8)

- a) T flip flop                              b) D flip flop  
c) JK flip flop                              d) None of these

Q.7 What is the maximum modulus of a counter with four number of flip flop ? (CO-9)

- a) 4    b) 32  
c) 8    d) 16

Q.8 A three variable K-Map has \_\_\_\_\_ cells. (CO-5)

- a) 4    b) 16  
c) 8    d) 10

Q.9 Shift register is a combination of \_\_\_\_\_ (CO-10)

- a) Flip Flops                              b) Encoders  
c) Decoders                                d) Counters

Q.10  $A+A =$  \_\_\_\_\_ (CO-5)

- a) 0    b) 1  
c) 01                                         d) 10

## SECTION-B

**Note:** Objective type questions. All questions are compulsory. 10x1 = 10

Q.11 Ordinary electric switch is a \_\_\_\_\_ device. (CO-1)

Q.12 One's complement of 101101 is \_\_\_\_\_ (CO-2)

Q.13 Full adder has \_\_\_\_\_ number of inputs. (CO-5)

Q.14  $A.A =$  \_\_\_\_\_ (CO-6)

Q.15 SIPO stands for \_\_\_\_\_ . (CO-10)

Q.16 A NOR gate is basically a \_\_\_\_\_ gate followed by \_\_\_\_\_ gate. (CO-4)

Q.17 ALU stands for \_\_\_\_\_ . (CO-12)

Q.18 16:1 MUX has \_\_\_\_\_ number of select lines. (CO-7)

Q.19 The minimum number of flip flops required for a decade counter is \_\_\_\_\_. (CO-8)

Q.20 EEPROM stands for \_\_\_\_\_. (CO-12)

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5 = 60

Q.21 What are the advantages of digital signal over analog signal? (CO-1)

Q.22 Convert  $(75)_{10} = (?)_2 = (?)_8 = (?)_{16}$ . (CO-2)

Q.23 Convert binary number 110101 into gray code. (CO-3)

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- Q.26 Give any three advantages of digital music. (CO-6)
- Q.27 Define compression. Explain the various types of compression. (CO-6)
- Q.28 Explain MPEG format in brief. (CO-5)
- Q.29 Define cropping. Explain the various steps to crop an image. (CO-4)
- Q.30 Differentiate between vector graphics and raster graphics. (CO-3)
- Q.31 Write any five important features of Photoshop. (CO-4)
- Q.32 Explain the main parts of a Flash Window. (CO-5)
- Q.33 Write the step to transforms an image in adobe flash (CO-4)
- Q.34 Explain the use of authoring tool. (CO-5)
- Q.35 Define frame rate. How will you change it ? (CO-2)

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain the applications of Multimedia in any five fields. (CO-1)
- Q.37 Explain the different steps of Project Planning in detail. (CO-2)
- Q.38 Explain the various selection tools of Photoshop in detail. (CO-4)

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**3rd Sem. / Computer Engg.**

**Subject : Multimedia Applications**

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The storage device which offers highest data density ? (CO-2)
- a) Hard Disk                      b) CD  
c) DVD                                d) Floppy
- Q.2 Default extension of Photoshop image file is ..... (CO-4)
- a) PSD                                b) PSP  
c) PVD                                d) PHP
- Q.3 The characteristic of a multimedia system is ..... (CO-1)
- a) High Storage  
b) High Data Rates & High Storage  
c) High Data Rates    d) None of these
- Q.4 \_\_\_\_\_ is an extension of a video file (CO-2)
- a) MP3                                b) MP4  
c) M3U                                d) MIDI

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**3rd Sem. / Comp, IT**  
**Subject : Data Communication**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The information to be communicated in a data communications system is the \_\_\_\_\_ (CO-1)  
a) Medium                      b) Protocol  
c) Transmission              d) Message
- Q.2 In asynchronous transmission, the gap time between bytes is \_\_\_\_\_ (CO-4)  
a) Variable                      b) Fixed  
c) Zero                              d) A function of the data rate
- Q.3 Which multiplexing technique transmits digital signals? (CO-2)  
a) WDM                              b) FDM  
c) TDM                              d) None of the above
- Q.4 A \_\_\_\_\_ error means that two or more bits in the data unit have changed. (CO-5)  
a) burst                              b) double-bit  
c) single-bit                      d) none of the above
- Q.5 \_\_\_\_\_ cable consists of an inner copper core and a second conducting outer sheath. (CO-3)  
a) Twisted-pair              b) Shielded twisted-pair  
c) Coaxial                              d) Fiber-optic

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- Q.6 Transmission media are usually categorized as \_\_\_\_\_ (CO-3)

- a) determinate or indeterminate  
b) fixed or unfixed  
c) guided or unguided  
d) metallic or nonmetallic

- Q.7 \_\_\_\_\_ can impair a signal. (CO-4)

- a) Noise                              b) Attenuation  
c) Distortion                      d) All of the above

- Q.8 \_\_\_\_\_ is the rate of change with respect to time.

- a) Time                              b) Frequency  
c) Amplitude                      d) Voltage (CO-4)

- Q.9 Data can be \_\_\_\_\_. (CO-2)

- a) digital                              b) analog  
c) (a) or (b)                      d) none of the above

- Q.10 \_\_\_\_\_ are used for short-range communications such as those between a pc and a peripheral device. (CO-3)

- a) Radio waves                      b) Infrared waves  
c) Microwaves                      d) None of the above

**SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define the term bandwidth. (CO-2)
- Q.12 LAN stands for \_\_\_\_\_. (CO-1)
- Q.13 Mention the advantage of twisted pair cable. (CO-3)
- Q.14 The \_\_\_\_\_ is the physical path over which message travels. (CO-1)

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- Q.15 A \_\_\_\_\_ is a data communication system within a building, plant, or campus, or between nearby buildings. (LAN / WAN). (CO-1)
- Q.16 \_\_\_\_\_ conversion is the process of changing one of the characteristics of an analog signal based on the information in the digital data. (CO-2)
- Q.17 Define the term throughput. (CO-1)
- Q.18 Why analog -to-analog modulation technique is required. (CO-2)
- Q.19 Define periodic signals. (CO-2)
- Q.20 What are burst errors. (CO-5)

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What are the component of data communication model. Discuss is brief. (CO-1)
- Q.22 What is amplitude shift keying (ASK) Explain in brief. (CO-2)
- Q.23 Explain in brief digital to digital conversion schemes. (CO-2)
- Q.24 Write short notes on a) Radio wave b) microwave (CO-3)
- Q.25 Explain in brief that how parties is use in error detection. (CO-5)
- Q.26 Write short note on transmission impairment. (CO-4)
- Q.27 Differentiate between : (CO-2)
- a) Periodic and non periodic signals
- b) analog and digital signals.

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- Q.28 What do you understand by PCM. (CO-2)
- Q.29 Compare wave length division multiplexing and time Division multiplexing. (CO-2)
- Q.30 Discuss in brief infrared Transmission media. (CO-3)
- Q.31 What is Modulation and why we need modulation. (CO-2)
- Q.32 Write short notes on: (a) AM (b) PM (CO-2)
- Q.33 Write down the advantages and dis-advantages of twisted pair cable. (CO-3)
- Q.34 Differentiate between detection and correction. (CO-5)
- Q.35 Differentiate between Guided and Unguided media. (CO-3)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 What is guided media? What are the different types of guided media. Explain them in detail. (CO-3)
- Q.37 Compare LAN, WAN, and MAN. (CO-1)
- Q.38 What are different error correction methods. Explain any one in detail. (CO-5)

Note: Course Outcome (CO) mentioned in the question paper is for official purpose only.

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**3rd Sem. / Computer Engineering**  
**Subject : Programming in C**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The pictorial representation of a algorithm is called \_\_\_\_\_  
a) Algorithm                      b) Program  
c) Code                              d) Flow chart
- Q.2 Among unary operation which operator represent increment?  
a) -                                      b) ++  
c) -                                      d) !
- Q.3 A function \_\_\_\_\_  
a) May or may not pass parameters  
b) May or may not return a value  
c) Both a and b  
d) None of these
- Q.4 C programs are converted into machine language with the help of  
a) An Editor  
b) A compiler  
c) An operating system  
d) None of the above

- Q.5 What is an array?  
a) An array is a collection of variables that are the dissimilar data type.  
b) An array is a collection of variables that are of the same data type.  
c) An array is not a collection of variables that are the same data type.  
d) None of the above.
- Q.6 What is the work of break keyword?  
a) Halt execution of program  
b) Restart execution of program  
c) Exit from loop or switch statement  
d) None of the above
- Q.7 C language developed at \_\_\_\_\_?  
a) AT & T's Bell Laboratories of USA in 1972  
b) AT & T's Bell Laboratories of USA in 1970  
c) Sun Microsystems in 1973  
d) Cambridge University in 1972
- Q.8 Which symbol is used as a statement terminator in C?  
a) !                                      b) #  
c) ~                                      d) ;
- Q.9 Which pair of functions below are used for single character I/O.  
a) Getchar() and putchar()  
b) Scanf() and printf()  
c) Input() and output()  
d) None of these
- Q.10 Continue statement is used  
a) to go to the end of the loop  
b) come cut of a loop  
c) exit and return to the main function  
d) go to beginning of the loop

## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Give the syntax for the while loop in c.
- Q.12 Define Variable.
- Q.13 While defining a variables name, you can use any special character. (True/False)
- Q.14 Define pointer.
- Q.15 Give the syntax of "if statement" in c language .
- Q.16 Where are the global variables declared in a C program.
- Q.17 What are various types of comment statements used in C language.
- Q.18 A character type variable requires \_\_\_\_\_ bytes to be stored in memory.
- Q.19 Give the format specifier used for
  - a) Integer
  - b) float
- Q.20 Name any two unconditional control statements in C.

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Differentiate between STRUCTURE and UNION.
- Q.22 Discuss the various symbols used for constructing a flow chart.
- Q.23 Define recursion? Give the program for finding factorial of a number using recursion.
- Q.24 Write a program to print the table of a given number.
- Q.25 Give the difference between call by value and call by reference.
- Q.26 Define Array. What are the various types of arrays? Discuss in brief.
- Q.27 What are strings? Discuss any three string related

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functions

Q.28 Are the following statements in C correct ? If not give reasons.

- a) Print ( "Hello Everyone")
- b) Scanf ( "%d", fact);
- c) int a==30;
- d) for (i=0, i<=10, i++)
- e) a + b = c;

Q.29 Give advantages of using functions in a program.

Q.30 Why do we use STRUCTURE? How a structure is declared .

Q.31 Discuss the formatted input and output statements used in C.

Q.32 Write a short note on any one of the following

- i) Program Debugging
- ii) Data type casting

Q.33 Give the syntax of SWITCH statement. Discuss in brief.

Q.34 Differentiate between WHILE and DO-WHILE loops.

Q.35 What are Global and Local variables. Discuss in brief.

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20

Q.36 Write a program in C for multiplication of two matrices.

Q.37 Explain the steps involved in development of a program.

Q.38 Discuss the various operators used in C.

