

Meerut Institute of Technology, Meerut

Department of Computer Science and Engineering

Dated: 29-07-2019

Notice

This is for the information of all students of the CSE department, will organize the test series for GATE- 2020 every Saturday till 31/12/2019. All students who want to take GATE-2020 must present in the test series every Saturday and after the test series, whole test series questions will be discussed at the end .

(HOD CSE)



Meerut Institute of Technology, Meerut
Department of Computer Science and Engineering
GATE Test Series (Session: 2019 - 2020)

Attendance

S.No.	Roll No.	Name	Date ->	AUGUST					SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER			
1	1629210001	AANCHAL PANWAR		P																				
2	1629210002	AARTI GUPTA																						
3	1629210004	AAVUSHI TYAGI																						
4	1629210005	ABDUL AZEEM		P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	1629210006	ABHISHEK																						
6	1629210007	ABHISHEK TYAGI																						
7	1629210008	ADARSH SHARMA																						
8	1629210009	ADITYA KUMAR																						
9	1629210010	AJAY																						
10	1629210013	AKASH KUMAR MAHENDYAN		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	1629210014	AKSHARA CHAUHAN																						
12	1629210015	AMAN GUPTA																						
13	1629210016	AMAREET KUMAR																						
14	1629210017	AMMAR AHMAD																						
15	1629210018	ANKIT SAXENA		P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	1629210019	ANUSHKA SHARMA																						
17	1629210020	ARPIT SINGHAL																						
18	1629210021	ARPIT SHARMA																						
19	1629210023	ASHWANI RATHI		P	A	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	1629210025	AVANI AGARWAL																						
21	1629210026	AYUSH JAISWAL																						
22	1629210027	AYUSH MAHESHWARI																						
23	1629210028	AYUSH MITTAL																						
24	1629210029	DHARVA GARG																						
25	1629210030	DIKSHANT SAINI																						
26	1629210031	DIVYA BHULANIA																						
27	1629210032	DIVYANSHI AGRAWAL		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
28	1629210033	DRAVYANSH VASHISHTH																						
29	1629210035	GOURAV SHARMA																						
30	1629210036	HARIS TYAGI																						
31	1629210037	HARSH VARDHAN																						
32	1629210038	HARSH NAIN																						
33	1629210040	HEMANT KUMAR TYAGI																						
34	1629210041	HIMANSHU GOEL																						
35	1629210042	HIMANSHU NEGI																						
36	1629210043	HIMANSHU THAKUR																						
37	1629210044	ISHA BHADANA																						
38	1629210045	KESHAV RATHI																						
39	1629210046	KM. ARSHI SAINI																						
40	1629210047	KM. SAPNA AGARWAL		P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
41	1629210049	KM. VANSHIKA PATHAK		P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
42	1629210050	KUNDAN JHA		P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
43	1629210051	LAKSHYA PUNDIR																						
44	1629210052	LAKSHYA SINGH																						
45	1629210053	MANJUL SAINI		P	A	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
46	1629210054	MOHD ZUBAIR		P	A	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

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Department of Computer Science and Engineering
GATE Test Series (Session: 2019 - 2020)

Attendance

S.No.	Roll No.	Name	AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
47	1629210055	MOHIT KUMAR	P	A	P	P	P	P	A	P	P	A	P	P	P	A	P
48	1629210056	MONIKA GARG	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
49	1629210057	NEHA SOAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
50	1629210058	NISHU SINGH															
51	1629210059	OJASVI RANA															
52	1629210060	PALAK RASTOGI															
53	1629210061	PANKAJ SHARMA															
54	1629210062	PARAS TOMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
55	1629210063	PARSHANT KUMAR															
56	1629210065	PRANAV KUMAR															
57	1629210066	PRASHANT CHAUHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
58	1629210067	PRASHANT KUMAR NAGAR															
59	1629210068	PRASHANT SINGH															
60	1629210069	PRATIK SINGH															
61	1629210070	PRAVESH UNIYAL															
62	1629210071	PRINCE															
63	1629210072	PRIVANKA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
64	1629210073	PRIVANSH RASTOGI															
65	1629210074	PULKIT KAPIL															
66	1629210075	RAM KUMAR															
67	1629210076	RISHABH PRAJAPATI															
68	1629210077	RITIKA															
69	1629210078	RITIKA AGARWAL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
70	1629210079	ROHAN MAHAJAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
71	1629210080	ROHIT CHAUDHARY															
72	1629210081	SACHIN PAHWA															
73	1629210082	SADDAM AHMAD															
74	1629210083	SAGAR VERMA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
75	1629210085	SANYAM SINGHAL															
76	1629210087	SAURABH KUMAR NAGAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
77	1629210088	SHAN MOHD															
78	1629210089	SHIVAM SINGH															
79	1629210090	SHIVANI BARWA															
80	1629210091	SHIVANI SHARMA															
81	1629210092	SHIVANI GAUR															
82	1629210093	SHRUTI GARG															
83	1629210094	SHUBHAM															
84	1629210095	SHUBHAM BHATIA															
85	1629210097	SHUBHAM SRIVASTAVA															
86	1629210098	SUBHAM CHAUHAN															
87	1629210099	SUMIT KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
88	1629210100	UJJAWAL SHARMA															
89	1629210102	UTKARSH BHARDWAJ															
90	1629210101	VAISHALI TYAGI															
91	1629210103	VANI GUPTA															
92	1629210104	VARENVA SINGHAL															
93	1629210106	VISHAL KUMAR BHORIWAL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
94	1629210107	YOGITA SANGWAN															
95	1629210108	ZUHAIB BAIG															

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gate 2015 Syllabus for Computer Science- CS and we also provide details about the topics which you have to studied by the aspirants for Gate Computer Science Engineering - CS exams. Candidates may note that the Syllabus for GATE Computer Science Engineering - CSE will be arranged topic wise and students have to studied and prepare according to the given Pattern. All the Details are mention about the Syllabus for the gate 2015 Computer Science Engineering Papers - CS

1. COMPUTER SCIENCE AND INFORMATION TECHNOLOGY – CS & IT

Engineering Mathematics

Mathematical Logic: Propositional Logic; First Order Logic.

Probability: Conditional Probability; Mean, Median, Mode and Standard Deviation; Random Variables; Distributions; uniform, normal, exponential, Poisson, Binomial.

Set Theory & Algebra: Sets; Relations; Functions; Groups; Partial Orders; Lattice; Boolean Algebra.

Combinatorics: Permutations; Combinations; Counting; Summation; generating functions; recurrence relations; asymptotics.

Graph Theory: Connectivity; spanning trees; Cut vertices & edges; covering; matching; independent sets; Colouring; Planarity; Isomorphism.

Linear Algebra: Algebra of matrices, determinants, systems of linear equations, Eigen values and Eigen vectors.

Numerical Methods: LU decomposition for systems of linear equations; numerical solutions of non-linear algebraic equations by Secant, Bisection and Newton-Raphson Methods; Numerical integration by trapezoidal and Simpson's rules.

Calculus: Limit, Continuity & differentiability, Mean value Theorems, Theorems of integral calculus, evaluation of definite & improper integrals, Partial derivatives, Total derivatives, maxima & minima.

GENERAL APTITUDE(GA):

Verbal Ability: English grammar, sentence completion, verbal analogies, word groups, instructions, critical reasoning and verbal deduction.

Computer Science and Information Technology

Digital Logic: Logic functions, Minimization, Design and synthesis of combinational and sequential circuits; Number representation and computer arithmetic (fixed and floating point).

