Program: Computer Engineering
Curriculum Scheme: Rev2016
Examination: TE Semester V
Course Code: CSC501_and Course Name: Microprocessor

Time: 2 hour   Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	8086 one by one fetch instructions from
Option A:	Data segment
Option B:	Code segment
Option C:	Extra segment
Option D:	Stack segment
2.	In 8088 size of pre fetch queue is
Option A:	6 byte
Option B:	4 byte
Option C:	4 bit
Option D:	2 byte
3.	In 8086 pre fetch queue works on _____ principal
Option A:	FIFO
Option B:	FILO
Option C:	LIFO
Option D:	LILO
4.	If microprocessor has 10-bits address bus, then it can generate _____addresses.
Option A:	32767
Option B:	25652
Option C:	65536
Option D:	1024
5.	Instruction Pointer forms pair with _____ segment.
Option A:	Data segment
Option B:	Code segment
Option C:	Extra segment
Option D:	Stack segment
6.	After RESET is given to 8086 the content of CS is
Option A:	FFFF0
Option B:	0000
Option C:	FFFF
Option D:	0FFFF
7.	In 8086, 1 MB of memory is divided into 4 segments each of size
Option A:	1 Kb

Option B:	16 Kb
Option C:	32 Kb
Option D:	64 Kb
8.	If segment address = FF00 H, offset address = 00FF H, then the physical address is _____
Option A:	FFFF0
Option B:	0FFFF
Option C:	FF0FF
Option D:	FFFFF
9.	MOV AH,20 after execution of given instruction content of AH will be
Option A:	AH = 20
Option B:	AH = 02
Option C:	AH = 14
Option D:	AH = 00
10.	If the size of the segment is 32 kb, what will be the starting and ending offset addresses of it
Option A:	0000 H to 7FFF H
Option B:	0000 H to FFFF H
Option C:	FFF0 H to FFFF H
Option D:	00000 H to FFFFF H
11.	MOV AX, FFFFH will affect
Option A:	All flags
Option B:	No flags
Option C:	CY and AC flags
Option D:	Zero flag
12.	Which of the following instruction is not valid
Option A:	MOV AX,1000H
Option B:	MOV AH, BL
Option C:	MOV DS, 0100H
Option D:	MOV [SI], AX
13.	An instruction MOV AH,0FFH belongs to
Option A:	Register addressing mode
Option B:	Immediate addressing mode
Option C:	Based indexed addressing mode
Option D:	Direct addressing mode
14.	Macro takes _____ time than procedure.
Option A:	More
Option B:	Less
Option C:	Equal
Option D:	Pre determined fix
15.	The instruction that pushes the contents of the specified register/memory location on to the stack is

Option A:	PUSHF
Option B:	POPF
Option C:	PUSH
Option D:	POP
16.	It performs logical AND but the result is not stored anywhere
Option A:	AND
Option B:	TEST
Option C:	XOR
Option D:	MUL
17.	In a cascaded mode, the number of vectored interrupts provided by 8259A is
Option A:	2
Option B:	8
Option C:	16
Option D:	64
18.	The INTR signal can be masked by resetting the
Option A:	T flag
Option B:	D flag
Option C:	I flag
Option D:	Z flag
19.	INT 32 will jump to _____ location in IVT
Option A:	128 H
Option B:	020 H
Option C:	080 H
Option D:	032 H
20.	8086 supports _____ s/w Interrupts
Option A:	2
Option B:	64K
Option C:	256
Option D:	8

Q.2

A.   Solve any Two   5 marks each

    i.   Explain memory segmentation
    ii.   Define addressing mode and explain implicit, direct, indirect and indexed addressing mode with example.
    iii.   Compare macro and procedure.

B.   Solve any one   10 marks each

    i.   Interface 32K byte of RAM memory to 8086 with starting address 20000 H, Use IC 6264. Use full decoding give memory map and circuit diagram.

    ii.   With neat diagram explain architecture of Pentium processor.