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**4th Sem./ Computer Engg**

**Subject : Object Oriented Programming  
using JAVA**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 In which year Java was developed

- a) 1972                      b) 1986
- c) 1995                     d) 2001

Q.2 Who is known as father of Java Programming Language?

- a) James Gosling      b) M.P. Java
- c) Charel Babbage     d) Blais Pascal

Q.3 ++is a \_\_\_\_\_operator

- a) Arithmetic            b) Unary
- c) Conditional          d) Logical

Q.4 JVM stands for

- a) Java Very Large Machine
- b) Java Verified Machine
- c) Java Verified Machine
- d) Java Virtual Machine

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Q.5 In Java code, the line that begins with/\* and ends with \*/is known as?

- a) Multiline comment    b) Single line comment
- c) Both A&B              d) None of these

Q.6 The wrapping up of data and functions into a single unit is called

- a) Encapsulation        b) Abstraction
- c) Data Hiding            d) Polymorphism

Q.7 Which of the following is not a Java features

- a) Multi threaded        b) Portable
- c) Use of pointers        d) Object Oriented

Q.8 Which of the following is not java keyword

- a) if                              b) switch
- c) then                          d) class

Q.9 Every statement in java language should end with a?

- a) Dot                            b) Comma
- c) Semicolon                d) colon

Q.10 Decrement operator, -, decrease value of variable by what number

- a) 2                                b) 3
- c) 0                                d) 1

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## SECTION-B

**Note:** Objective Completion type questions. All questions are compulsory. (10x1=10)

- Q.11 Define Function.
- Q.12 Expand POP.
- Q.13 Define Class
- Q.14 Write two applications of OOPS
- Q.15 Define Java.
- Q.16 Expand JDK
- Q.17 Define Constant
- Q.18 Define abstract class
- Q.19 Define Exception
- Q.20 Expand IDE

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Difference between Object & Class.
- Q.22 Explain various features of JAVA.
- Q.23 Explain various operators available in JAVA
- Q.24 Explain input & output statements used in JAVA
- Q.25 Define Constructor. How it is created in JAVA

- Q.26 Explain various access specifiers used in JAVA
- Q.27 Define Exception. How it is handled in JAVA
- Q.28 What is method overloading. How it is implemented in JAVA
- Q.29 Explain various data types available in JAVA
- Q.30 Explain various forms of JF statement.
- Q.31 Write a program to print factorial of 5.
- Q.32 Define Package. How it is created.
- Q.33 Define Interface. How it is implemented.
- Q.34 Difference between POP & OOPS
- Q.35 Explain Java Program structure

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain various loops available in java with example.
- Q.37 Explain various concepts of OOP.
- Q.38 Define Inheritance. Name its various types. Write a program to implement Single Inheritance.



- Q.17 Define Linked List. (CO3)  
 Q.18 Give postfix notation of A+B-C/D. (CO2)  
 Q.19 In a queue, the initial values of front pointer  
 f rare pointer r should be \_\_\_\_\_ and \_\_\_\_\_ (CO2)  
 Q.20 What is two Dimensional Array? (CO1)

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What is Singly linked list? Explain with algorithm and example. (CO3)  
 Q.22 What is Binary Search Tree? Write down its properties. (CO5)  
 Q.23 Explain Preorder, Postorder and Inorder traversal with example. (CO2)  
 Q.24 Explain Linear queue with example? What are its disadvantages? (CO2)  
 Q.25 Write algorithm for insertion and deletion of element in stack. (CO2)  
 Q.26 Explain linear and Non Linear Data Structures. (CO1)  
 Q.27 Write the difference between Static and Dynamic Memory allocation. (CO1)  
 Q.28 Construct a binary tree whose node are as under (Co5)  
 Preorder: ABDGHCEFIKJ  
 Inorder: BGHDAE CIKFJ  
 Q.29 Write down algorithm for Linear Search. (CO6)

- Q.30 What do you mean by Data structure? Explain the various data structure operations. (CO1)  
 Q.31 Explain terms used in Queue. (CO2)  
 Q.32 How can Linked list overcome the limitations of array? (CO2)  
 Q.33 Define the terms in binary tree: Path, Sibling, Level of a node Height of Tree. (CO5)  
 Q.34 Explain Bubble Sort. (CO4)  
 Q.35 Why Stack is known as LIFO? What is the significance of TOP pointer? (CO2)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Convert the following expression into postfix notation using stack with algorithm (CO2)  
 $(A + B * (C - D)) / E$   
 Q.37 What do you mean by Sorting? Explain why it is required. Also name some sorting algorithms and explain. (CO4)  
 Q.38 What is an array? What are types of array? Explain how elements are stored in memory? (CO3)

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**Comp, IT, CNC, CAD/CAM**

**Subject : Database Management System/RDBMS**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Which of the following SQL command can be used to modify existing data in a database table? (CO7)

- a) MODIFY                      b) UPDATE
- c) CHANGE                     d) NEW

Q.2 The relational model is based on the concept that data is organized and stored in two-dimensional tables called \_\_\_\_\_. (CO4)

- a) Fields                        b) Records
- c) Relations                    d) Keys

Q.3 A set of possible data values is called \_\_\_\_\_. (CO4)

- a) attribute                    b) degree
- c) tuple                         d) domain

Q.4 A \_\_\_\_\_ represent the number of entities to which another entity can be associated. (CO4)

- a) mapping cardinality
- b) table
- c) schema
- d) information

Q.5 \_\_\_\_\_ is a full form of SQL. (CO7)

- a) Standard query languages
- b) Sequential query languages
- c) Structured query languages
- d) Server side query languages

Q.6 In relational database, a record can also be referred as \_\_\_\_\_. (CO4)

- a) a criteria                    b) a relation
- c) a tuple                        d) an attribute

Q.7 The collection of information stored in a database at a particular moment is called as \_\_\_\_\_. (CO2)

- a) schema
- b) instance of the database
- c) data domain
- d) independence

Q.8 Which database level is closest to the users?

- a) External                      b) Internal (CO2)
- c) Physical                      d) conceptual

Q.9 The overall description of the database is known as: (CO2)

- a) Data manipulation        b) Database schema
- c) Data definition            d) Data integrity

Q.10 Which of the following command is used to delete a table from the database? (CO7)

- a) DROP                         b) DELETE
- c) TRUNCATE                  d) REMOVE

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### SECTION-B

**Note:** Objective Completion type questions. All questions are compulsory. (10x1=10)

- Q.11 What is Entity ? (CO3)  
Q.12 \_\_\_\_\_Key identify tuples uniquely. (CO3)  
Q.13 Define schema. (CO2)  
Q.14 DCL stands for\_\_\_\_\_. (CO7)  
Q.15 BCNF stands for\_\_\_\_\_. (CO5)  
Q.16 Define Trival Dependency. (CO5)  
Q.17 What do you mean by Relation. (CO4)  
Q.18 What are Views? (CO6)  
Q.19 Define Primary Key. (CO4)  
Q.20 DBA stands for\_\_\_\_\_. (CO1)

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain various mapping constraints with example. (CO4)  
Q.22 Explain in brief various data models. (CO3)  
Q.23 Differentiate between physical data impendence and logical data impendence. (CO2)  
Q.24 What is normalization ? Explain any one normal form with example. (CO5)  
Q.25 What in DBMS? List it any four advantages. (CO1)  
Q.26 Explain the concept of trival and non-trival dependencies. (CO5)  
Q.27 Explain terms, Entity, attributes, Entity types and Entity sets with examples. (CO3)

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- Q.28 Briefly explain the roles of database administrators and database designers in DBMS. (CO1)  
Q.29 Explain the use of grant and revoke with example. (CO6)  
Q.30 Explain terms domain constraints, key constraints and constraints on Null. (CO4)  
Q.31 Explain the concept of Big Data. (CO7)  
Q.32 Explain various types of relationship among Entities. (CO3)  
Q.33 Explain Boyce/ Codd Normal form in detail. (CO5)  
Q.34 What are Indexes ? How they can be created and used. (CO6)  
Q.35 Write short note on following: (CO4)  
a) Entity Integrity  
b) Key Constraints

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 What do you mean by DBMS architecture. Describe three level DBMS architecture with the help of diagram? (CO2)  
Q.37 What do you mean by DML. Explain various operations that can be performed on a table under DML commands. (CO7)  
Q.38 Write short note on followings:  
a) Database Designers  
b) Tool Developers  
c) System Analyst

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- Q.5 Handshaking mode of data transfer is (CO4)  
 a) Synchronous data transfer  
 b) Asynchronous data transfer  
 c) Interrupt driven data transfer  
 d) Level mode of data transfer
- Q.6 In a microprocessor, the address of next new instruction to be executed is store in (CO1)  
 a) Stack pointer      b) Address latch  
 c) Program counter   d) Accumulator
- Q.7 Following is a 16 bit register for 8085 microprocessors (CO1)  
 a) Stack pointer      b) Accumulator  
 c) Register B          d) Register C
- Q.8 Which of the following is not a pair of general purpose registers? (CO1)  
 a) AB                      b) BC  
 c) DE                      d) HL
- Q.9 NOP stand for (CO2)  
 a) No operation  
 b) No objection  
 c) New operation  
 d) none of the mentioned
- Q.10 DMA stands for (CO4)  
 a) Direct memory access  
 b) Direct memory accumulator  
 c) Direct mail access  
 d) None of the mentioned

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## SECTION-B

- Note:** Objective Completion type questions. All questions are compulsory. 10x1=10
- Q.11 Word size of 8085 is \_\_\_\_\_ bits. (CO1)
- Q.12 Instruction cycle=Fetch cycle+\_\_\_\_\_ (CO2)
- Q.13 Name the data transfer techniques in which hand shaking is used. (CO3)
- Q.14 Expand PPI. (CO4)
- Q.15 Name two functional units of 8086. (CO5)
- Q.16 RST 7.5 is mask able interrupt (True/False) (CO3)
- Q.17 Define Stacks. (CO2)
- Q.18 Which bus is bidirectional? (CO1)
- Q.19 Clock frequency determine \_\_\_\_\_ of the processor. (CO2)
- Q.20 Why is carry flag used? (CO1)

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5=60
- Q.21 Compare RIM & SIM. (CO2)
- Q.22 Differentiate between hardware & software interrupts. (CO3)
- Q.23 Draw and explain the timing diagram of memory read and write operation. (CO2)
- Q.24 Explain peripheral I/O memory mapped I/O. (CO4)
- Q.25 What is memory interfacing? Explain with diagram. (CO5)

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- Q.27 Explain input and output interface. (CO5)  
 Q.28 Explain DMA. (CO6)  
 Q.29 Explain FIFO buffer. (CO5)  
 Q.30 What are optical memories? (CO4)  
 Q.31 What is magnetic Disk? (CO4)  
 Q.32 Explain Control word. (CO2)  
 Q.33 Write short note on multiprocessor organization (CO6)  
 Q.34 What are the steps needed to process instruction? (CO6)  
 Q.35 What is parallel processing? (CO6)