Computer Organization and Architecture: Machine instructions and addressing modes, ALU and data-path, CPU control design, Memory interface, I/O interface (Interrupt and DMA mode), Instruction pipelining, Cache and main memory, Secondary storage.

Programming and Data Structures: Programming in C; Functions, Recursion, Parameter passing, Scope, Binding; Abstract data types, Arrays, Stacks, Queues, Linked Lists, Trees, Binary search trees, Binary heaps.

Algorithms: Analysis, Asymptotic notation, Notions of space and time complexity, Worst and average case analysis; Design: Greedy approach, Dynamic programming, Divide-and-conquer; Tree and graph traversals, Connected components, Spanning trees, Shortest paths; Hashing, Sorting, Searching. Asymptotic analysis (best, worst, average cases) of time and space, upper and lower bounds, Basic concepts of complexity classes P, NP, NP-hard, NP-complete.

Theory of Computation: Regular languages and finite automata, Context free languages and Push-down automata, Recursively enumerable sets and Turing machines, Undecidability.

Compiler Design: Lexical analysis, Parsing, Syntax directed translation, Runtime environments, Intermediate and target code generation, Basics of code optimization.

Operating System: Processes, Threads, Inter-process communication, Concurrency, Synchronization, Deadlock, CPU scheduling, Memory management and virtual memory, File systems, I/O systems, Protection and security.

Databases: ER-model, Relational model (relational algebra, tuple calculus), Database design (integrity constraints, normal forms), Query languages (SQL), File structures (sequential files, indexing, B and B+ trees), Transactions and concurrency control.

Information Systems and Software Engineering: information gathering, requirement and feasibility analysis, data flow diagrams, process specifications, input/output design, process life cycle, planning and managing the project, design, coding, testing, implementation, maintenance.

Computer Networks: ISO/OSI stack, LAN technologies (Ethernet, Token ring), Flow and error control techniques, Routing algorithms, Congestion control, TCP/UDP and sockets, IP(v4), Application layer protocols (icmp, dns, smtp, pop, ftp, http); Basic concepts of hubs, switches, gateways, and routers. Network security basic concepts of public key and private key cryptography, digital signature, firewalls.

Web technologies: HTML, XML, basic concepts of client-server computing.

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT
Department of Computer Science and Engineering
Gate Test Series – 2019-20
Question Paper

1. An unordered list contains n distinct elements. The number of comparisons to find an element in this list that is neither maximum nor minimum is

- A. $\theta(n \log n)$
- B. $\theta(n)$
- C. $\theta(\log n)$
- D. $\theta(1)$

2. The minimum number of JK flip-flops required to construct a synchronous counter with the count sequence (0,0,1,1,2,2,3,3,0,0,...) is _____.

- A. 0
- B. 1
- C. 2
- D. 3

3. Assume that for a certain processor, a read request takes 50 nanoseconds on a cache miss and 5 nanoseconds on a cache hit. Suppose while running a program, it was observed that 80% of the processor's read requests result in a cache hit. The average read access time in nanoseconds is _____.

- A. 10
- B. 12
- C. 13
- D. 14

4. A computer system implements a 40-bit virtual address, page size of 8 kilobytes, and a 128-entry translation look-aside buffer (TLB) organized into 32 sets each having four ways. Assume that the TLB tag does not store any process id. The minimum length of the TLB tag in bits is _____.

- A. 20
- B. 10
- C. 11
- D. 22

5. Consider the following statements.

- I. The complement of every Turing decidable language is Turing decidable
 - II. There exists some language which is in NP but is not Turing decidable
 - III. If L is a language in NP, L is Turing decidable
- Which of the above statements is/are true?

- A. Only II
- B. Only III
- C. Only I and II
- D. Only I and III

6. Consider the following function written in the C programming language.

```
void foo(char *a){  
    if ( *a && *a != '\0' )  
        foo(a+1);  
    putchar(*a);  
}
```

The output of the above function on input "ABCDEFGH" is }

- A. ABCD EFGH
- B. ABCD
- C. HGFE DCBA
- D. DCBA

7. Consider a complete binary tree where the left and the right subtrees of the root are max-heaps. The lower bound for the number of operations to convert the tree to a heap is

- A. $\Omega(\log n)$
- B. $\Omega(n)$
- C. $\Omega(n \log n)$
- D. $\Omega(n^2)$

8. A binary tree T has 20 leaves. The number of nodes in T having two children is_____.

- A. 18
- B. 19
- C. 20
- D. 17

9. Consider the following C function.

```
int fun(int n){
    int x=1, k;
    if (n==1) return x;
    for (k=1; k<n; ++k)
        x = x + fun(k) * fun(n-k);
    return x;
}
```

The return value of fun (5) is_____.

- A. 0
- B. 26
- C. 51
- D. 22

10. A software requirements specification (SRS) document should avoid discussing which one of the following?

- A. User interface issues
- B. User Expectations
- C. Design specification
- D. Interfaces with third party software

11. Consider two decision problems Q_1 , Q_2 such that Q_1 reduces in polynomial time to 3-SAT and 3-SAT reduces in polynomial time to Q_2 . Then which one of the following is consistent with the above statement?

- A. Q_1 is in NP, Q_2 is NP hard.
- B. Q_2 is in NP, Q_1 is NP hard.
- C. Both Q_1 and Q_2 are in NP.
- D. Both Q_1 and Q_2 are NP hard.

12. Match the following:

List - I

- P. Lexical analysis
- Q. Parsing
- R. Register allocation
- S. Expression evaluation

List - II

- I. Graph coloring
- II. DFA minimization
- III. Post-order traversal
- IV. Production tree

- A. P-II, Q-III, R-I, S-IV
- B. P-II, Q-I, R-IV, S-III
- C. P-II, Q-IV, R-I, S-III
- D. P-II, Q-III, R-IV, S-I

13. In the context of abstract-syntax-tree (AST) and control-flow-graph (CFG), which one of the following is TRUE?

- A. In both AST and CFG, let node N_2 be the successor of node N_1 . In the input program, the code corresponding to N_2 is present after the code corresponding to N_1
- B. For any input program, neither AST nor CFG will contain a cycle
- C. The maximum number of successors of a node in an AST and a CFG depends on the input program
- D. Each node in AST and CFG corresponds to at most one statement in the input program

14. Consider the basic COCOMO model where E is the effort applied in person-months, D is the development time in chronological months, KLOC is the estimated number of delivered lines of code (in thousands) and a_b, b_b, c_b, d_b have their usual meanings. The basic COCOMO equations are of the form

- A. $E = a_b (KLOC) \exp(b_b), D = c_b (E) \exp(d_b)$
- B. $D = a_b (KLOC) \exp(b_b), E = c_b (D) \exp(d_b)$
- C. $E = a_b \exp(b_b), D = c_b (KLOC) \exp(d_b)$
- D. $E = a_b \exp(d_b), D = c_b (KLOC) \exp(b_b)$

15. A system has 6 identical resources and N processes competing for them. Each process can request at most 2 resources. Which one of the following values of N could lead to a deadlock?

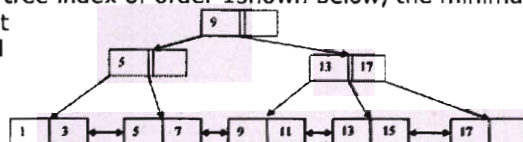
- A. 1
- B. 2
- C. 3
- D. None

16. Consider the following transaction involving two bank accounts x and y . Read (x); $x := x - 50$; write(x); read(y); $y := y + 50$; write(y)

The constraint that the sum of the accounts x and y should remain constant is that of

- A. Atomicity
- B. Consistency
- C. Isolation
- D. Durability

17. With reference to the B+ tree index of order 1 shown below, the minimum number of nodes (including the Root node) that must be fetched greater than or equal to 7 and



- A. 4
- B. 5
- C. 6
- D. 7

18. Identify the correct order in which a server process must invoke the function calls accept, bind, listen, and recv according to UNIX socket API.