Q.3

A.   Solve any Two   5 marks each

    i.   Explain with neat diagram flag register of 80386.
    ii.   Give timing diagram of memory read operation
    iii.   What is assembler directives? Describe with example different assembler directive..

B.   Solve any one   10 marks each

    i.   Design a system where there is one 8259 working as master and two slave connected to IR3 and IR6 pin of master, draw neat diagram.

    ii.   Describe I/O mode and BSR mode of 8255.

University of Mumbai

Sample Question Paper for Examinations Commencing from 7th January 2021 to 20th January 2021

Program: Computer Engineering
Curriculum Scheme: Rev2016
Examination: TE Semester V
Course Code: CSC502 and Course Name: Database Management System

Time: 2 hour　　　　　　　　　　　　　　　　　　　　　　　　Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Architecture of the database can be viewed as
Option A:	Two levels.
Option B:	Four levels.
Option C:	Three levels.
Option D:	One level.
2.	The information about data in a database is called _____.
Option A:	Metadata.
Option B:	Hyper data.
Option C:	Teradata.
Option D:	None of these.
3.	In an E-R diagram ellipse is used to represent_____.
Option A:	Attribute.
Option B:	Entity.
Option C:	Relationship.
Option D:	None of these.
4.	Relationships among relationships can be represented in an-E-R model using
Option A:	Aggregation
Option B:	Association
Option C:	Weak entity sets
Option D:	Weak relationship sets
5.	'AS' clause is used in SQL for
Option A:	Selection operation.
Option B:	Rename operation.
Option C:	Join operation.
Option D:	Projection operation.
6.	A person has a PAN card. This relationship is
Option A:	One to One
Option B:	One to many
Option C:	Many to many
Option D:	Many to one
7.	The alter statement in SQL is used _____
Option A:	To change the definition of a table

Option B:	To update the records in a table
Option C:	To delete the records in a table
Option D:	To select the records in a table.
8.	If two relations R and S are joined, then the non-matching tuples of both R and S are ignored in
Option A:	left outer join
Option B:	right outer join
Option C:	full outer join
Option D:	inner join
9.	Which of the following is a DDL command in SQL
Option A:	DROP
Option B:	INSERT
Option C:	UPDATE
Option D:	DELETE
10.	The clause in SQL that specifies that the query result should be sorted in ascending or descending order based on the values of one or more columns is
Option A:	View
Option B:	Order by
Option C:	Group by
Option D:	Having
11.	A relation is in _____ if an attribute of a composite key is dependent on an attribute of other composite key.
Option A:	2NF
Option B:	3NF
Option C:	BCNF
Option D:	1NF
12.	In 2NF
Option A:	No functional dependencies (FDs) exist.
Option B:	No multivalued dependencies (MVDs) exist.
Option C:	No partial FDs exist.
Option D:	No partial MVDs exist.
13.	The FD $A \rightarrow B$, $DB \rightarrow C$ implies
Option A:	$DA \rightarrow C$
Option B:	$A \rightarrow C$
Option C:	$B \rightarrow A$
Option D:	$DB \rightarrow A$
14.	Relations produced from an E-R model will always be
Option A:	First normal form.
Option B:	Second normal form.
Option C:	Third normal form.
Option D:	Fourth normal form.
15.	What does C stands for in transaction ACID properties?