**SECTION-D**

- Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20  
 Q.36 What is CPU and also explain general register organization in detail? (CO1)  
 Q.37 Explain memory hierarchy in detail. (CO4)  
 Q.38 Explain the various types of pipelining. (CO6)

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**4th Sem./ CSE**

**Subject : Computer Organisation**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 RISC stands for (CO3)  
 a) Reduced instruction set compiler  
 b) Reduced instruction set computer  
 c) Random instruction set compiler  
 d) None of them
- Q.2 CISC stands for (CO3)  
 a) Complex instruction set compiler  
 b) Compiled instruction set computer  
 c) Complex instruction set computer  
 d) None of them
- Q.3 RAM is also called (CO4)  
 a) Read access memory  
 b) Read / write memory  
 c) Read only memory  
 d) None of them

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- Q.4 Which memory device is made of semiconductor? (CO4)  
 a) RAM                                      b) Hard Disk  
 c) Floppy disk                              d) CD disk
- Q.5 \_\_\_\_\_bus structure is usually used to connect I/O devices. (CO5)  
 a) Multiple bus                              b) Single bus  
 c) Starbus                                      d) Rambus
- Q.6 During the transfer of data between the processor and memory we use\_\_\_\_\_ (CO4)  
 a) Cache                                      b) TLB  
 c) Buffers                                      d) Register
- Q.7 The RISC processor has a more complicated design than CISC. (True/False) (CO3)
- Q.8 Which of the architecture is power efficient? (CO3)  
 a) CISC                                      b) RISC  
 c) ISA    d) IANA
- Q.9 BIOS means (CO3)  
 a) Bidirectional input output system  
 b) Basic interfacing output system  
 c) Basic Input output System  
 d) None of them
- Q.10 DMA stands for (CO3)  
 a) Digital Memory Access  
 b) Direct memory address  
 c) Direct memory Access  
 d) None of them

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## SECTION-B

- Note:** Objective Completion type questions. All questions are compulsory. 10x1=10
- Q.11 CPU stands for\_\_\_\_\_ (CO1)
- Q.12 Expand EPROM (CO4)
- Q.13 CD-Rom stands for\_\_\_\_\_ (CO4)
- Q.14 Define immediate mode (CO5)
- Q.15 Expand SIMD (CO6)
- Q.16 Expand MIMD (CO6)
- Q.17 Name two types of stack (CO1)
- Q.18 ALU performs the required micro-operations for executing the\_\_\_\_\_ (CO1)
- Q.19 The I/O bus consists of\_\_\_\_\_, \_\_\_\_\_and\_\_\_\_\_ (CO5)
- Q.20 \_\_\_\_\_is a technique of decomposing a sequential process into sub-operations. (CO6)

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5=60
- Q.21 What do you mean by instruction format? (CO1)
- Q.22 Difference between RISC and CISC processors. (CO3)
- Q.23 What is stack and explain its type of brief. (CO1)
- Q.24 What is cache memory? (CO4)
- Q.25 Explain virtual memory. (CO4)
- Q.26 What do you mean by the term Memory? (CO4)

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## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1 = 10)

- Q.11 WLAN stands for \_\_\_\_\_?
- Q.12 How many layers are in TCP/IP model?
- Q.13 P2P \_\_\_\_\_?
- Q.14 OSI stands for \_\_\_\_\_
- Q.15 HTTP stands for \_\_\_\_\_
- Q.16 Electronic mail uses \_\_\_\_\_ protocol?
- Q.17 WiMAX stands for \_\_\_\_\_
- Q.18 The size of an IP address in IPv6 is \_\_\_\_\_
- Q.19 The network layer is concerned with \_\_\_\_\_ of data.
- Q.20 Physical or logical arrangement of network is \_\_\_\_\_

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5 = 60)

- Q.21 Explain any four types of Networking Typologies technologies
- Q.22 Write a note on Routers?
- Q.23 Write a note on Modem and its types?

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Q.24 Distinguish between WLAN and WAN.

Q.25 Write a note on DHCP server

Q.26 What is computer network? Explain the uses of computer network.

Q.27 Explain in brief any two troubleshooting tools.

Q.28 Describe client server network.

Q.29 Compare between IPV4 and IPV6.

Q.30 Distinguish between Logical Physical addressing with five points

Q.31 Explain the concept of Supernetting?

Q.32 Explain the concept of cryptography.

Q.33 Explain various switching techniques.

Q.34 Write a note on Loop back concept?

Q.35 Write a note on WiMAX

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10 = 20)

Q.36 Explain different types of IP address classes?

Q.37 Explain OSI model in detail and function of each layer.

Q.38 Compare Bluetooth and Wifi?

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**5th Sem./ Computer Engineering**

**Subject : Web Development Using PHP / PHP**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 PHP stands for \_\_\_\_\_ (CO2)  
a) PHP Hypertext Processor  
b) PHP Hyper Markup Processor  
c) PHP Hyper Markup Preprocessor  
d) PHP Hypertext Preprocessor
- Q.2 PHP is an example of \_\_\_\_\_ scripting Language. (CO2)  
a) Server side                      b) Client Side  
c) Browser Side                      d) In-Side
- Q.3 The year in which HTML was first proposed \_\_\_\_\_ (CO1)  
a) 1990                                  b) 1980  
c) 2006                                  d) 1995
- Q.4 Which of the following function returns the number of characters in a String variables? (CO2)  
a) Count (\$ variable)  
b) len(\$ variable)  
c) Strcount (\$ variable)  
d) strlen (\$ variable)

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- Q.5 Which of the following function creates an array?(CO2)  
a) array ()  
b) array\_change\_key\_case()  
c) array\_chunk ()  
d) array\_count\_values()
- Q.6 Which tag is used to display a picture in a HTML page? (CO1)  
a) Picture                                  b) Image  
c) img    d) pic
- Q.7 Tags and Text that are not directly displayed on the page are written in \_\_\_\_\_ Section. (CO1)  
a) <Head>                                  b) <Title>  
c) <body>                                  d) <html>
- Q.8 Which of the following is not a Browser? (CO2)  
a) Microsoft Bing  
b) Netscape Navigator  
c) Mozilla Firefox  
d) Opera
- Q.9 The virtual table that is created by data from the result of an SQL ' Select' Statements is called \_\_\_\_\_ (CO4)  
a) View    b) Synonym  
c) Sequence                                  d) Transaction
- Q.10 A database language used for defining the whole database structure and schema is called \_\_\_\_\_ (CO4)  
a) DCL    b) DML  
c) DDL    d) All of above

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## SECTION-B

**Note:** Objective Completion type questions. All questions are compulsory. (10x1=10)

- Q.11 Define Colspan Attribute in HTML. (CO1)  
Q.12 Write any five few elements in HTML5. (CO1)  
Q.13 What is Internal CSS? (CO1)  
Q.14 Who is the Father of PHP? (CO2)  
Q.15 What do you mean by Identifier in PHP?(CO2)  
Q.16 What is the use of Continue keyword in PHP? (CO2)  
Q.17 What is Associative Array? (CO2)  
Q.18 Define Field in MYSQL. (CO4)  
Q.19 Write the full form of DCL Command in MYSQL. (CO4)  
Q.20 Which function is used to open a Database Connection? (CO4)

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What do you mean by Hyperlinks in HTML? Explain various types of links used in HTML. (CO1)  
Q.22 What is the difference between Cellspacing and Cellpadding Attributes in HTML? (CO1)  
Q.23 What is the use of Frames in HTML and explain different attributes of frame in detail? (CO1)  
Q.24 What is PHP? Discuss its benefits and features in detail. (CO2)  
Q.25 What is the use of ID and Class attributes in CSS? Describe these with the help of example (CO2)  
Q.26 What is PHP Constants? Explain how you will create PHP constant. (CO2)

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- Q.27 What is decision Control Statements and briefly explain various types of decision making statement in PHP? (CO2)  
Q.28 Differentiate between Break and Continue statement in context of PHP. (CO2)  
Q.29 What do you mean by Array? Discuss types of Array with suitable examples in detail. (CO2)  
Q.30 What is the use of Function in PHP? Explain Parametrized function with example in detail. (CO3)  
Q.31 What is Radio Button Control? Describe it in context of PHP with suitable example. (CO3)  
Q.32 What do you mean by Cookie and explain the procedure of create and Delete Cookie with example. (CO3)  
Q.33 What is Table? Briefly explain how you will insert rows into a Table in MYSQL. (CO4)  
Q.34 What do you mean by MYSQL and discuss various command categories used in MYSQL? (CO4)  
Q.35 What is Select Command? Explain how it is used with PHP Script. (CO4)

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 What is HTML Forms? Describe various type of HTML Form Controls in detail. (CO1)  
Q.37 i) Write a program in PHP to find greatest Number among Three Numbers. (CO2)  
ii) Write a program in PHP to print the Factorial of a given number. (CO2)  
Q.38 What do you mean by Operator? Discuss different types of operators in PHP with suitable examples. (CO2)

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- Q.27 Write a program in Python to find the largest numbers among three numbers. (CO-3)
- Q.28 Define variable and what are the rules for creating variables in Python. (CO-2)
- Q.29 Define the module and how it is imported into a Python file. (CO-6)
- Q.30 Explain assert statement with an example. (CO-10)
- Q.31 Write a program to write the contents of a file. (CO-8)
- Q.32 What are the benefits of using functions in Python? (CO-5)
- Q.33 Explain inheritance with the help of an example. (CO-9)
- Q.34 Explain substituting in Regular expression.(CO-10)
- Q.35 Explain the constructor and its types in brief. (CO-9)

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Define class and object and describe how they are implemented in Python. (CO-10)
- Q.37 Explain the various types of parameters passing in Python. justify you answer with sample programs. (CO-5)
- Q.38 List and explain different arithmetic operators of Python with their precedence and associativity (CO-3)

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### 5th SEM / Computer Engg, Subject : Computer Programming Using Python

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 Python is which type language (CO-1)  
a) Object Oriented      b) Procedure oriented  
c) Schema Oriented      d) None of the above
- Q.2 How to create a variable in Python with value 34? (CO-2)  
a) int a=34                  b) a =34  
c) integer a = 34          d) None
- Q.3 How to add a multi-line comment in Python?(CO-2)  
a) /\*This is comment      b) !! This is comment  
c) // This is comment      d) ""This is comment""
- Q.4 How to access a value in List? (CO-4)  
a) mytuple =()              b) mytuple =(0)  
c) mytuple = 0              d) mytuple =
- Q.5 How to access a value in List? (CO-4)  
a) Mylist (1)                b) mylist [1]  
c) mylist {1}                d) None of the above

- Q.6 Name of the operators which operate on bits (CO-3)
- Bitwise Operators
  - Exponentiation Operator
  - Identity Operator
  - Membership Operators
- Q.7 Name the thing which is not a core data type (CO-1)
- List
  - Tuples
  - Dictionary
  - class
- Q.8 The extension of a Python module is \_\_\_\_\_ (CO-6)
- .py
  - .mod
  - .pyy
  - None of the above
- Q.9 How to align a string centrally in Python? (CO-2)
- align () method
  - center () method
  - fill () method
  - None of the above
- Q.10 The developer of Python is \_\_\_\_\_ (CO-1)
- Denis Ritchie
  - Guido Van Rossum
  - Peter Norton
  - John Backus

### SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1 = 10)

- Q.11 The words having a special meaning in Python are known as \_\_\_\_\_ (CO-4)
- Q.12 Python is a case sensitive language. (True/False) (CO-2)

- Q.13 The function which converts all characters of a string to lowercase is \_\_\_\_\_ (CO-2)
- Q.14 List allows duplicate values. (True/False) (CO-4)
- Q.15 The Data type which is used to implement the key-value pair in Python. (CO-4)
- Q.16 The keyword which is used to define a function. (CO-5)
- Q.17 The module that contains trigonometric and log arithmetic functions is. (CO-6)
- Q.18 Name the error that occurs when a number is divided by zero. (CO-7)
- Q.19 OOPS stands for \_\_\_\_\_ (CO-9)
- Q.20 Name the operator that is used to compare two operands and check them for equality? (CO-2)

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5 = 60)

- Q.21 Explain any four keywords or reserved words of Python. (CO-4)
- Q.22 Explain input and print function with example. (CO-5)
- Q.23 Explain for loop of Python. (CO-3)
- Q.24 Explain the usage of is, not and in operators of Python. (CO-2)
- Q.25 Differentiate between List and Tuples (CO-4)
- Q.26 Explain the lambda function with the help of a suitable example. (CO-4)



- Q.5 FCFS is:- (CO-7)
- First Can First Scheduling
  - Full Come Full Serve
  - First Come First Serve
  - Full Cost Full Serve
- Q.6 Which of the following is not a cloud Service Provider. (CO-2)
- Amazon
  - Microsoft
  - Google
  - None of above
- Q.7 API stands for. (CO-5)
- Application Programming Interface
  - Architecture Planning Interface
  - Apple Phone Interface
  - Amazon Planning Interface
- Q.8 AWS (CO-2)
- Apple Web Services
  - Architecture Web Services
  - Amazon Web Services
  - Advantage Web Services
- Q.9 Which cloud model is most secure:- (CO-2)
- Public
  - Community
  - Hybrid
  - Private
- Q.10 IaaS is also called (CO-2)
- Haas
  - Paas
  - Caas
  - Saas

## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1 = 10)
- Q.11 SMTP is \_\_\_\_\_ (CO-1)
- Q.12 Two types of Virtualization are \_\_\_\_\_ and \_\_\_\_\_ (CO-4)
- Q.13 Public cloud is most cost-effective (T/F) (CO-2)
- Q.14 Two cloud service Providers are \_\_\_\_\_ and \_\_\_\_\_ (CO-2)
- Q.15 VM stands for \_\_\_\_\_ (CO-4)
- Q.16 MLQ is \_\_\_\_\_ (CO-7)
- Q.17 Two types of SLA are \_\_\_\_\_ and \_\_\_\_\_ (CO-3)
- Q.18 PaaS is parameters as a service (T/F) (CO-2)
- Q.19 Cloud Computing is a form of outsourcing (T/F) (CO-1)
- Q.20 Vender lock-in is disadvantage of PaaS (T/F) (CO-2)

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5 = 60)
- Q.21 Elaborate at least five advantages of Public cloud. (CO-2)
- Q.22 List various characteristics of Cloud Computing. (CO-1)
- Q.23 Define virtualization and its types. (CO-4)
- Q.24 Differentiate between static and dynamic scheduling. (CO-7)

- Q.25 What are the sources of Unstructured data in Big data? CO(4)
- Q.26 What are the characteristics of Big Data? CO(4)
- Q.27 Why we are using Pig? CO(1)
- Q.28 Why is Hadoop used in Big data analytics? CO(4)
- Q.29 Define Active and Passive Name nodes. CO(2)
- Q.30 How is NFS different from HDFS? CO(3)
- Q.31 Is Big Dta Really the Future? CO(1)
- Q.32 What are various Big Data tools? CO(2)
- Q.33 Define term velocity and value? CO(1)
- Q.34 What is the function of HDFS? CO(1)
- Q.35 Is Hadoop different from other parallel computing systems? CO(3)

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20
- Q.36 Describe Map Reduce in detail? How it works? CO(4)
- Q.37 How is Hadoop related to big Data? Describe its components. CO(2)
- Q.38 What are five Vs in Big Data ? Expalin? CO(1)

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#### 5th SEM / Computer Subject : Big data

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 \_\_\_\_\_ is the slave/worker node and holds the user data in the form of Data CO(2)
- a) Data Node                      b) Name Node  
c) Data block                      d) Replication
- Q.2 H Base uses the \_\_\_\_\_ File System to store its data. CO(4)
- a) Hive                                  b) Impala  
c) Hadoop                              d) Scala
- Q.3 Advanced users can write \_\_\_\_\_ code to manipulate R objects directly. CO(5)
- a) C                                      b) C++  
c) Jave                                  d) None
- Q.4 What is Hive? CO(4)
- a) An open source data ware house system  
b) Relational database  
c) OLTP  
d) A language

- Q.5 Which of the following function is used to read data in PIG? CO(4)
- a) Write                      b) Read  
c) Load                      d) Run
- Q.6 Which of the following is an example of a vector graphics device in R? CO(5)
- a) JPEG                      b) GIF  
c) PNG                      d) SVG
- Q.7 What are the five V's of Big data? CO(1)
- a) Volume                      b) Velocity  
c) Variety                      d) All the above
- Q.8 Face book tackles Big Data with \_\_\_\_\_ based on Hadoop CO(3)
- a) Project prism              b) Prism  
c) Project Data              d) Project Bid
- Q.9 Hadoop is a framework that works with a variety of related tools. Common cohorts include: CO(4)
- a) Map Reduce, Hive and H Base  
b) Map Reduce, My Sql and Goggle Apps  
c) Map Reduce, hummer and laguna  
d) Map Reduce, Heron , Trumpet
- Q.10 \_\_\_\_\_ is a platform for constructing data flows for extract, transform, and load (ETL) processing and analysis of large datasets. CO(4)
- a) Pig Latin                      b) Oozie  
c) Pig                      d) Hive

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## SECTION-B

**Note:** Objective type questions. All questions are compulsory. 10x1 = 10

- Q.11 What is distributed file system? CO(1)
- Q.12 Define matrices? CO(5)
- Q.13 Expand NAS? CO(3)
- Q.14 Hadoop is best for real time system. (True/False) CO(2)
- Q.15 Pig operates in mainly \_\_\_\_\_ nodes CO(4)
- Q.16 Define Shuffling CO(3)
- Q.17 Define R? CO(5)
- Q.18 What is Hadoop? CO(2)
- Q.19 What is Hive? CO(4)
- Q.20 What is Sorting? CO(2)

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5 = 60

- Q.21 Differentiate between Pig and Hive. CO(4)
- Q.22 What is task tracker? CO(1)
- Q.23 What is distributive cache? CO(4)
- Q.24 Differentiate between H Base and Hive.

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**5th Sem./ Comp, IT**

**Subject : Software Engg**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory  
(10x1=10)

Q.1 Which one of the following is not a step of requirement engineering? (CO2)

- a) elicitation
- b) design
- c) analysis
- d) documentation

Q.2 SLDC stands for (CO2)

- a) Software Development Life Cycle
- b) System Development Life Cycle
- c) Software Design Life Cycle
- d) System Design Life Cycle

Q.3 A step by step instruction used to solve a problem is known as (CO1)

- a) Sequential structure
- b) A list
- c) A plan
- d) An Algorithm

Q.4 The reason for software bugs and failures is due to (CO4)

- a) Software companies
- b) Software Developers
- c) Both Software companies and Developers
- d) All of the mentioned

Q.5 What is a software (CO2)

- a) Software is set of programs
- b) Software is documentation and configuration of data
- c) software is set of programs, documentation & configuration of data
- d) None of the mentioned

Q.6 Which of these is not true (CO2)

- a) Web has led to availability of software services and possibility of developing highly distributed service based systems
- b) Web based systems have led to degradation of programming languages.
- c) Web brings concept of software as service
- d) Web based system should be developed and delivered incrementally

Q.7 Coupling is a qualitative indication of the degree to which a module (CO5)

- a) Can be written more compactly
- b) focuses on just one thing
- c) is able to complete its function in a timely manner
- d) is connected to other modules and the outside world

Q.8 Cohesion is a qualitative indication of the degree to which a module (CO5)

- a) can be written more compactly
- b) focuses on just one thing
- c) is able to complete its function in a timely manner
- d) is connected to other modules and the outside world

Q.9 Which of these does not account for software failure? (CO3)

- a) Increasing Demand
- b) Low expectation
- c) Increasing Supply
- d) Less reliable and expensive

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- Q.10 "Software engineers should not use their technical skills to misuse other people's computers. "Here the term misuse refers to: (CO1)
- Unauthorized access to computer material
  - Unauthorized modification of computer material
  - Dissemination of viruses or other malware
  - All of the mentioned

### SECTION-B

**Note:** Objective Completion type questions. All questions are compulsory. 10x1=10

- Q.11 Closed systems are less prone to virus attack. (True/False) (CO1)
- Q.12 Gantt chart are useful tool for planning and scheduling projects. (True/False) (CO3)
- Q.13 What is the full form of SRS? (CO4)
- Q.14 Define the term LOC. (CO3)
- Q.15 Software design of a project act as \_\_\_\_\_ between problem domain and solution domain? (CO5)
- Q.16 What does level 0 DFD represent ? (CO5)
- Q.17 What is unit testing? (CO6)
- Q.18 Requirement Analysis is the process of understanding the customers \_\_\_\_\_ (CO4)
- Q.19 The degree of interdependence between two module is called \_\_\_\_\_. (CO5)
- Q.20 Define the term coding. (CO3)

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5=60

- Q.21 Write any three difference between software program and software product. (CO1)
- Q.22 Why spiral model is called Meta model? (CO2)
- Q.23 What are the various types of maintenance? (CO2)

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- Q.24 List any three benefits of modular design. (CO5)
- Q.25 When do we require system analysis? (CO4)
- Q.26 What is software design ? Explain in brief. (CO5)
- Q.27 Write short note on white box testing. (CO6)
- Q.28 What are the four basic characteristics of SRS? (CO4)
- Q.29 Difference between Coupling and Cohesion. (CO5)
- Q.30 What is DFD? Explain in brief. (CO5)
- Q.31 What are Gantt chart? How they are helpful as well? (CO5)
- Q.32 What is advantage and disadvantage of LOC? Write any three. (CO3)
- Q.33 What is software development life cycle (SDLC)? Explain in short. (CO2)
- Q.34 Explain the Responsibility of software Project Manager. (CO3)
- Q.35 Why we use Decision table? (CO2)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20

- Q.36 What is software configuration management in detail? (CO6)
- Q.37 Explain Waterfall model in detail with its limitations and benefits. (CO2)
- Q.38 What are the characteristics and feature of Good Software Design? (CO5)