- A. listen, accept, bind, recv
- B. bind, listen, accept, recv
- C. bind, accept, listen, recv
- D. accept, listen, bind, recv

19. A link has a transmission speed of 10^6 bits/sec. It uses data packets of size 1000 bytes each. Assume that the acknowledgment has negligible transmission delay, and that its propagation delay is the same as the data propagation delay. Also assume that the processing delays at nodes are negligible. The efficiency of the stop-and-wait protocol in this setup is exactly 25%. The value of the one-way propagation delay (in milliseconds) is

- A. 4
- B. 8
- C. 12
- D. 16

20. Consider the following routing table at an IP router:

Network No.	Net Mask	Next Hop
128.96.170.0	255.255.254.0	Interface 0
128.96.168.0	255.255.254.0	Interface 1
128.96.166.0	255.255.254.0	R2
128.96.164.0	255.255.252.0	R3
0.0.0.0	Default	R4

For each IP address in Group I identify the correct choice of the next hop from Group II using the entries from the routing table above.

Group I

- i) 128.96.171.92
- ii) 128.96.167.151
- iii) 128.96.163.151
- iv) 128.96.165.121

Group II

- a) Interface 0
 - b) Interface 1
 - c) R2
 - d) R3
 - e) R4
- A. i-a, ii-c, iii-e, iv-d
 - B. i-a, ii-d, iii-b, iv-e
 - C. i-b, ii-c, iii-d, iv-e
 - D. i-b, ii-c, iii-e, iv-d

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

Department of Computer Science and Engineering

Gate Test Series – 2019-20

Question Paper with Solution

1. An unordered list contains n distinct elements. The number of comparisons to find an element in this list that is neither maximum nor minimum is

- A. $\theta(n \log n)$
- B. $\theta(n)$
- C. $\theta(\log n)$
- D. $\theta(1)$

Answer ||| D

Solution |||

We only need to consider any 3 elements and compare them. So the number of comparisons is constants, that makes time complexity as $\theta(1)$. The catch here is, we need to return any element that is neither maximum nor minimum. Let us take an array $\{10, 20, 15, 7, \text{and } 90\}$. Output can be 10 or 15 or 20. Pick any three elements from given list. Let the three elements be 10, 20 and 7. Using 3 comparisons, we can find that the middle element is 10.

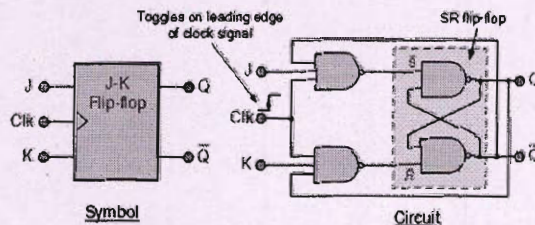
2. The minimum number of JK flip-flops required to construct a synchronous counter with the count sequence $(0, 0, 1, 1, 2, 2, 3, 3, 0, 0, \dots)$ is _____.

- A. 0
- B. 1
- C. 2
- D. 3

Answer ||| D

Solution |||

Answer = 3, mod 8 up counter using 3 JK flip flops. Ignore the output of LSB



3. Assume that for a certain processor, a read request takes 50 nanoseconds on a cache miss and 5 nanoseconds on a cache hit. Suppose while running a program, it was observed that 80% of the processor's read requests result in a cache hit. The average read access time in nanoseconds is _____.

- A. 10
- B. 12
- C. 13
- D. 14

Answer ||| D

Solution |||

The average read access time in nanoseconds =

$0.8 * 5 + 0.2 * 50 = 14$. The time a program or device takes to locate a single piece of information and make it available to the computer for processing. DRAM (dynamic random access memory) chips for personal computers have access times of 50 to 150 nanoseconds (billionths of a second). Static RAM (SRAM) has access times as low as 10 nanoseconds. Ideally, the access time of memory should be fast enough to keep up with the CPU. If not, the CPU will waste a certain number of clock cycles, which makes it slower.

4. A computer system implements a 40-bit virtual address, page size of 8 kilobytes, and a 128-entry translation look-aside buffer (TLB) organized into 32 sets each having four ways. Assume that the TLB tag does not store any process id. The minimum length of the TLB tag in bits is _____.

- A. 20
- B. 10
- C. 11
- D. 22

Answer ||| C

Solution |||

Total virtual address size = 40

Since there are 32 sets, set offset = 5

Since page size is 8 kilobytes, word offset = 13 Minimum tag size = $40 - 5 - 13 = 22$

5. Consider the following statements.

I. The complement of every Turing decidable language is Turing decidable

II. There exists some language which is in NP but is not Turing decidable

III. If L is a language in NP, L is Turing decidable Which of the above statements is/are true?

- A. Only II
- B. Only III
- C. Only I and II
- D. Only I and III

Answer ||| D

Solution |||

1 is true: Complement of Turing decidable is Turing Decidable.

3 are true. All NP problems are Turing decidable

2 is false: The definition of NP itself says solvable in

Polynomial time using non-deterministic Turing machine.

An algorithm is said to be solvable in polynomial time if the number of steps required to complete the algorithm for a given input is for some nonnegative integer, where is the complexity of the input. Polynomial-time algorithms are said to be "fast."

6. Consider the following function written in the C programming language.

```
void foo(char *a){
    if ( *a && *a != ' ' ){
        foo(a+1);
        putchar(*a);
    }
}
```

The output of the above function on input "ABCDEFGH" is }

- A. ABCD EFGH
- B. ABCD
- C. HGFE DCBA
- D. DCBA

Answer ||| D

Solution |||

The program prints all characters before ' ' or '\0' (whichever comes first) in reverse order. The first line of the program #includes <stdio.h> is a preprocessor command, which tells a C compiler to include stdio.h file before going to actual compilation. The next line int main() is the main function where the program execution begins.

7. Consider a complete binary tree where the left and the right subtrees of the root are max-heaps. The lower bound for the number of operations to convert the tree to a heap is

- A. $\Omega(\log n)$
- B. $\Omega(n)$
- C. $\Omega(n \log n)$
- D. $\Omega(n^2)$

Answer ||| A

Solution |||

The answer to this question is simply max-heapify function. Time complexity of max-heapify is $O(\log n)$ as it recurses at most through height of heap.

// A recursive method to heapify a sub tree with root at given index

// this method assumes that the sub trees are already heapified

Void MinHeap::MaxHeapify(int i)

{


```

Int l = left(i); Int r = right(i); Int largest = i;
If (l < heap size && harr[l] < harr[i]) Largest = l;
If (r < heap size && harr[r] < harr[smallest]) Largest = r;
If (largest != i)
{
Swap(&harr[i], &harr[largest]); MinHeapify(largest);
}
}

```

8. A binary tree T has 20 leaves. The number of nodes in T having two children is ____.

- A. 18
- B. 19
- C. 20
- D. 17

Answer ||| B

Solution |||

The number of nodes with two children is always one less than the number of leaves. In computer science, a binary tree is a tree data structure in which each node has at most two children, which are referred to as the left child and the right child. Binary trees are seldom used solely for their structure. Much more typical is to define a labeling function on the nodes, which associates some value to each node. Binary trees labeled this way are used to implement binary search trees and binary heaps, and are used for efficient searching and sorting. The designation of non-root nodes as left or right child even when there is only one child present matters in some of these applications, in particular it is significant in binary search trees. In mathematics, what is termed binary tree can vary significantly from author to author. Some use the definition commonly used in computer science, but others define it as every non-leaf having exactly two children and don't necessarily order (as left/right) the children either.