Option A:	Correctness
Option B:	Consistency
Option C:	Committed
Option D:	Completeness
16.	The default level of consistency in SQL is
Option A:	repeatable read
Option B:	read committed
Option C:	read uncommitted
Option D:	Serializable
17.	Shadow paging has
Option A:	no redo
Option B:	no undo
Option C:	redo but no undo
Option D:	neither redo nor undo
18.	Which of the following concurrency control schemes is not based on the serializability property?
Option A:	Two – phase locking
Option B:	Graph-based locking
Option C:	Time-stamp based locking
Option D:	None of these.
19.	Once the transaction executes its final operation, it enters into _____ state.
Option A:	Committed
Option B:	Terminated
Option C:	Partially Committed
Option D:	Failed
20.	Which type of users query and update the database by invoking some already written application programs?
Option A:	Sophisticated users
Option B:	Naïve users
Option C:	Special users
Option D:	System analysts

Option 1

Q2.	Solve any Four out of Six	5 marks each
A	What is an attribute? What are the different types of attribute? How they are represented in E-R diagram?	
B	Write Short note on Shadow Paging	
C	What do you mean by deadlock? What are the different techniques for deadlock detection and prevention?	
D	What is transaction? Discuss ACID properties of a transaction. Explain usefulness of each.	
E	What are triggers? Give an example. Illustrate the cases when triggers must not be used.	
F	Explain any five relational algebra operators with example.	

Option 2

Q3.	Solve any Two Questions out of Three 10 marks each
A	Define Normalization? What is the importance of normalization in database design? Explain 1NF, 2NF, 3NF, BCNF and 4NF with example.

B	Galleries keep information about artists, their names (which are unique), birthplace, age and style of art. For each piece of artwork the artist the year it was made, its unique title, its type of art (eg. Painting, sculpture, photographs) and its price must be stored. Pieces of artwork are also classified into groups of various kinds e.g. portraits, still life work by Picasso or works of 19th century; a given piece of work may belong to more than one group.
	
	Each group is identified by a name (like those given) that describes the group. Galleries keep into about customers like persons (unique name, address, total amount spent and the artist and group of all the customers like.)
	    i) Draw ER diagram for the database.
	    ii) Convert the ER diagram into equivalent relational schema

C	For the following given database, write SQL queries
	    Person (driver-id, name, address)
	    Car (license, model, year)
	    Accident (report-no, date, location)
	    Owns (driver-id, license)
	    Participated (driver-id, car, report_number, damage-amount)
	    (i) Find the number of people who owned cars that were involved in an accident in 2007.
	    (ii) Find the number of accidents in which the cars belonging to 'Ajay' were involved.
	    (iii) Update the damage amount for car with license number 'Mum2022' in the accident with report number 'AR2197' to Rs. 5000.
	    (iv) Create relations person, owns in SQL.
	    (v) Find the person whose name starts with 'S' and arrange in decreasing order of diver-id.

University of Mumbai

Program: Computer Engineering
Curriculum Scheme: Rev2016
Examination: TESemester V
Course Code: ___CSC503__and Course Name: _Computer Network___

Time: 2 hour   Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	HTTP is _____ protocol.
Option A:	physical layer
Option B:	application layer
Option C:	data link layer
Option D:	transport layer
2.	SMTP listens on port
Option A:	22
Option B:	21
Option C:	20
Option D:	25
3.	Wireless standard is ?
Option A:	IEEE 802.10
Option B:	IEEE 801.20
Option C:	IEEE 802.11
Option D:	IEEE 802.20
4.	Identify range of well-known ports.
Option A:	1-1023
Option B:	49152 – 65535
Option C:	1024 – 49151
Option D:	0 - 1023
5.	For 'n' nodes to be connected on mesh topology, how many links are required?
Option A:	n(n+1)
Option B:	n(n-1)
Option C:	(n-1)
Option D:	N
6.	The value of acknowledgement field in a segment defines _____
Option A:	sequence number of the byte received previously
Option B:	total number of bytes to receive
Option C:	sequence number of the next byte to be received
Option D:	sequence of zeros and ones
7.	Identify mail protocols?
Option A:	SMTP and POP
Option B:	TCP and FTP