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## SECTION-B

**Note:** Objective Completion type questions. All questions are compulsory. (10x1=10)

- Q.11 Define term hacking. (CO1)
- Q.12 What is IT Act 2000? (CO1)
- Q.13 Define heuristic Scanners. (CO3)
- Q.14 What are the different types of decryption? (CO2)
- Q.15 Define RSA. (CO2)
- Q.16 Explain teardrop attacks. (CO5)
- Q.17 Define Disposable policy. (CO6)
- Q.18 What is IDS? (CO5)
- Q.19 What are exchanging keys in VPN? (CO7)
- Q.20 Expand RAID. (CO8)

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Write down various features of IT Amendment Act 2000. (CO1)
- Q.22 Explain the concept of symmetric and a symmetric key cryptography. (CO2)
- Q.23 What are the configuration policy in handling of cyber assets system? (CO6)
- Q.24 Explain IDS teardrop attack? (CO5)
- Q.25 Explain Digital certification? (CO2)
- Q.26 Draw a neat diagram for VPN and explain it with example. (CO7)

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Q.27 Differentiate between encryption and decryption of data? (CO2)

Q.28 Explain disposable policy of cyber assets? (CO6)

Q.29 Define digital signature and IPsec. (CO2)

Q.30 Define cycle redundancy check. (CO2)

Q.31 What is virus? Explain its types. (CO3)

Q.32 Write a note on modifying security policy (CO7)

Q.33 Explain about network backups and recovery? (CO8)

Q.34 What is checksum verification? (CO3)

Q.35 What are various principal of data security? (CO1)

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 What do you mean by virus worms and Trojans explain their preventive measures. (CO3)

Q.37 What are the advantages and disadvantages of a firewall? (CO4)

Q.38 Write short note on the following:  
a) IDS (CO5)  
b) UPS (Co8)

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- Q.26 Discuss about TextView and ImageButton views. (CO6)
- Q.27 Explain TimePickerView. List any five attributes of the view. (CO6)
- Q.28 Summarize the procedure to create Menus in an android application. (CO6)
- Q.29 Explain about Dialog boxes used in development of mobile applications. (CO6)
- Q.30 Write the important steps for creating an application to send sms. (CO2)
- Q.31 Explain about the zoom control and adding marker in the location-based services. (CO6)
- Q.32 Explain about geo coding and reverse geocoding used in providing location based services. (CO6)
- Q.33 Describe the process of storing and retrieving the data from internal storage. (CO7)
- Q.34 Discuss about accessing the web services in android. (CO7)
- Q.35 Describe content provider and how it is implemented in android applications. (CO7)

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20
- Q.36 Explain SQLite in detail. How can you create and use databases in SQLite? (CO7)
- Q.37 Explain architecture of android along with its diagram. (CO4)
- Q.38 Describe the following: (CO6)
- DatePicker view
  - RadioButton view

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### Computer Engineering

#### Subject : Mobile Application Development

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

- Note:** Multiple choice questions. All questions are compulsory (10x1=10)
- Q.1 Tier-1 in mobile computing architecture is also called as: (CO2)
- Presentation tier
  - Application tier
  - Operating tier
  - All of the mentioned
- Q.2 Android is: (CO4)
- Web browser
  - Web server
  - Operating system
  - RDBMS
- Q.3 Which of the following virtual machine is used by the Android operating system? (CO5)
- Simple virtual machine
  - Java virtual machine
  - Dalvik virtual machine
  - Android virtual machine
- Q.4 To display text, which control you will use (CO6)
- Image view
  - List view
  - Phone view
  - Text view

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- Q.5 \_\_\_\_\_ means it will occupy the complete space available on the display of the device. (CO6)
- a) wrap\_content      b) match\_content  
c) wrap\_parent      d) match\_parent
- Q.6 To embed a web browser in your activity, which view is used? (CO6)
- a) EditView      b) ChromeView  
c) BrowserView      d) WebView
- Q.7 In Android, a view is also known as: (CO6)
- a) Image      b) Widget  
c) Scene      d) PcView
- Q.8 Which of the following is part of location-based services: (CO6)
- a) Views  
b) LocatorMap  
c) ViewLoc  
d) Geo coding and Reverse geo coding
- Q.9 Content provider includes: (CO7)
- a) View Contacts      b) Add Contacts  
c) Delete Contacts      d) All of the mentioned
- Q.10 Tier-2 in mobile computing architecture is also called as: (CO2)
- a) Presentation tier      b) Application tier  
c) Operating tier      d) All of the mentioned

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## SECTION-B

- Note:** Objective Completion type questions. All questions are compulsory. 10x1=10
- Q.11 WLAN stands for \_\_\_\_\_. (CO3)
- Q.12 Bluetooth is used for \_\_\_\_\_. (CO3)
- Q.13 List any two android device manufactures (CO4)
- Q.14 Give full form of AVD. (CO5)
- Q.15 Progress bar is used for \_\_\_\_\_. (CO6)
- Q.16 SMS stands for \_\_\_\_\_. (CO6)
- Q.17 Name any two attributes of AutoCompleteText view. (CO6)
- Q.18 API stands for \_\_\_\_\_. (CO6)
- Q.19 HTTP stands for \_\_\_\_\_. (CO7)
- Q.20 SQLite is a database system. (True/False) (CO7)

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5=60
- Q.21 Discuss about the evolution of mobile computing through telephony. (CO2)
- Q.22 List any five differences between wired and wireless mechanism in mobile computing. (CO1)
- Q.23 Explain any five features of android. (CO4)
- Q.24 Describe about Android Virtual Device. (CO5)
- Q.25 Explain about display orientation in Android. (CO5)

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- Q.25 Which are the various comparison operators available in a shell.
- Q.26 What is task bar? Which common elements are present in taskbar?
- Q.27 Write operating system hardware requirement for window XP.
- Q.28 What are different media used for backup?
- Q.29 Explain MKDIR command and WHO command with example
- Q.30 Explain any three process command in Linux
- Q.31 What is VI editor? Explain its functions.
- Q.32 Write short note on kernel and shell in Linux.
- Q.33 What is a shell? Explain the most common shells.
- Q.34 Explain two features of windows
- Q.35 What are the objectives of operating systems?

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20

- Q.36 How are files and folders managed in windows XP.
- Q.37 Write down the various features of Linux. Also give over view of the history of linux.
- Q.38 Explain the following:
- (i) WC Command
  - (ii) Head Command
  - (III) Chmod Command

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#### Comp, IT

#### Subject : Windows & Linux Op. Sys.

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 A Microsoft Windows is a(n)
- a) Operating System
  - b) Graphic Program
  - c) Word Processing
  - d) Database program
- Q.2 What command is used to removed files?
- a) dm
  - b) rm
  - c) delete
  - d) erase
- Q.3 Which of the following is/are linux commands?
- a) Mkdir
  - b) rmdir
  - c) wall
  - d) All of above
- Q.4 Which command is used to remove the directory.
- a) rdir
  - b) remove
  - c) rd
  - d) rmdir

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- Q.5 Which of the following is not an operating system?
- a) windows                      b) Linux  
c) Oracle                         d) DOS
- Q.6 Linux is a(n) ..... operating system
- a) Open source                 b) Microsoft  
c) windows                      d) Mac
- Q.7 Which command is used to count the total number of lines, words and characters contained in a line?
- a) countw                        b) wcount  
c) wc                                d) count p
- Q.8 In Windows, start button is used to
- a) Run applications            b) Device setting  
c) Turn off the system        d) All of above
- Q.9 What command is used to sort the lines of data in a file in alphabetical order
- a) sort -r                         b) st  
c) sh                                d) sort
- Q.10 What command is used to display the characteristics of a process?
- a) au                                b) ps  
c) du                                d) pid

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## SECTION-B

**Note:** Objective Completion type questions. All questions are compulsory. 10x1=10

- Q.11 \_\_\_\_\_ command is used to move files.
- Q.12 Linux is open source, (True/False)
- Q.13 List one line editing Command in linux
- Q.14 What is the use of floppy disk?
- Q.15 Which command is used to change file permission.
- Q.16 Linux saves command History (True/false)
- Q.17 Name the latest operating system of Microsoft.
- Q.18 Which file structure is followed in Linux?
- Q.19 \_\_\_\_\_ command is used to terminate a process.
- Q.20 Which file structure is followed by Window operating system

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions.

12x5=60

- Q.21 Differentiate between Window operating system and Linux operating system.
- Q.22 Write short note on filters in Linux.
- Q.23 Define system shell variable and user defined shell variables.
- Q.24 Define the responsibilities of system administrator

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- Q.27 What is pattern matching? List pattern matching operators.
- Q.28 Describe in brief the data types in ORACLE
- Q.29 Write significance and syntax of having clause.
- Q.30 How sequences can be created, altered and dropped.
- Q.31 Differentiate between Group functions & scalar functions
- Q.32 Different between Foreign key and Check constraints.
- Q.33 Differentiate between nested sub queries and co relate subqueries.
- Q.34 write a short note on security management using SQL.
- Q.35 Explain about char and To-char function in SQL.

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20
- Q.36 Describe about the use and types of cursors. Explain implicit cursors.
- Q.37 What do you mean by constraint? How many types of data constraints are there? Explain each of them.
- Q.38 Write a short note on the following:
- Parameterized cursors.
  - Oracle client tools.
  - Group by clause.

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### Comp, IT Subject : Oracle

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 What is full form of SQL?
- Structured Query Language
  - Structured Query List
  - Simple Query Language
  - None of the Mentioned
- Q.2 In SQL, which command (s) is (are) used to change a tables's storage characteristics?
- ALTER TABLE
  - MODIFY TABLE
  - CHANGE TABLE
  - All of the Mentioned
- Q.3 \_\_\_\_\_ clause is an additional filter is applied to the result.
- Select
  - Group-by
  - Having
  - Order by
- Q.4 What type of join is needed when you wish to return rows that do have matching values?
- Equi-join
  - Natural join
  - Outer join
  - All of the above

- Q.5 PL/SQL stands for-
- Protable Language/SQL
  - Programing Language/SQL
  - Procedural Language/SQL
  - none of these
- Q.6 Which of the following in one of the basic approaches for joining tables?
- Subqueries
  - Union Join
  - Natural join
  - All of the above
- Q.7 \_\_\_\_\_ cursors are declared and used by the user to process multiple row, returned by SELECT statement.
- Implicit
  - Explicit
  - Internal
  - Externa
- Q.8 How many tables may be included with a join?
- One
  - Two
  - Three
  - All of the above
- Q.9 Which of the following is NOT a type of SQL constraint?
- PRIMARY KEY
  - FOREIGN KEY
  - ALTERNATE KEY
  - UNIQUE
- Q.10 In SQL, which command is used to SELECT only one copy of each set of duplicable rows
- SELECT DISTINCT
  - SELECT UNIQUE
  - SELECT DIFFERENT
  - All of the Mentioned

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## SECTION-B

- Note:** Objective type questions. All questions are compulsory. 10x1 = 10
- Q.11 Define transaction.
- Q.12 State one disadvantage of a view
- Q.13 What is Truncate command used for
- Q.14 Do aggregate functions return multiple values.
- Q.15 What do you mean by Entity.
- Q.16 The use of rollback statement \_\_\_\_\_.
- Q.17 DDL stands for \_\_\_\_\_
- Q.18 Define primary key \_\_\_\_\_.
- Q.19 What is the use of Revoke command
- Q.20 List any one Oracle's suite of products that are commonly known

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5 = 60
- Q.21 Discuss the functions of DBA
- Q.22 Give the syntax of following statements:
- How to create table.
  - How to drop table
- Q.23 Define the term Oracle, its features, advantages and tools
- Q.24 Write various features of SQL
- Q.25 Differentiate between column level constraints and table level constraints
- Q.26 Explain in brief the usefulness of indexing in improving database performance

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- Q.28 Write short note on hidden surface algorithm?
- Q.29 What do you understand by output devices. Briefly explain any two of them.
- Q.30 Differentiate between Random and Raster Display?
- Q.31 Define term CAD? Explain its uses.
- Q.32 Write down steps for performing translation of object with respect to origin.
- Q.33 Explain the rotation about a pivot point
- Q.34 Write a short note on touch screen
- Q.35 Explain in brief 3-D rotation?