9. Consider the following C function.

```

int fun(int n){
    int x=1, k;
    if (n==1) return x;
    for (k=1; k<n; ++k)
        x = x + fun(k) * fun(n-k);
    return x;
}

```

The return value of fun (5) is _____.

- A. 0
- B. 26
- C. 51
- D. 22

Answer ||| C

Solution |||

$Fun(5) = 1 + fun(1) * fun(4) + fun(2) * fun(3) + Fun(3) * fun(2) + fun(4) * fun(1)$
 $= 1 + 2 * [fun(1) * fun(4) + fun(2) * fun(3)]$ Substituting $fun(1) = 1$
 $= 1 + 2 * [fun(4) + fun(2) * fun(3)]$ Calculating $fun(2)$, $fun(3)$ and $fun(4)$ $Fun(2) = 1 + fun(1) * fun(1) = 1 + 1 * 1 = 2$
 $Fun(3) = 1 + 2 * fun(1) * fun(2) = 1 + 2 * 1 * 2 = 5$ $Fun(4) = 1 + 2 * fun(1) * fun(3) + fun(2) * fun(2)$
 $= 1 + 2 * 1 * 5 + 2 * 2 = 15$
 Substituting values of $fun(2)$, $fun(3)$ and $fun(4)$ $Fun(5) = 1 + 2 * [15 + 2 * 5] = 51$

10. A software requirements specification (SRS) document should avoid discussing which one of the following?

- A. User interface issues
- B. User Expectations
- C. Design specification
- D. Interfaces with third party software

Answer ||| C

Solution |||

Software requirements specification (SRS) is a description of a software system to be developed, laying out functional and non-functional requirements, and may include a set of use cases that describe interactions the users will have with the software. Design Specification should not be part of SRS.

11. Consider two decision problems Q_1 , Q_2 such that Q_1 reduces in polynomial time to 3-SAT and 3-SAT reduces in polynomial time to Q_2 . Then which one of the following is consistent with the above statement?

- A. Q_1 is in NP, Q_2 is NP hard.
- B. Q_2 is in NP, Q_1 is NP hard.
- C. Both Q_1 and Q_2 are in NP.
- D. Both Q_1 and Q_2 are NP hard.

Answer ||| A

Solution |||

Q_1 reduces in polynomial time to 3-SAT

$\Rightarrow Q_1$ is in NP

3-SAT reduces in polynomial time to Q_2

$\Rightarrow Q_2$ is NP Hard. If Q_2 can be solved in P, then 3-SAT

Can be solved in P, but 3-SAT is NP-Complete, that makes Q_2 NP Hard

12. Match the following:

List - I

P. Lexical analysis

Q. Parsing

R. Register allocation

S. Expression evaluation

List - II

I. Graph coloring

II. DFA minimization

III. Post-order traversal

IV. Production tree

A. P-II, Q-III, R-I, S-IV

B. P-II, Q-I, R-IV, S-III

C. P-II, Q-IV, R-I, S-III

D. P-II, Q-III, R-IV, S-I

Answer ||| C

Solution |||

Register allocation is a variation of Graph Coloring problem.

Lexical Analysis uses DFA. Parsing makes production tree

Expression evaluation is done using tree traversal. In graph theory, graph coloring is a special case of graph labeling; it is an assignment of labels traditionally called "colors" to elements of a graph subject to certain constraints. In its simplest form, it is a way of coloring the vertices of a graph such that no two adjacent vertices share the same color; this is called a vertex coloring. Similarly, an edge coloring assigns a color to each edge so that no two adjacent edges share the same color, and a face coloring of a planar graph assigns a color to each face or region so that no two faces that share a boundary have the same color. Vertex coloring is the starting point of the subject, and other coloring problems can be transformed into a vertex version. For example, an edge coloring of a graph is just a vertex coloring of its line graph, and a face coloring of a plane graph is just a vertex coloring of its dual. However, non-vertex coloring problems are often stated and studied as is. That is partly for perspective, and partly because some problems are best studied in non-vertex form, as for instance is edge coloring.

13. In the context of abstract-syntax-tree (AST) and control-flow-graph (CFG), which one of the following is TRUE?

- A. In both AST and CFG, let node N_2 be the successor of node N_1 . In the input program, the code corresponding to N_2 is present after the code corresponding to N_1
- B. For any input program, neither AST nor CFG will contain a cycle
- C. The maximum number of successors of a node in an AST and a CFG depends on the input program
- D. Each node in AST and CFG corresponds to at most one statement in the input program

Answer ||| C

Solution |||

(A) is false, In CFG (Control Flow Graph), code of N_2 may be present before N_1 when there is a loop or goto.

(B) is false, CFG (Control Flow Graph) contains cycle when input program has loop.

(C) is true, successors in AST and CFG depend on input program

(D) is false, a single statement may belong to a block of statements.

14. Consider the basic COCOMO model where E is the effort applied in person-months, D is the development time in chronological months, KLOC is the estimated number of delivered lines of code (in thousands) and a_b , b_b , c_b , d_b have their usual meanings. The basic COCOMO equations are of the form

A. $E = a_b (KLOC) \exp(b_b)$, $D = c_b (E) \exp(d_b)$

B. $D = a_b (KLOC) \exp(b_b)$, $E = c_b (D) \exp(d_b)$

C. $E = a_b \exp(b_b)$, $D = c_b (KLOC) \exp(d_b)$

D. $E = a_b \exp(d_b)$, $D = c_b (KLOC) \exp(b_b)$

Answer ||| A

Solution |||

In Basic COCOMO, following are true.

Effort Applied (E) = $a_b(KLOC)^{b_b}$ [person-months] Development Time (D) = $c_b(\text{Effort Applied})^{d_b}$ [months]

People required (P) = Effort Applied / DevelopmentTime [count]

15. A system has 6 identical resources and N processes competing for them. Each process can request at most 2 resources. Which one of the following values of N could lead to a deadlock?

- A. 1
- B. 2
- C. 3

D. None

Answer ||| D

Solution ||| P1 --> 1

P2 --> 1

P3 --> 1

P4 --> 1

Even 4 processes can be in safe with 5 resources. So upto 5 processes there will be no deadlock.

16. Consider the following transaction involving two bank accounts x and y . Read (x); $x := x - 50$; write(x); read(y); $y := y + 50$; write(y)

The constraint that the sum of the accounts x and y should remain constant is that of

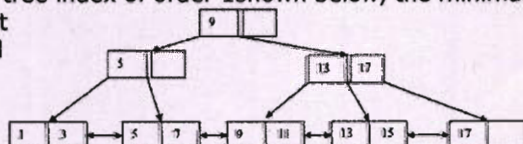
- A. Atomicity
- B. Consistency
- C. Isolation
- D. Durability

Answer ||| B

Solution |||

Consistency in database systems refers to the requirement that any given database transaction must only change affected data in allowed ways, that is sum of x and y must not change. Consistency in database systems refers to the requirement that any given database transaction must change affected data only in allowed ways. Any data written to the database must be valid according to all defined rules, including constraints, cascades, triggers, and any combination thereof.