Option C:	FTP and SMTP
Option D:	POP and IP
8.	Fiber optics is based on the principle of --------------
Option A:	Total Internal Reflection
Option B:	Refraction
Option C:	Interference
Option D:	Light diffraction
9.	ARP stands for:
Option A:	Address Resolution Protocol
Option B:	Address Recall Protocol
Option C:	Address Resolution Phase
Option D:	Authentic Resolution Protocol
10.	A parabolic dish antenna is a(n) _____ antenna.
Option A:	unidirectional
Option B:	bidirectional
Option C:	omnidirectional
Option D:	horn
11.	What is start frame delimiter (SFD) in ethernet frame?
Option A:	10101010
Option B:	10101011
Option C:	00000000
Option D:	11111111
12.	What is the subnet mask for a class C Network?
Option A:	255.255.255.1
Option B:	255.255.255.0
Option C:	255.255.255.100
Option D:	255.255.255.254
13.	An interconnected collection of piconet is called ___
Option A:	Scatternet
Option B:	Micronet
Option C:	Mininet
Option D:	Multinet
14.	In CSMA/CD after the occurrence of collision, station waits for some random ------------- and then retransmits.
Option A:	back time
Option B:	back-off time
Option C:	back out time
Option D:	back in time
15.	In IPv4, fragmented datagram's fragment size should have first byte number divisible by _____.
Option A:	2
Option B:	4

Option C:	8
Option D:	16
16.	In Go-Back-N ARQ, if frames 4,5, and 6 are received successfully, the receiver may send an ACK _____ to the sender
Option A:	4
Option B:	5
Option C:	6
Option D:	7
17.	If data frame contains A B ESC FLAG C D ESC. What is the byte stuffed data?
Option A:	A B ESC ESCESC C D ESC ESC
Option B:	A B ESC ESCESC FLAG C D ESC ESC
Option C:	A B ESC ESC FLAG C D ESC ESC
Option D:	A B ESC ESCESC FLAG C D ESC
18.	Ping command is used to:
Option A:	Share routing information with a neighbor router
Option B:	Transmit user data when buffers are full
Option C:	Test connectivity at layer 3
Option D:	Test entire protocol stack
19.	Which of the following is the broadcast address for a Class B network ID using the default subnet mask?
Option A:	172.16.10.255
Option B:	172.16.255.255
Option C:	172.255.255.255
Option D:	255.255.255.255
20.	The Hamming distance between 100 and 001 is -------
Option A:	0
Option B:	1
Option C:	2
Option D:	3

Q2. Attempt any four from the following: **5 marks each**

    A. What are the design issues for the OSI layers?
    B. Differentiate between connection-oriented and connectionless service.
    C. List the advantages of fiber optics as a communication medium.
    D. Explain with examples classification of IPv4 addresses.
    E. Explain in short different framing methods.
    F. Explain the need of subnet mask in subnetting.

Q3. Attempt any four from the following: **5 marks each**

    A. Explain distance vector routing algorithm with example.
    B. Explain repeater, hub, bridge, switch, and gateway.
    C. Write short note on: HTTP.
    D. Given the dataword "1101011011" and the divisor "10011", show the generation of CRC codeword at the sender side.
    E. Explain leaky bucket algorithm.
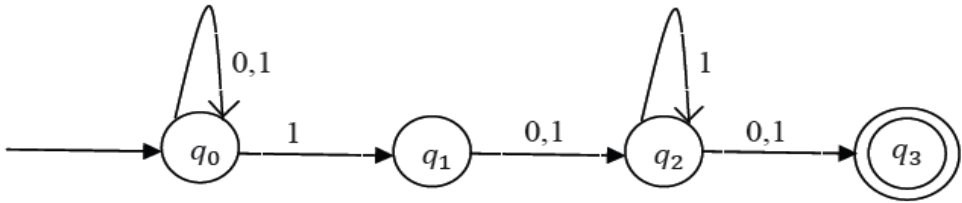   F. Draw and explain TCP header format.