**SECTION-D**

- Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20
- Q.36 Explain the various devices used in the graphics system. Mention their uses also.
  - Q.37 Discuss the concept of two dimensional transformation in detail.
  - Q.38 Define the term scan conversion. Also define the scan converting the point and the straight line.

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**Com, IT**  
**Subject : Comp. Graphics**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 Graphics can be-
  - a) Simulation
  - b) Drawing
  - c) Movies, photographs
  - d) All of the above
- Q.2 CAD stands for-
  - a) Computer art design
  - b) Computer-aided design
  - c) Car art design
  - d) None of the above
- Q.3 Which one of the following is the primarily used output device?
  - a) Video monitor
  - b) Scanner
  - c) Speaker
  - d) Printer
- Q.4 Aspect Ratio can be defined as-
  - a) The ratio of the vertical points to horizontal points
  - b) of pixels
  - c) Both (a) & (b)
  - d) None of the above

- Q.5 Which is not the input device?  
 a) Impact printers      b) Trackball  
 c) Mouse                      d) Keyboard
- Q.6 RGB color model is used for-  
 a) Painting                      b) Sketching  
 c) Printing                      d) Computer display
- Q.7 Which of the following algorithm is used to fill the interior of a polygon?  
 a) Boundary fill algorithm  
 b) Scan line polygon fill algorithm  
 c) Flood fill algorithm  
 d) All of the above
- Q.8 Which one of the following terms is used for the area of the computer captured by an application?  
 a) Display                      b) Window  
 c) Viewport                      d) None of the above
- Q.9 Which of the following equation is used in 2D translation to move a point (x,y) to the new point (x',y')?  
 a)  $x' = x + tx$  and  $y' = y + ty$   
 b)  $x' = x - tx$  and  $y' = y - ty$   
 c)  $x' = x + tx$  and  $y' = y + ty$   
 d)  $x' = x + tx$  and  $y' = y - ty$
- Q.10 DDA stands for-  
 a) Direct differential analyzer  
 b) Data differential analyzer  
 c) Direct difference analyzer  
 d) Digital differential analyzer

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**SECTION-B**

**Note:** Objective type questions. All questions are compulsory. 10x1 = 10

- Q.11 CAE stands for \_\_\_\_\_
- Q.12 Mention the advantage of Cohen algorithm
- Q.13 Name any one pointing device?
- Q.14 Side effect of scan conversion is \_\_\_\_\_
- Q.15 Define a circle
- Q.16 Use of digitizer \_\_\_\_\_
- Q.17 Define the term pixel.
- Q.18 Define the term rotation.
- Q.19 Name any one display device.
- Q.20 Plotter is input device or output device?

**SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5 = 60

- Q.21 What is transformation? Why it is used.
- Q.22 Differentiate between Clockwise & Anticlockwise rotations?
- Q.23 Write a short note on Fire frame model
- Q.24 Write a short note on graphics functions and standards.
- Q.25 Write the methods for window to view port mapping of characters?
- Q.26 Distinguish between perspective and parallel transformations.
- Q.27 Write down steps required to generate a circle?

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- Q.29 Write short note on -integrity of XML with Databases
- Q.30 What is MSIL. Discuss
- Q.31 Compare features of C# and C<sup>++</sup>. How do they differ from each other
- Q.32 What do you mean by scope of a variable? Discuss
- Q.33 In what ways list box is different from combo box.
- Q.34 Define various access specifiers in VB. Net
- Q.35 Differentiate while loop and DO-While loop in C#

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20

- Q.36 Discuss in detail various data types used in C#.
- Q.37 Explain various applications of .NET.
- Q.38 What is new in VS.NET. Discuss with diagram & example

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030865B

### 6th SEM / Comp, IT Subject : Dot Net

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 CLR is the .NET equivalent of \_\_\_\_\_.
- Java Virtual Machine
  - Common Language Runtime
  - Common Type System
  - Common Language Specification
- Q.2 C# has \_\_\_\_\_ operator, useful for making two way decisions.
- Looping
  - Functional
  - Exponential
  - Conditional
- Q.3 An \_\_\_\_\_ is a symbol that the computer to perform certain mathematical or logical manipulations.
- Operator
  - Expression
  - Condition
  - Logic
- Q.4 A \_\_\_\_\_ is an identifier that denotes a storage location.
- Constant
  - Reference type
  - Variable
  - Object

- Q.5 A \_\_\_\_\_ block enclose the code that could throw an exception.
- a) Try                                      b) Catch  
c) Exception                                d) Error
- Q.6 The \_\_\_\_\_ are the Graphical User Interface (GUI) components created for web based interactions.
- a) Web forms                                b) Window Forms  
c) Application forms                      d) None of the above
- Q.7 A \_\_\_\_\_ creates an object by copying variables from another object.
- a) Copy constructor                        b) Default constructor  
c) Invoking constructor  
d) Calling constructor
- Q.8 A variable which is declared inside a method is called a \_\_\_\_\_ variable
- a) Local                                        b) Private  
c) Static                                        d) Serial
- Q.9 Two methods with the same name but with different parameters.
- a) Overloading                                b) Multiplexing  
c) Duplexing                                 d) Loading
- Q.10 Arrays in C# are \_\_\_\_\_ objects
- a) Reference                                 b) Logical  
c) Value                                        d) Arithmetic

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## SECTION-B

- Note:** Objective type questions. All questions are compulsory. 10x1 = 10
- Q.11 Define the term variable.
- Q.12 Define Unboxing
- Q.13 Write down one use of XML
- Q.14 Write full form of IDE
- Q.15 MSIL stands for \_\_\_\_\_
- Q.16 What do you mean by property window
- Q.17 Use of Metadata \_\_\_\_\_
- Q.18 Write any one. Net products
- Q.19 Can a try block have nested try blocks
- Q.20 List any one language supported by. NET

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5 = 60
- Q.21 What is new in VB .NET which makes it different from other languages
- Q.22 Draw a structural diagram of .NET framework
- Q.23 Write down features of C#
- Q.24 Write how add control to you VB .NET form
- Q.25 Differentiate between HTML and XML
- Q.26 List the control statements available in C#. net
- Q.27 Explain some important applications of XML
- Q.28 Discuss Advantages and Disadvantages of .Net

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- Q.5 MDI stands for:
- Many Document Interface
  - Multiple Data interface
  - Many Data Interface
  - Multiple Document Interface
- Q.6 Which operator is used for dynamic allocation of an object from free storage in C++
- this
  - static
  - new
  - delete
- Q.7 MFC stands for:
- Microsoft File Class
  - Microsoft Foundation Class
  - Microsoft Form Class
  - None of these
- Q.8 The components of Visual C++ includes:
- Tools
  - Resource Editors
  - Active X Template Library
  - All of these
- Q.9 DLL stands for:
- Dynamic Level Library
  - Direct Link Library
  - Dynamic Layout Library
  - Dynamic Link Library

- Q.10 What is meant by multiple inheritance?
- Deriving a based class from derived class
  - Deriving a derived class from base class
  - Deriving a derived class from more than one base class
  - None of the mentioned

### SECTION-B

**Note:** Objective type questions. All questions are compulsory.  $10 \times 1 = 10$

- Q.11 What do you mean by the term encapsulation
- Q.12 Write one use of Dialog Box
- Q.13 Why tool bar is used in a window
- Q.14 What are active-x controls in VC++?
- Q.15 What is the use of templates
- Q.16 Write one advantage of MFC library
- Q.17 Name any one operators that can not be overloaded
- Q.18 Whether Visual C++ is a case sensitive language
- Q.19 What is a constructor
- Q.20 What is a Edit Box

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions.  $12 \times 5 = 60$

- Q.21 Discuss Operator Overloading with example
- Q.22 Explain the creation of an object in VC++
- Q.23 What is a destructor? Explain with the help of an example
- Q.24 Explain in brief Runtime library of VC++.

- Q.26 Write short note on array of characters.
- Q.27 What do you understand by call by value and cell by reference.
- Q.28 Discuss the concept of nesting of loop with an example.
- Q.29 What is pointer ? How is it declared.
- Q.30 Briefly explain the various modes in which file can be opened.
- Q.31 Write any 3 advantages of flowcharts and 2 limitations of flowcharts.
- Q.32 What is the use of return statement and break statement.
- Q.33 Write short note on string handling functions.
- Q.34 Define a function and also write down any 4 advantages of functions.
- Q.35 Describe switch statements. What is the difference between switch and if statement ?

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 How function declaration differs from function definition? Write a C program to show function calling by passing a value.
- Q.37 What is operator? Explain different operators used in 'C'.
- Q.38 What are unions? How is it declared. How is it different from structure ?

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### 2nd Sem. / Computer Subject : Programming In C

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Compiler generates \_\_\_\_\_ file.
- a) Executable Code    b) Object Code  
c) Assembly Code    d) None of the Above
- Q.2 C program is a combination of. ?
- a) Statements            b) Functions  
c) Variables            d) All of the above
- Q.3 Number of keywords present in C Language are.?
- a) 32                            b) 34  
c) 62                            d) 64
- Q.4 Loops in C Language are implemented using. ?
- a) While Block            b) For Block  
c) Do while Block        d) All the above

- Q.5 An array Index starts with.?
- a) -1                                      b) 0  
c) 1    d) 2
- Q.6 What is the other name for C Language ?:  
Question Mark colon Operation.?
- a) Comparison Operator    b) If-Else Operator  
c) Binary Operator                      d) Ternary Operator
- Q.7 Operator % in C Language is called.?
- a) Percentage Operator  
b) Quotient Operator  
c) Modulus                                      d) Division
- Q.8 Type of Integers are.?
- a) Short    b) int  
c) Long    d) All the above
- Q.9 Who invented C Language.?
- a) Charles Babbage    b) Grahambel  
c) Dennis Ritchie      d) Steve Jobs
- Q.10 Each statement in a C program should end with.?
- a) Semicolon ;                      b) Colon :  
c) Period                                      d) None of the above

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## SECTION-B

- Note:** Objective Completion type questions. All questions are compulsory. (10x1=10)
- Q.11 Write any one data type in C.
- Q.12 Mention one logical operator.
- Q.13 A pointer that is pointing to nothing is called \_\_\_\_
- Q.14 Each statement in a C program should end with.?
- Q.15 An array elements are always stored in \_\_\_\_ memory locations (Sequential/random)
- Q.16 Mention name of any one loops of C language.
- Q.17 Default parament, passing mechanism is \_\_\_\_.
- Q.18 In switch statement, two cases can have the same option. (True/False)
- Q.19 An array is a collection of variables that are of same data type (True/False)
- Q.20 The process of removing bugs is known as \_\_\_\_.