17. With reference to the B+ tree index of order 1 shown below, the minimum number of nodes (including the Root node) that must be fetched greater than or equal to 7 and



- A. 4
- B. 5
- C. 6
- D. 7

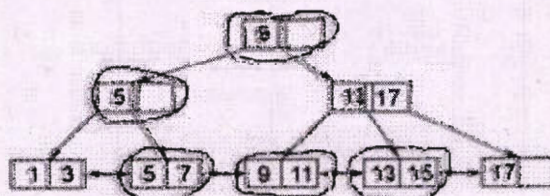
Answer ||| B

Solution |||

We can get all values in range from 7 to 59 by accessing 5 nodes.

1) First search 7 in a leaf node.

2) Once 7 is found, linearly traverse till 15 is found. See following diagram



18. Identify the correct order in which a server process must invoke the function calls accept, bind,listen, and recv according to UNIX socket API.

- A. listen, acc ept, bind, recv
- B. bind, listen, accept, recv
- C. bind, acce pt, listen, recv
- D. accept, listen, bind, recv

Answer ||| B

Solution |||

bind, listen, accept and recv are server side socketAPI functions.

bind() associates a socket with a socket addressstructure,

i.e. a specified local port number and IP address. listen() causes a bound TCP socket to enterlistening state.

accept() accepts a received incoming attempt tocreate a new

TCP connection from the remote client,

recv() is used to receive data from a remotesocket.

A server must first do bind() to tell operating system the port number on which it would be listing, then it must listen to receive incoming connection requests on the bound port number. Once a connection comes, the server accepts using accept(), then starts receiving data using recv().

19. A link has a transmission speed of 10^6 bits/sec.It uses data packets of size 1000 bytes each. Assume that the acknowledgment has negligible transmission delay, and that its propagation delay is the same as the data propagation delay. Also assume that the processing delays at nodes are negligible. The efficiency of the stop-and-wait protocol in this setup is exactly 25%. The value ofthe one-way propagation delay (in milliseconds) is

- A. 4
- B. 8
- C. 12
- D. 16

Answer ||| C

Solution |||

In stop and wait, protocol next packet is sent only when acknowledgement of previous packet is received. This

causes poor link utilization. Transmission speed = 10^6

Time to send a packet = $(1000 * 8) \text{ bits} / 10^6$

= 8 milliseconds

Since link utilization or efficiency is 25%, total timeTaken for 1 packet is $8 * 100/25 = 32$ milliseconds.Total time is twice the one way propagation delay plus transmission delay. Propagation delay has to be considered for packet and ack both.

Transmission delay is considered only for packet asthe question says that trans. time for ack is negligible.

Let propagation delay be $x. 2x + 8 = 32$

$x = 12$

Which one of the following statements is NOTcorrect about HTTP cookies?

- A. A cookie is a piece of code that has the potentialto compromise the security of an Internet user
- B. A cookie gains entry to the user's work area through an HTTP header

C. A cookie has an expiry date and time

D. Cookies can be used to track the browsingpattern of a user at a particular site

Answer ||| ASolution |||

Cookies are not piece of code, they are just stringstypically in the form of key value pairs.

Cookies are data, stored in small text files, on yourcomputer.

When a web server has sent a web page to abrowser, the connection is shut down, and theserver forgets everything about the user.

Cookies were invented to solve the problem "howto remember information about the user":

When a user visits a web page, his name can be stored in a cookie.

Next time the user visits the page, the cookie "remembers" his name.

20. Consider the following routing table at an IProuter:

Network No.	Net Mask	Next Hop
128.96.170.0	255.255.254.0	Interface 0
128.96.168.0	255.255.254.0	Interface 1
128.96.166.0	255.255.254.0	R2
128.96.164.0	255.255.252.0	R3
0.0.0.0	Default	R4

For each IP address in Group I identify the correctchoice of the next hop from Group II using the entries from

the routing table above.

Group I

- i) 128.96.171.92
- ii) 128.96.167.151
- iii) 128.96.163.151
- iv) 128.96.165.121

Group II

- a) Interface 0
 - b) Interface 1
 - c) R2
 - d) R3
 - e) R4
- A. i-a, ii-c, iii-e, iv-d
 - B. i-a, ii-d, iii-b, iv-e
 - C. i-b, ii-c, iii-d, iv-e
 - D. i-b, ii-c, iii-e, iv-d

Answer ||| A

Solution |||

The next hop is decided according to the longest prefix matching. Next hop is a routing term that refers to the next closest router a packet can go through. The next hop is among the series of routers that are connected together in a network and is the next possible destination for a datapacket. The Internet consists of thousands of different networks of every size and shape. Routers are among the most important and significant network devices in this network in that they hold the key to the rapid growth of the Internet worldwide, enabling communication among the devices. Therefore, a router has to manage the information related to its topological surroundings, specifically about nearby routers. Whenever a router maintains information about the routers in its routing table, the lowest metric among them is known as the next hop or the next optimal router.

19.2 ms

Meerut Institute of Technology, Meerut (292)
Department of Computer Science & Engineering
Gate Test Series - 2019-2020

Answer Sheet

Time: 1 Hr.

Max Marks: 20

Participant Details							
Roll No.:		1629210032					
Name:		Dip. Divyanshi Agrawal					
Branch:		Comp. Sc.					
Date of Test:		02/Nov/19					
Q. No.	Answer	Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	D ✓	16	B ✓				
2	D ✓	17	B ✓				
3	C ✗	18	C ✗				
4	C ✓	19	C ✓				
5	D ✓	20	B ✗				
6	D ✓						
7	A ✓						
8	B ✓						
9	C ✓						
10	D ✗						
11	A ✓						
12	C ✓						
13	B ✗						
14	A ✓						
15	D ✓						
Marks Scored		Signature (Evaluator)					
15		Kun					

Meerut Institute of Technology, Meerut

GATE TEST SERIES

Session: 2019-20 (ODD)

Summary Report

Submitted By:

Department of Computer Science & Engineering

Submitted To:

The Director

M.I.T., Meerut.

Gate Test Series

Summary Report

Tests and examinations are important aspects of education; they judge the students' potential and acquired knowledge. Tests and examinations therefore play a pivotal role in the journey of students' success. To plan the preparation strategy for any competitive exam like GATE, a GATE aspirant needs to be well aware of his/ her strengths, weaknesses as well as have the ability to tackle the psychological challenge posed by the exam. Overall, they need to be systematic and strategic. For this, one needs to get acquainted to the GATE exam pattern and type of questions asked.

Realizing the above mentioned, Department of CSE offers GATE Test Series that matches the level and orientation of the actual GATE. There are a good number of topic-wise tests and subject-wise tests to equip students in the most complete manner to accept, attempt and challenge the GATE exam. As student finish his/ her topic, and as he/ she finish his/ her subject, he/ she write the topic/subject-wise test and reflect upon him/ her. A student benchmark against the rest with regard to his/ her level of preparedness.

Importance of Test Series can be summarized as:

- Understanding proper Time Management.
- Familiarizing and revising the concepts.
- Familiarizing with final exam environment.
- Boosting self-confidence.
- Proper analysis of performance.
- Understanding weaknesses and strengths.
- Rectifying mistakes at the time of final exams.

This program was scheduled to be held weekly on every Saturday in the months of August to December in the session 2019-2020. This program was organized to be attended by the students of final year. This programme was open for all the final year students and all the students specially the GATE aspirants took much interest in attending the program, the average

attendance percentage of the programme was nearly 21%. Under this program, students were given test sheets and they were asked to submit the answer sheet in the prescribed time. Then subject experts from the faculty evaluated the sheets and returned to participants so that they can have a reflection of their performance. Solutions to the questions asked were also provided so that participants can practice them and may know where they did mistakes. Along with this, subject experts did a round of discussion on the questions and their respective solutions as well.