Q1	Choose the correct option for the following questions. **2 Marks each** All questions carry equal marks.
1.	Consider the finite automaton in the following figure. What is the set of reachable states for the input string 0011?
Option A	{q0, q1, q2}
Option B	{q0, q1}
Option C	{q0, q1, q2, q3}
Option D	{q3}
2.	A language is regular if and only if:
Option A	accepted by DFA
Option B	accepted by PDA
Option C	accepted by LBA
Option D	accepted by Turing machine
3.	The lexical analysis for a modern computer language such as Java needs the power of which one of the following machine models in a necessary and sufficient sense?
Option A	Finite state automata
Option B	Deterministic pushdown automata
Option C	Non-Deterministic pushdown automata
Option D	Turing Machine

4.	Moore Machine is an application of:	
Option A	Finite automata without input	
Option B	Finite automata with output	
Option C	Non- Finite automata with output	
Option D	Non-Finite automata without output	
5.	A binary string is divisible by 4 if and only if it ends with:	
Option A	100	
Option B	1000	
Option C	1100	
Option D	0011	

6.	Which one of the following languages over the alphabet {0,1} is described by the regular expression: (0+1)*0(0+1)*0(0+1)*?	
Option A	The set of all strings containing the substring 00.	
Option B	The set of all strings containing at most two 0's.	
Option C	The set of all strings containing at least two 0's	
Option D	The set of all strings that begin and end with either 0 or 1.	
7.	Regular expression are:	
Option A	Type 0 language	
Option B	Type 1 language	
Option C	Type 2 language	
Option D	Type 3 language	
8.	Pumping Lemma is generally used for proving:	
Option A	A given grammar is regular	
Option B	A given grammar is not regular	
Option C	Whether two given RE are equivalent	
Option D	To prove the equivalence of DFA and NFA	

9.	Which of the following RE does not represent strings beginning with at least one 0 and ends with at least one 1?	
Option A	0*1*	
Option B	00*(0+1)*1	
Option C	0(0+1)*1	
Option D	01*	
10.	A language represented by a regular expression (a)*(a+ba). Which of the following string does not belong to the regular set represented by the above expression?	
Option A	Aaa	
Option B	Aba	
Option C	Ababa	
Option D	Aa	

11.	Given the following grammars: G_1: S → AB|aaB; A → aA | ∈; B → bB | ∈; G_2: S → A|B; A → aAb | ab; B → abB | ∈. Which of the following is correct?
Option A	G_1 is ambiguous and G_2 is unambiguous grammars.
Option B	G_1 is unambiguous and G_2 is ambiguous grammars
Option C	both G_1 and G_2 are ambiguous grammars.
Option D	both G_1 and G_2 are unambiguous grammars.
12.	A CFG G is given with the following productions where S is the start symbol, A is a non-terminal and a and b are terminals. S → aS|A A → aAb| bAa| ∈ Which of the following strings is generated by the grammar above?
Option A	Aabbaba
Option B	Aabaaba
Option C	Abababb
Option D	Aabbaab
13.	The production of the form A→B , where A and B are non terminals is called_____

Option A	Null production
Option B	Unit production
Option C	Greibach Normal Form
Option D	Chomsky Normal Form
14.	The context free grammar is ambiguous if:
Option A	The grammar contains useless non-terminals.
Option B	It produces more than one parse tree for some sentence.
Option C	Some productions has two non terminals side by side on the right-hand side.
Option D	If grammar has only one parse tree.
15.	A context free grammar G=(V,T,P,S) is said to be in _____if every production is of the form: A $\rightarrow$ aα, Where aϵ T is a terminal and α is a string of zero or more variables
Option A	Griebach Normal Form
Option B	Chomsky Normal Form
Option C	BCNF
Option D	1NF
16.	Pushdown automata can recognize language generated by_____.
Option A	Only context free grammar
Option B	Only regular grammar
Option C	Context free grammar or regular grammar
Option D	Only context sensitive grammar
17.	A PDA machine configuration (p, w, y) can be correctly represented as:
Option A	(current state, unprocessed input, stack content)
Option B	(unprocessed input, stack content, current state)
Option C	(current state, stack content, unprocessed input)
Option D	(stack content, unprocessed input, current state)
18.	PDA is useful in -