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Write down any 2 characteristics of array and what do you mean by base address of array.
- Q.22 Describe in brief the general structure of 'C' program.
- Q.23 Write a short note on while loop with syntax?
- Q.24 Write down the steps in developement of program.
- Q.25 Write a program in C to find biggest of three numbers?

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- Q.28 How Dot Matrix Printer works
- Q.29 Differentiate between low level formatting and high level formatting.
- Q.30 Differentiate between serial port and parallel port
- Q.31 What are the main functions of motherboard.
- Q.32 Explain UPS and its types.
- Q.33 Define : a) pixel b) resolution c) Bandwidth
- Q.34 What do you understand by the following terms:  
a) Track b) MBR c) FAT
- Q.35 Differentiate between device dependent and device independent software

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions.  $2 \times 10 = 20$
- Q.36 What are the various types of mouse? Explain the working operation of optical mouse.
- Q.37 Explain the working operation of Inkjet Printer in detail
- Q.38 Explain the construction and working of a joystick.

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### 3rd SEM / Computer Subject : Computer peripheral & Interfacing

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 Which among the following is best suited for a smooth line drawing on the screen ?  
a) Random Scan Display Algorithm  
b) Raster Scan Display Algorithm  
c) Both A and B d) None of the above
- Q.2 The basic input/output system (BIOS) is stored in :  
a) RAM b) ROM  
c) The CPU d) The hard drive
- Q.3 Which of the following is defined by the number of pixels present in the frame buffer ?  
a) Resolution b) Depth  
c) Both A and B d) None of the above
- Q.4 Aspect Ratio can be defined as -  
a) The ratio of the vertical points of horizontal points  
b) of pixels  
c) Both A and B d) None of the above

- Q.5 What is motherboard ?
- Scanner and other things are part of motherboard
  - Keyboard otherwise known as motherboard
  - A circuit board which connects all the elements
  - It is a type of file server
- Q.6 Which of the following is not an example of hardware?
- Scanner
  - Printer
  - Monitor
  - Interpreter
- Q.7 Devices that allow you to put information into the computer.
- Input
  - Output
  - Type
  - Print
- Q.8 The term used to define all input and output devices in a computer system is \_\_\_\_\_
- Monitor
  - Software
  - Shared resources
  - Hardware
- Q.9 The \_\_\_\_\_ pen is a small input device used to select and display objects on a screen.
- Ink
  - Magnetic
  - Light
  - None of the above
- Q.10 What are Random scan and Raster scan techniques?
- Techniques to display an image on the screen
  - Line Drawing Techniques
  - Polygon Drawing Techniques
  - None of the above

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**SECTION-B**

**Note:** Objective type questions. All questions are compulsory. 10x1 = 10

- Q.11 ROM stands for \_\_\_\_\_
- Q.12 Full form of USB \_\_\_\_\_
- Q.13 Full form of BIOS \_\_\_\_\_
- Q.14 Define RS-232
- Q.15 CRT stands for \_\_\_\_\_
- Q.16 Two Types of ports are \_\_\_\_\_ and \_\_\_\_\_
- Q.17 What is video bandwidth
- Q.18 Define SATA
- Q.19 What do you mean by CVT
- Q.20 Define the secondary storage

**SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5 = 60

- Q.21 Difference between impact printers and non-impact printers
- Q.22 Difference between SIMM and DIMM.
- Q.23 Explain the working of keyboard.
- Q.24 Write a short note on software aspects of peripheral devices.
- Q.25 How information is retrieved from Floppy Disk
- Q.26 How information is stored on Hard Disk
- Q.27 What are the relative advantages of Raster scan and random scan.

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- Q.24 Give the steps for creating a HTML document
- Q.25 Differentiate between search engine and proxy server
- Q.26 Explain how DNS works
- Q.27 Write a short note on USENET and FTP
- Q.28 List the functions performed by the Modern
- Q.29 Explain the front page editor
- Q.30 Write a short note on video conferencing
- Q.31 Differentiate between TCP protocol and HTTP protocol
- Q.32 Write down the features of netscape navigator
- Q.33 Differentiate between flash and Giff
- Q.34 What are frames. Discuss
- Q.35 Briefly explain the structure of a HTML page.

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20
- Q.36 Write short note on dial up connection and broadband. Also discuss their hardware and software requirements and their relative advantages
- Q.37 Write a short note on the concept of internet and its evolution. Also discuss the various uses of internet in fields of science and technology
- Q.38 Explain the concept of IP address. Briefly describe the types of IP address. Also explain the various classes of IP address.

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120834/30854

### 3rd SEM / Computer Subject : Internet & web Designing

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 The tags in HTML are -
- a) case-sensitive      b) in upper case  
c) not case sensitive      d) in lowercase
- Q.2 Which of the following is the root tag of the HTML document?
- a) <body>      b) <head>  
c) <title>      d) <html>
- Q.3 Servers are computers that provide resources to other computers connected to a
- a) Client      b) Mainframe  
c) Supercomputer      d) Network
- Q.4 The size of an IP address in Ipv6 is \_\_\_\_\_
- a) 32 bits      b) 64 bits  
c) 128 bits      d) 265 bits

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- Q.5 URL stands for
- Unique reference label
  - Uniform reference label
  - Uniform resource locator
  - Unique resource locator
- Q.6 HTML tags are enclosed in -
- # and #
  - { and }
  - ! and ?
  - < and >
- Q.7 How to create an unordered list ( a list with the list items in bullets ) in HTML?
- <ul>
  - <ol>
  - <li>
  - <i>
- Q.8 Which of the following is an example of Web Browser?
- Yahoo
  - Google
  - Mozilla Firefox
  - Gmail
- Q.9 The correct sequence of HTML tags for starting a webpage is-
- Head, Title, HTML, Body
  - HTML, Body, Title, Head
  - HTML, Head, Title, Body
  - HTML, Head, Title, Body

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- Q.10 ISP stands for
- International Server Protocol
  - Internal Storage Protocol
  - Internet Service Provider
  - Internet Storage Provider

### SECTION-B

**Note:** Objective type questions. All questions are compulsory. 10x1 = 10

- Q.11 HTTP stands for \_\_\_\_\_.
- Q.12 List selection tools in flash.
- Q.13 WWW stands for \_\_\_\_\_.
- Q.14 Define the term client.
- Q.15 Name any one e-commerce websites.
- Q.16 Differentiate between Intranet and extranet.
- Q.17 Write down the disadvantage of dial up connection.
- Q.18 Write down the function of FTP
- Q.19 What are search engines used for
- Q.20 Write the use of modem

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5 = 60

- Q.21 What are lists. Differentiate between ordered and unordered list
- Q.22 Discuss about WWW and its evolution
- Q.23 Write short note on E-commerce

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120841/30841

**Comp., IT**

**Subject : O.O.P using C++**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Which of the following features must be supported by any programming language to become a pure object-oriented programming language?
- a) Encapsulation      b) Inheritance  
c) Polymorphism      d) All of the above
- Q.2 The programming language that has the ability to create new data type is called\_\_\_\_\_.
- a) Overloaded      b) Encapsulated  
c) Reprehensible      d) Extensible
- Q.3 Which of the following is the original creator of the C++ language?
- a) Dennis Ritchie      b) Ken Thomson  
c) Bjarne Stroustrup      d) Brian kernighan
- Q.4 Which of the following statements is correct about the formal parameters in C++?
- a) Parameters with which functions are called  
b) Parameters which are used in the definition of the function

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c) Variables other than passed parameters in a function

d) Variables that are never used in the function

Q.5 Which of the following comment syntax is correct to create a single-line comment in the C++program?

a) //Comment

b) /comment/

c) Comment//

d) None of the above

Q.6 Can a for loop contain another for loop?

a) No

b) Yes

c) Compilation Error      d) Runtime Error

Q.7 Which operator has highest precedence?

a) ()

b) =

c) \*

d) ++

Q.8 Exceptions are caught at?

a) Compilation Time      b) Run time

c) Linking Time      d) No

Q.9 A C++ code line ends with\_\_\_\_\_

a) Semicolon (;)

b) Fullstop (.)

c) Comma (,)

d) Slash (/)

Q.10 A class whose objects can not be created is known as\_\_\_\_\_

a) Absurd Class

b) Dead Class

c) Super Class

d) Abstract Class

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## SECTION-B

**Note:** Objective Completion type questions. All questions are compulsory. (10x1=10)

- Q.11 Define a class.
- Q.12 Name one operator that cannot be overloaded.
- Q.13 What is the return type of main ()
- Q.14 When a constructor is called?
- Q.15 Use of new operator \_\_\_\_\_.
- Q.16 Full form of OOPS \_\_\_\_\_.
- Q.17 What is the use of destructor.
- Q.18 Name one logical operator.
- Q.19 Name one arithmetic operator.
- Q.20 Write down the use of this pointer.

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Differentiate between do while and while loop.
- Q.22 Discuss about the general form of a class declaration with example.
- Q.23 Differentiate between union and structures.
- Q.24 What is polymorphism? What is the difference between run time and compile time polymorphism.
- Q.25 Differentiate between private and public members with an example.
- Q.26 Explain the components of file.
- Q.27 What are the different methods of calling a function.

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- Q.28 What are inline functions. What are the advantages.
- Q.29 What is friend function and write its characteristics.
- Q.30 Write short note dynamic memory allocation.
- Q.31 Explain the following:-
  - a) file streams in C++
  - b) Static data members
- Q.32 Differentiate between constructor and destructor.
- Q.33 Write short note on:-
  - a) Abstract base classes
  - b) pure virtual functions
- Q.34 Differentiate between pass by value and pass by reference.
- Q.35 Write a short note on opening a file with open () member function.

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain in detail the differences between procedural and object oriented programming.
- Q.37 Write notes on following:
  - i) Arrays
  - ii) Unions
  - iii) Virtual Functions
- Q.38 What is the need of operator overloading? Overload any relational operator using operator overloading function.