MEERUT INSTITUTE OF TECHNOLOGY

(Approved by AICTE & Affiliated to U.P. Technical University, Lucknow)
NH-58, Baral Partapur, Bypass Road, Meerut - 250 103, U.P., INDIA

Tel. : +91-121-2441600, 2441700, Fax : +91-121-2441700 Website : www.mitmeerut.ac.in

Mechanical Engineering Department

Date: 16Jan 2020

NOTICE

CCMT Counseling

Timings: 25-Jan-2020 (10 AM- 1PM)

Only for Mechanical Engineering (8th sem) Students

Interested candidates can send their names to the undersigned as soon as possible.



Mr. Ravi Ranjan Kumar
HOD, Mechanical Engineering Department
Meerut Institute of Technology, Meerut

CCMT Conselling content

Introduction:

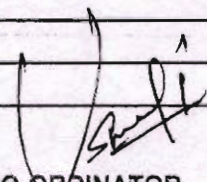
CCMT is a common platform for candidates to apply for M.Tech./ M.Arch./ M.Plan./M.Des. programmes, based on their GATE score of LAST 3 YEARS, in all NITs, IIST Shibpur, and some IITs & GFTIs (For details, please refer the list of Participating Institutes on CCMT website). This centralized system provides a common and convenient platform for online counseling wherein the candidates can fill-in single online application form from their homes and apply to all programmes in all the participating institutions to which they are eligible. The CCMT was initiated in the year 2012 for centralized admission for PG programmes and since then has undergone several changes to make it more student-friendly and included newer institutions under its umbrella. In the CCMT, new features such as online document verification have been introduced. For this purpose, after seat allotment, the candidates will be required to upload the needful documents. The features such as online withdrawal and willingness change etc. have been inherited from the previous years. Thus, the CCMT enormously increases the overall convenience of candidates. Candidates are allowed to participate in both regular rounds and Special Rounds even if one has obtained a seat in the regular round. The prospective candidates are advised to carefully read the information brochure and various other documents given on CCMT website.

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1. Introduction
2. Eligibility Requirements
3. Rules for Seat Allotment
4. Reservation of Seats
5. Counseling Process for regular rounds

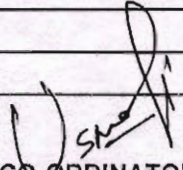
MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**Mechanical Engineering Department****List of enrolled students for CCMT Counselling****Session: 2019-20 (January 2020)**

S.N	Roll Number	Name of student
1	1629240003	JITENDAR KUMAR MISHRA
2	1629240004	KAJAL VERMA
3	1629240006	RAHUL RANA
4	1629240007	SHIVAM CHAUHAN
5	1629240008	SUDHANSHU RANJAN
6	1629240010	VISHAL SRIVASTAVA


CO-ORDINATOR

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**Mechanical Engineering Department****Attendance sheet for CCMT Counselling****Session: 2019-20 (January 2020)**

S.N	Roll Number	Name of student
1	1629240003	JITENDAR KUMAR MISHRA
2	1629240004	KAJAL VERMA
3	1629240006	RAHUL RANA
4	1629240007	SHIVAM CHAUHAN
5	1629240008	SUDHANSHU RANJAN
6	1629240010	VISHAL SRIVASTAVA


COORDINATOR

MEERUT INSTITUTE OF TECHNOLOGY

(Approved by AICTE & Affiliated to U.P. Technical University, Lucknow)

NH-58, Barai Partapur, Bypass Road, Meerut - 250 103, U.P., INDIA

Tel. : +91-121-2441600, 2441700, Fax : +91-121-2441700 Website : www.mitmeerut.ac.in

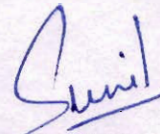
Mechanical Engineering Department

Date: 22 April 2019

NOTICE

GATE Classes

All students of ME 6 th semester are hereby informed that we are going to start GATE Classes from 1-July-2019 (Monday to Friday from 3:10 P.M - 4:40 P.M.). Interested students can send their names to the undersigned latest by 26- April- 2019.



Mr. Sunil Kumar Maurya
HOD, Mechanical Engineering Department
Meerut Institute of Technology, Meerut

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**Mechanical Engineering Department****List of enrolled students for GATE Classes****Session: 2019-20 (July 2019)**

S.N	Roll Number	Name of student
1	1629240004	KAJAL VERMA
2	1629240005	RADHESHYAM
3	1629240006	RAHUL RANA
4	1629240007	SHIVAM CHAUHAN
5	1629240008	SUDHANSHU RANJAN
	1629240010	VISHAL SRIVASTAVA

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N	Roll Number	Name of student	1/7/2019	2/7/2019	3/7/2019	4/7/2019	5/7/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	P	A	A	P	P
3	1629240006	RAHUL RANA	P	A	P	P	P
4	1629240007	SHIVAM CHAUHAN	A	P	P	A	A
5	1629240008	SUDHANSHU RANJAN	P	P	P	A	P
6	1629240010	VISHAL SRIVASTAVA	P	P	A	P	P

CO-ORDINATOR

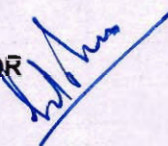


2019-20 GATE (2)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N	Roll Number	Name of student	8/7/2019	9/7/2019	10/7/2019	11/7/2019	12/7/2019
1	1629240004	KAJAL VERMA	P	P	A	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	A	P	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	A

CO-ORDINATOR

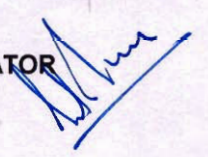


2019-20 GATE (3)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N.	Roll Number	Name of student	15/7/2019	16/7/2019	17/7/2019	18/7/2019	19/7/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	A	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	A	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	A
6	1629240010	VISHAL SRIVASTAVA	A	P	P	P	P

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT							
GATE Classes							
Session: 2019-20 (July 2019) (Attendance Sheet)							
DATE							
S.N.	Roll Number	Name of student	22/7/2019	23/7/2019	24/7/2019	25/7/2019	26/7/2019
1	1629240004	KAJAL VERMA	P	P	P	P	A
2	1629240005	RADHESHYAM	A	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	A	P	P
6	1629240010	VISHAL SRIVASTAVA	P	A	P	P	P

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N.	Roll Number	Name of student	29/7/2019	30/7/2019	31/7/2019	1/8/2019	2/8/2019
1	1629240004	KAJAL VERMA	P	P	P	P	A
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	A	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	P

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT							
GATE Classes							
Session: 2019-20 (July 2019) (Attendance Sheet)							
DATE							
S.N	Roll Number	Name of student	5/8/2019	6/8/2019	7/8/2019	8/8/2019	9/8/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	A	P	A	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	A

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N	Roll Number	Name of student	12/8/2019	13/8/2019	14/8/2019	15/8/2019	16/8/2019
1	1629240004	KAJAL VERMA	Holiday	A	P	Holiday	A
2	1629240005	RADHESHYAM		P	P		P
3	1629240006	RAHUL RANA		P	A		P
4	1629240007	SHIVAM CHAUHAN		P	P		P
5	1629240008	SUDHANSHU RANJAN		P	P		P
6	1629240010	VISHAL SRIVASTAVA		P	P		A

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)**

DATE							
S.N.	Roll Number	Name of student	19/8/2019	20/8/2019	21/8/2019	22/8/2019	23/8/2019
1	1629240004	KAJAL VERMA	P	A	P	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	A	P	P

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N	Roll Number	Name of student	26/8/2019	27/8/2019	28/8/2019	29/8/2019	30/8/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	A	P
4	1629240007	SHIVAM CHAUHAN	P	P	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	P