Option A	Lexical analysis
Option B	Semantic analysis
Option C	Syntactic analysis
Option D	All of these
19.	Which of the following is true for the language $\{a^p \mid p \text{ is a prime}\}$?
Option A	It is not accepted by a Turing Machine.
Option B	It is regular but not context-free
Option C	It is context-free but not regular
Option D	It is neither regular nor context-free, but accepted by a Turing machine
20.	In definition of TM, T=(Q,Σ,Γ,q0,δ) what Γ represents?
Option A	Tape Alphabets
Option B	Input Symbols
Option C	Transition Function
Option D	Initial State

Q2	Solve any FOUR out of SIX questions. 5 Marks each
A	Give regular expression, NFA and minimized DFA for the language over {0,1} having all the strings such that third symbol from the right end is zero.
B	Using pumping lemma, prove that the given language is not regular. L = {ww | w ε {0,1}*}
C	Compare Mealy and Moore machine. Design Mealy machine to convert each occurrence of substring abb by aba. Σ= {a,b}.
D	Construct PDA accepting L = {a^n b^m c^n | m,n >=1}
E	Convert following grammar to CNF: S → abAB A → bAB | ε B → Baa | A | ε

F	Construct NPDA for the following grammar:
	S → aABB | aAA
	A → aBB | a
	B→ bBB | A
Q3	**Solve any FOUR out of SIX questions.** **5 Marks each**
A	Convert following grammar to Greibach Normal Form
	S → SS | aSb | ab
B	Explain Chomsky Hierarchy of grammar?
C	Design a Turing Machine to multiply 2 unary numbers?
D	Design PDA for the language $L = \{wcw^R \mid w \; \varepsilon \; \{a,b\}^*\}$
E	Write short note on "Ambiguity Resolution"?
F	State the Post Correspondence problem.
	Let A = {001, 0011, 11, 101} and B = {01,111, 111, 010}. Does the pair (A,B) have a PC solution?

Examinations Commencing from from 7ᵗʰ January 2021 to 20ᵗʰ January 2021
Program: Computer Engineering
Curriculum Scheme: Rev2016
Examination: TE Semester V
Course Code: CSDLO5012 and Course Name: Advanced Operating System

Time: 2 hour   Max. Marks: 80

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All the Questions are compulsory and carry equal marks

Q1.	Size of inverted page table
Option A:	Depends on Primary memory
Option B:	Depends on Secondary memory
Option C:	Depends on Logical Memory
Option D:	Depends on Cache Memory
Q2.	Buffer Cache Contains
Option A:	File data block linked list
Option B:	File Descriptor Linked List
Option C:	PCB linked list
Option D:	Process wait queue
Q3.	Random Access file System Call is
Option A:	Random()
Option B:	Seek()
Option C:	Read()
Option D:	Write()
Q4.	How many entries are in a page table Having Page Size 4K and Physical Memory Of 1GB for a processor having 32 bit address lines. Program size 16MB
Option A:	4K
Option B:	8K
Option C:	18K
Option D:	32K
Q5.	What is the size of UNIX file if 4K block and 32 byte address per block, which require level 1 indirect block.
Option A:	52KB
Option B:	560KB
Option C:	1.072MB
Option D:	176KB
Q6.	If a parent has created 5 child processes having pid 10,20,30,40,50 and if child With pid = 30 exits then what will be the return value return by wait() function