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- Q.31 What is control array? How it can be created?  
(CO3)
- Q.32 Explain how data is displayed using grids?  
(CO5)
- Q.33 Explain how are Reports generated using Sql?  
(CO5)
- Q.34 Explain how would you encapsulate database operation?  
(CO6)
- Q.35 Explain (CO3)
- command button
  - check box
  - Timer control
  - Picture box

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain the concept of IDE of VB with its features and applications?  
(CO1)
- Q.37 What are Menus? How single and Multilevel menus are created? Explain with example?  
(CO4)
- Q.38 Explain various Data types available in VB?  
(CO2)

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120852A/030852

### 5th Sem./ Computer /IT Subject : Visual Basic

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

- Note:** Multiple choice questions. All questions are compulsory (10x1=10)
- Q.1 Visual Basic is extension of which language:  
(CO1)
- COBOL
  - BASIC
  - PASCAL
  - C++
- Q.2 Make project group command is there on:(CO7)
- File menu
  - edit menu
  - Project menu
  - query menu
- Q.3 Select all command is there on: (CO1)
- File menu
  - edit menu
  - Project menu
  - query menu
- Q.4 align command is there on (CO2)
- File menu
  - format menu
  - Project menu
  - query menu
- Q.5 Quick watch command is there on (CO4)
- Debug menu
  - edit menu
  - project menu
  - none

- Q.6 Variables are used for information to be: (CO2)  
 a) stored                      b) moved  
 c) created                      d) none
- Q.7 In modular programming you divide program into: (CO6)  
 a) modules                      b) don't divide  
 c) all                              d) none
- Q.8 Values of constant in program : (CO3)  
 a) Changes                      b) remain same  
 c) alters                         d) zero
- Q.9 A variable is defined using: (CO3)  
 a) Dim                            b) Define  
 c) Light                         d) Dark
- Q.10 For branching and decision, the structures used is: (CO2)  
 a) Do/Loop                      b) For/Next  
 c) If/Then//Else/Endif d) none

### SECTION-B

- Note:** Objective Completion type questions. All questions are compulsory. (10x1=10)
- Q.11 Modular programming means dividing the program into various objects(T/F) (CO6)
- Q.12 Delete command is there on file menu.(T/F) (CO2)
- Q.13 Watch window command are there on view menu. (T/F) (CO2)

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- Q.14 Align is a part of debug menu. (T/F) (CO2)
- Q.15 Add Data Environment is part of Project menu. (T/F) (CO6)
- Q.16 Checkbox is part of VB toolbox. (T/F) (CO3)
- Q.17 Dynamic arrays are not initialized. (T/F) (CO3)
- Q.18 Values of constant changes. (T/F) (CO2)
- Q.19 The command button control is used to begin, interrupt or end a process. (T/F) (CO1)
- Q.20 You cannot create multiple menu. (T/F) (CO4)

### SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 What is Modular programming? (CO6)
- Q.22 What is event driven Programming? (CO1)
- Q.23 What are menus? (CO4)
- Q.24 Describe the various advantage of using Visual Programming? (CO1)
- Q.25 What is DAO? How it is used to assign and open data base? (CO6)
- Q.26 Describe naming convention of visual basic variables? (CO2)
- Q.27 Define Image List control? (CO3)
- Q.28 What do you by function? (CO2)
- Q.29 Differentiate ActiveX DLL and ActiveX EXE? (CO7)
- Q.30 Differentiate between While and Do while Loop statements with example? (CO2)

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**5th Sem./ Comp**  
**Subject : RDBMS**

Time : 3 Hrs.

M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 A Database Management System is a type of \_\_\_\_\_ software.
- a) It is a type of system software
  - b) It is a kind of application software
  - c) It is a kind of general software
  - d) Both A and C
- Q.2 A RDBMS consists a collection of?
- a) Tables
  - b) Fields
  - c) Records
  - d) Keys
- Q.3 The term attribute refers to a \_\_\_\_\_ of a table.
- a) Record
  - b) Tuple
  - c) Column
  - d) Key
- Q.4 Which of the following is DML commands?
- a) Insert
  - b) Update
  - c) Delete
  - d) All of the above
- Q.5 Advantage of SQL stored procedure
- a) Maintainability
  - b) Re-use of code
  - c) Security
  - d) All

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Q.6 In the \_\_\_\_\_ normal form, a composite attribute is converted to individual attributes

- a) First
- b) Second
- c) Third
- d) Fourth

Q.7 Which command is used to create table?

- a) Select
- b) Create
- c) Open
- d) New

Q.8 A functional dependency is a relationship between or among

- a) Entities
- b) Rows
- c) Attributes
- d) Tables

Q.9 The \_\_\_\_\_ operation allows the combining of two relations by merging pairs of tuples, one from each relation, into a single tuple.

- a) Select
- b) Intersection
- c) Union
- d) Join

Q.10 Which of the following clause return records in ascending order?

- a) Order By
- b) Where
- c) Order Asc
- d) Order Inc

**SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

Q.11 SQL stands for \_\_\_\_\_.

Q.12 Define local variable.

Q.13 Write down the full form of BCNF.

(2)

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- Q.14 DDL stands for \_\_\_\_\_.
- Q.15 Command used to select unique records from the table \_\_\_\_\_.
- Q.16 Name one relational operators used in SQL queries.
- Q.17 Which command is used to modify a record in table.
- Q.18 The number of attributes in a relational table refer to its \_\_\_\_\_.
- Q.19 Command used to delete a database \_\_\_\_\_.
- Q.20 Name one logical operator used in SQL.

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What are the various data type in SQL. Explain.
- Q.22 Differentiate between WHERE and HAVING clause with example.
- Q.23 Differentiate between First Normal Form and Second Normal Form.
- Q.24 Write a short note on user defined functions.
- Q.25 Differentiate between SQL commands DROP TABLE and DROP VIEW
- Q.26 Define the following functions:-
- Min
  - Count
  - Avg.

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- Q.27 Write down the advantages of stored procedures.
- Q.28 Discuss the entity integrity and referential integrity constraints. Why is each considered important.
- Q.29 Differentiate between procedural and non-procedural DML
- Q.30 Write the advantages and disadvantages of views.
- Q.31 Write a short note on database security.
- Q.32 How do we create and use a trigger
- Q.33 Explain in brief the Data Control Statements in SQL.
- Q.34 Write a short note on correlated sub queries.
- Q.35 Write a short note on try and Catch statements.

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Define a trigger. Explain various types of triggers with suitable examples.
- Q.37 Write short note on :-
- Trivial and non-trivial dependencies.
  - Need of normalization
- Q.38 Write short note on the following :-
- Order by clause.
  - Boyce codd normal form
  - Domain calculus

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- Q.27 How security can be improved in IT business using cloud computing. (CO1)
- Q.28 Enlist & explain various technologies in distributed computing. (CO3)
- Q.29 What are virtual organisations? Write some of their applications. (CO4)
- Q.30 Briefly explain various organisations? Write some of their applications. (CO3)
- Q.31 Differentiate between ubiquitous computing & cluster computing. (CO4)
- Q.32 What is hyper visor. Explain its types. (CO1)
- Q.33 What are various service models. Explain (CO2)
- Q.34 Write notes on (CO4)
- a) Software Vitalisation
- b) Hybrid cloud.
- Q.35 What is community cloud? What are its applications? (CO4)

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20
- Q.36 Explain various deployment models with the help of diagram. (CO2)
- Q.37 Enlist and explain various technologies in distributed computing. (CO1)
- Q.38 Write a note on (CO2,3,4)
- a) Service Models
- b) Utility Computing
- c) Hardware Virtualisation

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### 6th SEM / Computer Engineering Subject : Distributed Computing

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

- Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)
- Q.1 Which among the following is not an advantage of Distributed Systems? (CO1)
- a) Resources Sharing b) Incremental Growth  
c) Reliability d) None of the above
- Q.2 If one site fails in distributed systems (CO1)
- a) The remaining sites can continue operating  
b) All the sites will stop working  
c) Directly connected sites will stop working  
d) None of the above
- Q.3 laas stands for (CO2)
- a) Information as a service  
b) Information as software  
c) Infrastructure as a service  
d) None of the mentioned
- Q.4 CRM stands for (CO4)
- a) Consumer Retail Management  
b) Customer Retail Management  
c) Consumer Relationship Management  
d) Customer Relationship Management

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- Q.5 A global system of interconnected computer networks is known as (CO1)  
 a) Ethernet                      b) Intranet  
 c) Internet                        d) Ultra-net
- Q.6 PaaS stands for (CO1)  
 a) Platform as a service  
 b) Program as a software  
 c) Port as a service  
 d) None of the mentioned
- Q.7 Internet provides \_\_\_\_\_ for remote login. (CO2)  
 a) telnet                            b) http  
 c) ftp                                d) RPC
- Q.8 API stands for (CO2)  
 a) Application Project Interface  
 b) Application Programming Interface  
 c) Application Port Interface  
 d) None of the mentioned
- Q.9 In a distributed system, line site failure is detected by \_\_\_\_\_ (CO3)  
 a) polling                            b) handshaking  
 c) token passing  
 d) none of the mentioned
- Q.10 SaaS stands for (CO2)  
 a) Software as a service  
 b) Software as a scale  
 c) Sorting as a service  
 d) None of the mentioned

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## SECTION-B

- Note:** Objective type questions. All questions are compulsory. 10x1=10
- Q.11 Give one advantage of cloud computing. (CO4)
- Q.12 Define cluster computing. (CO3)
- Q.13 Two types of hypervisor are \_\_\_\_\_ and \_\_\_\_\_. (CO4)
- Q.14 Mixture of public and private cloud is called \_\_\_\_\_. (CO2)
- Q.15 SaaS stands for \_\_\_\_\_. (CO3)
- Q.16 List one characteristic of cloud computing. (CO4)
- Q.17 Which service model is used for infrastructure? (CO1)
- Q.18 Define grid computing. (CO1)
- Q.19 What is a community cloud? (CO2)
- Q.20 Define distributed computing. (CO1)

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5=60
- Q.21 Differentiate between public and private clouds. (CO4)
- Q.22 List various advantages of Grid computing. (CO3)
- Q.23 Which deployment model can be used to provide high reliability? Explain. (CO2)
- Q.24 Define cloud computing. What are its various applications? (CO4)
- Q.25 Define PaaS model in detail. (CO2)
- Q.26 Explain virtualization in detail & its type. (CO4)

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- Q.33 Why interfaces are used in Java?  
Q.34 What are the basic concepts of Object Oriented Programming?  
Q.35 Write a program in Java to print table of a number?

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. 2x10=20

- Q.36 What is an exception and how exceptions are handled in Java?  
Q.37 Write short notes on a) Polymorphism  
b) Multithreading in Java  
Q.38 What are various operators of Java, explain with suitable examples

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#### 6th SEM / Com. IT Subject : Programming in Java

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1 = 10)

- Q.1 Expand JDK?  
a) Java data kit                      b) Java development kit  
c) Java deployment kit              d) None of the above
- Q.2 Which keyword is used to use a package in a Java Program  
a) Create                                      b) Import  
c) New    d) Package
- Q.3 Which of the following is Logical AND operator of Java  
a) &&    b) &  
c) And    d) @
- Q.4 Which statement is used to exit from a loop abnormally  
a) Break    b) if  
c) continue    d) exit loop
- Q.5 Which of these keywords is used to declare a class in Java?  
a) class    b) struct  
c) int    d) none of the above