CO-ORDINATOR

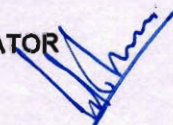


2019-20 GATE (10)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N	Roll Number	Name of student	2/9/2019	3/9/2019	4/9/2019	5/9/2019	6/9/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	P	A	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	P

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MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N.	Roll Number	Name of student	9/9/2019	10/9/2019	11/9/2019	12/9/2019	13/9/2019
1	1629240004	KAJAL VERMA	P	Holiday	P	P	P
2	1629240005	RADHESHYAM	P		P	P	P
3	1629240006	RAHUL RANA	P		P	A	P
4	1629240007	SHIVAM CHAUHAN	P		P	A	P
5	1629240008	SUDHANSHU RANJAN	P		P	P	P
6	1629240010	VISHAL SRIVASTAVA	P		P	P	P

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MEERUT INSTITUTE OF TECHNOLOGY, MEERUT							
GATE Classes							
Session: 2019-20 (July 2019) (Attendance Sheet)							
DATE							
S.N.	Roll Number	Name of student	16/9/2019	17/9/2019	18/9/2019	19/9/2019	20/9/2019
1	1629240004	KAJAL VERMA	P	P	P	P	A
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	A	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	P


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MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N.	Roll Number	Name of student	23/9/2019	24/9/2019	25/9/2019	26/9/2019	27/9/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	A	P	P
5	1629240008	SUDHANSHU RANJAN	P	A	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	P

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MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**


S.N.	Roll Number	Name of student	30/9/2019	1/10/2019	2/10/2019	3/10/2019	4/10/2019
1	1629240004	KAJAL VERMA	P	P	Holiday	P	P
2	1629240005	RADHESHYAM	P	P		P	A
3	1629240006	RAHUL RANA	P	P		P	P
4	1629240007	SHIVAM CHAUHAN	P	P		P	P
5	1629240008	SUDHANSHU RANJAN	P	A		P	P
6	1629240010	VISHAL SRIVASTAVA	P	P		P	P

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT							
GATE Classes							
Session: 2019-20 (July 2019) (Attendance Sheet)							
DATE							
S.N.	Roll Number	Name of student	7/10/2019	8/10/2019	9/10/2019	10/10/2019	11/10/2019
1	1629240004	KAJAL VERMA	Holiday	Holiday	P	P	P
2	1629240005	RADHESHYAM			P	P	P
3	1629240006	RAHUL RANA			P	P	P
4	1629240007	SHIVAM CHAUHAN			P	P	P
5	1629240008	SUDHANSHU RANJAN			P	P	P
6	1629240010	VISHAL SRIVASTAVA			P	P	P

CO-ORDINATOR



2019-20 GATE (16)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**GATE Classes****Session: 2019-20 (July 2019) (Attendance Sheet)****DATE**

S.N.	Roll Number	Name of student	14/10/2019	15/10/2019	16/10/2019	17/10/2019	18/10/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	P

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT							
GATE Classes							
Session: 2019-20 (July 2019) (Attendance Sheet)							
DATE							
S.N.	Roll Number	Name of student	21/10/2019	22/10/2019	23/10/2019	24/10/2019	25/10/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	A	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	P	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	P

CO-ORDINATOR



2019-20 GATE (18)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT							
GATE Classes							
Session: 2019-20 (July 2019) (Attendance Sheet)							
DATE							
S.N.	Roll Number	Name of student	28/10/2019	29/10/2019	30/10/2019	31/10/2019	1/11/2019
1	1629240004	KAJAL VERMA	Holiday	Holiday	P	P	P
2	1629240005	RADHESHYAM			P	P	P
3	1629240006	RAHUL RANA			P	P	P
4	1629240007	SHIVAM CHAUHAN			A	P	P
5	1629240008	SUDHANSHU RANJAN			P	P	P
6	1629240010	VISHAL SRIVASTAVA			P	P	P

CO-ORDINATOR



2019-20 GATE (19)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

GATE Classes

Session: 2019-20 (July 2019) (Attendance Sheet)

DATE

S.N.	Roll Number	Name of student	4/11/2019	5/11/2019	6/11/2019	7/11/2019	8/11/2019
1	1629240004	KAJAL VERMA	P	P	P	P	P
2	1629240005	RADHESHYAM	P	P	P	P	P
3	1629240006	RAHUL RANA	P	P	P	P	P
4	1629240007	SHIVAM CHAUHAN	P	P	A	P	P
5	1629240008	SUDHANSHU RANJAN	P	P	P	P	P
6	1629240010	VISHAL SRIVASTAVA	P	P	P	P	P

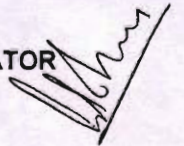
CO-ORDINATOR



2019-20 GATE (20)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT							
GATE Classes							
Session: 2019-20 (July 2019) (Attendance Sheet)							
DATE							
S.N.	Roll Number	Name of student	11/11/2019	12/11/2019	13/11/2019	14/11/2019	15/11/2019
1	1629240004	KAJAL VERMA	P	Holiday	A	P	P
2	1629240005	RADHESHYAM	P		P	A	P
3	1629240006	RAHUL RANA	P		P	P	P
4	1629240007	SHIVAM CHAUHAN	P		P	P	P
5	1629240008	SUDHANSHU RANJAN	P		P	P	P
6	1629240010	VISHAL SRIVASTAVA	P		P	P	P

CO-ORDINATOR



MEERUT INSTITUTE OF TECHNOLOGY

(Approved by AICTE & Affiliated to U.P. Technical University, Lucknow)

NH-58, Baral Partapur, Bypass Road, Meerut - 250 103, U.P., INDIA

Tel. : +91-121-2441600, 2441700, Fax : +91-121-2441700 Website : www.mitmeerut.ac.in

Mechanical Engineering Department

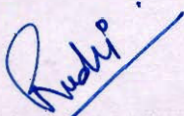
Date: 22 Feb 2020

NOTICE

Group Discussion

Only for Mechanical Engineering (8th sem) Students

All students of ME 8th semester are hereby informed that Group discussion will be held in March. Interested candidates can send their names to the undersigned as soon as possible. Date and time slot group wise will be notified separately.



Ms. Ruchi Mittal
In-charge
MED, Meerut Institute of Technology, Meerut



Mr. Ravi Ranjan Kumar
HOD, Mechanical Engineering Department
Meerut Institute of Technology, Meerut

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**Mechanical Engineering Department****List of enrolled students for Group Discussion****Session: 2019-20 (March 2020)**

S.N	Roll Number	Name of student
1	1629240003	JITENDAR KUMAR MISHRA
2	1629240004	KAJAL VERMA
3	1629240005	RADHESHYAM
4	1629240006	RAHUL RANA
5	1629240007	SHIVAM CHAUHAN
6	1629240008	SUDHANSHU RANJAN
7	1629240010	VISHAL SRIVASTAVA


CO-ORDINATOR

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**Mechanical Engineering Department****Date and time slot for Group discussion****Session: 2019-20 (March 2020)**

S.N.	Group	Roll Number	Name of student	Date	Time
1	A	1629240003	JITENDAR KUMAR MISHRA	7/3/2020	10:00 A.M.-10:30 A.M.
2		1629240004	KAJAL VERMA		
3		1629240005	RADHESHYAM		
4		1629240006	RAHUL RANA		
5		1629240007	SHIVAM CHAUHAN		
6		1629240008	SUDHANSHU RANJAN		
7		1629240010	VISHAL SRIVASTAVA		


 CO-ORDINATOR

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**Mechanical Engineering Department****Attendance sheet for Group Discussion****Session: 2019-20 (March 2020)**

S.N	Roll Number	Name of student
1	1629240003	JITENDAR KUMAR MISHRA
2	1629240004	KAJAL VERMA
3	1629240005	RADHESHYAM
4	1629240006	RAHUL RANA
5	1629240007	SHIVAM CHAUHAN
6	1629240008	SUDHANSHU RANJAN
7	1629240010	VISHAL SRIVASTAVA


CO-ORDINATOR

MEERUT INSTITUTE OF TECHNOLOGY

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Tel. : +91-121-2441600, 2441700, Fax : +91-121-2441700 Website : www.mitmeerut.ac.in

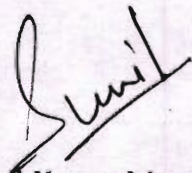
Mechanical Engineering Department

Date: 22 April 2019

NOTICE

Aptitude Classes

All students of ME 6 th semester are hereby informed that we are going to start Aptitude Classes from 6-July-2019. (Every Saturday from 10: 00 A.M to 1 P.M.) Interested students can send their names to the undersigned latest by 26- April- 2019.