	call on success
Option A:	1
Option B:	3
Option C:	30
Option D:	0
Q7.	Find the size of Inverted page table for a Physical memory of size 32MB having page size 4K bytes.
Option A:	32K
Option B:	4K
Option C:	16K
Option D:	8K
Q8.	Program enters Critical-Section if Test_and_set(T) values are
Option A:	If T = TRUE then FALSE
Option B:	If T =- TRUE then TRUE
Option C:	If T = FALSE then FALSE
Option D:	If T = FALSE then TRUE
Q9.	A program is 8 pages size P1 to P8 and Memory has 4 physical pages M1 to M4. If pages are accessed in the sequence (P1,P8,P8,P4,P4,P4,P3,P2,P6,P7,P8) x 2 time, How many times there will be page faults?
Option A:	14
Option B:	15
Option C:	7
Option D:	22
Q10.	Find Page Table Index for Virtual Address 0xABCDFFF0 to Physical address 1GB and page size 64K
Option A:	0xFFF0
Option B:	0xABFF
Option C:	0xABCD
Option D:	0x00CD
Q11.	Android Application exchange information through
Option A:	Broadcast Receiver
Option B:	Content Provider
Option C:	Intent
Option D:	Notification
Q12.	Android Dalvik machine is part of
Option A:	Runtime
Option B:	Linux Kernel
Option C:	Framework
Option D:	Native Library
Q13.	How many entries points an Android Application can have
Option A:	1

Option B:	2
Option C:	3
Option D:	4
Q14.	If a program has 30% of the sequential only code. Evaluate speedup if the code is executed on 5 processors parallel computer.
Option A:	5
Option B:	3
Option C:	2
Option D:	1
Q15.	A process P has triplet (Execution time (E), Frequency (F), Deadline (D)) And if P1(1,5,5), P2(2.5.5), P(2,8,8) find the smallest frame size of RTOS scheduler for P1,P2,P3. Use RMA.
Option A:	5
Option B:	10
Option C:	25
Option D:	40
Q16.	nCube where n = 5 architecture has processors count
Option A:	125
Option B:	32
Option C:	15
Option D:	243
Q17.	One of the following is machine-oriented name
Option A:	www.yahoo.com
Option B:	98.137.11.164
Option C:	C:/home/hello.class
Option D:	Windows.ini
Q18.	Program enters Critical-Section if Test_and_set(T) values are
Option A:	If T = TRUE then FALSE
Option B:	If T =- TRUE then TRUE
Option C:	If T = FALSE then FALSE
Option D:	If T = FALSE then TRUE
Q19.	Replication Transparency gives
Option A:	Fault Tolerance
Option B:	Concurrency
Option C:	Parallelism
Option D:	Consistency
Q20.	Affinity Base scheduling is normally observed in
Option A:	Uniform Parallel Processors Architecture
Option B:	Non-Uniform Parallel Processor Architecture
Option C:	Shared Memory Architecture
Option D:	Pipeline Processor Architecture

Q2 (20 Marks)	Solve Any Four out of Six (5 Marks Each)
A	What is scalability and Transparencies of a Distributed System? Site an example.
B	What is client Centric Consistency> Explain why DNS is Client Centric Consistency?
C	What is smart Scheduling? Explain the smart scheduling strategies used in Thread and process scheduling.
D	Explain Characteristics of Realtime OS and the different scheduling used .
E	What is Hypervisor and the Guest OS Explain commercial use of Cloud OS.
F	What is RMI and How it implements Distributed Application. Explain the role of RMIC.
Q3 (20 Marks)	Solve Any Four out of Six (5 Marks Each)
A	What is Inode structure? Explain and show two level indexing used in file allocation. Draw a neat diagram. Assume date if required.
B	Write a small pseudocode and explain the use of fork and wait function call to create 3 parallel child process. Use any other function call is required.
C	Explain the structure Page Directory and Page Table and its use.
D	What is the purpose of a file buffer and how a buffer pool is managed by UNIX
E	Explain smart disk block scheduling used by the OS to improve the performance of disk access.
F	Explain Android application components and their role in application logic.