Mr. Sunil Kumar Maurya
HOD, Mechanical Engineering Department
Meerut Institute of Technology, Meerut

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT		
Mechanical Engineering Department		
List of enrolled students for APTITUDE Classes		
Session: 2019-20 (July 2019)		
S.N	Roll Number	Name of student
1	1629240003	JITENDAR KUMAR MISHRA
2	1629240004	KAJAL VERMA
3	1629240005	RADHESHYAM
4	1629240006	RAHUL RANA
5	1629240007	SHIVAM CHAUHAN
6	1629240008	SUDHANSHU RANJAN
	1629240010	VISHAL SRIVASTAVA


CO-ORDINATOR

2019-20 Aptitude

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT								
APTITUDE Classes								
Session: 2019-20 (July 2019) (Attendance Sheet)								
DATE								
S.N	Roll Number	Name of student	6/7/2019	13/7/2019	20/7/2019	27/7/2019	3/8/2019	10/8/2019
1	1629240003	JITENDAR KUMAR MISHRA	P	P	P	P	P	P
2	1629240004	KAJAL VERMA	A	P	P	P	P	P
3	1629240005	RADHESHYAM	P	P	P	P	A	P
4	1629240006	RAHUL RANA	P	A	A	P	P	P
5	1629240007	SHIVAM CHAUHAN	P	P	P	P	P	P
6	1629240008	SUDHANSHU RANJAN	P	P	P	P	P	P
7	1629240010	VISHAL SRIVASTAVA	P	P	P	P	A	P

CO-ORDINATOR

2019-20 Aptitude (2)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT								
APTITUDE Classes								
Session: 2019-20 (July 2019) (Attendance Sheet)								
DATE								
S.N	Roll Number	Name of student	17/8/2019	31/8/2019	7/9/2019	14/9/2019	21/9/2019	28/9/2019
1	1629240003	JITENDAR KUMAR MISHRA	P	A	A	P	P	P
2	1629240004	KAJAL VERMA	P	P	P	P	P	P
3	1629240005	RADHESHYAM	P	P	A	P	P	P
4	1629240006	RAHUL RANA	P	P	P	P	P	P
5	1629240007	SHIVAM CHAUHAN	P	P	P	P	P	P
6	1629240008	SUDHANSHU RANJAN	A	P	P	P	P	P
7	1629240010	VISHAL SRIVASTAVA	P	P	P	A	P	P

[Signature]
CO-ORDINATOR

2019-20 Aptitude (3)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT								
APTITUDE Classes								
Session: 2019-20 (July 2019) (Attendance Sheet)								
DATE								
S.N	Roll Number	Name of student	5/10/2019	12/10/2019	19/10/2019	26/10/2019	2/11/2019	9/11/2019
1	1629240003	JITENDAR KUMAR MISHRA	P	P	P	P	P	P
2	1629240004	KAJAL VERMA	P	A	P	P	P	P
3	1629240005	RADHESHYAM	P	P	P	P	A	P
4	1629240006	RAHUL RANA	P	A	P	P	P	P
5	1629240007	SHIVAM CHAUHAN	P	P	P	P	P	A
6	1629240008	SUDHANSHU RANJAN	P	A	P	P	P	P
7	1629240010	VISHAL SRIVASTAVA	P	P	P	P	A	P

[Signature]
CO-ORDINATOR

MEERUT INSTITUTE OF TECHNOLOGY

(Approved by AICTE & Affiliated to U.P. Technical University, Lucknow)

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Mechanical Engineering Department

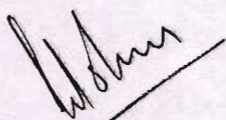
Date: 23 Jan 2020

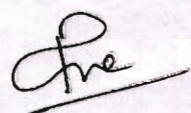
NOTICE

Mock Interview

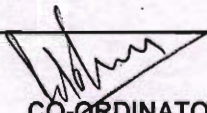
Only for Mechanical Engineering (8th sem) Students

All students of ME 8th semester are hereby informed that Mock interview will held in February. Interested candidates can send their names to the undersigned as soon as possible. Date and time slot of individual candidate will be notified separately.


Mr. Gulshan Kumar
In-charge
MED, Meerut Institute of Technology, Meerut


Mr. Ravi Ranjan Kumar
HOD, Mechanical Engineering Department
Meerut Institute of Technology, Meerut

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT		
Mechanical Engineering Department		
List of enrolled students for Mock Interview		
Session: 2019-20 (February 2020)		
S.N	Roll Number	Name of student
1	1629240004	KAJAL VERMA
2	1629240005	RADHESHYAM
3	1629240006	RAHUL RANA
4	1629240007	SHIVAM CHAUHAN
5	1629240008	SUDHANSHU RANJAN
6	1629240010	VISHAL SRIVASTAVA


CO-ORDINATOR

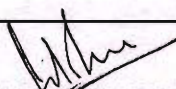
MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**Mechanical Engineering Department****Date and time slot for Mock Interview****Session: 2019-20 (Feburary 2020)**

S.N	Roll Number	Name of student	Date of Interview	Interview time
1	1629240004	KAJAL VERMA	8/2/2020	10:00 A.M. - 10:15 A.M.
2	1629240005	RADHESHYAM	8/2/2020	10:15 A.M. - 10:30 A.M.
3	1629240006	RAHUL RANA	8/2/2020	10:30 A.M. - 10:45 A.M.
4	1629240007	SHIVAM CHAUHAN	8/2/2020	10:45 A.M. - 11:00 A.M.
5	1629240008	SUDHANSHU RANJAN	8/2/2020	11:00 A.M. - 11:15 A.M.
6	1629240010	VISHAL SRIVASTAVA	8/2/2020	11:15 A.M. - 11:30 A.M.


CO-ORDINATOR

2019-20 Mock Interview

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT		
Mechanical Engineering Department		
Attendance sheet for Mock Interview		
Session: 2019-20 (February 2020)		
S.N	Roll Number	Name of student
1	1629240004	KAJAL VERMA
2	1629240005	RADHESHYAM
3	1629240006	RAHUL RANA
4	1629240007	SHIVAM CHAUHAN
5	1629240008	SUDHANSHU RANJAN
6	1629240010	VISHAL SRIVASTAVA


CO-ORDINATOR

Date: 13/09/19

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT
DEPARTMENT OF ELECTRONICS AND
COMMUNICATION

NOTICE

This is to inform everybody that there will be special sessions on GATE Previous years problem solving which will be held every Saturday starting from 14/09/2019. Students are expected to register and attend these sessions who are looking forward to do M.Tech as their higher studies. Schedule for the sessions will be notified to all.


HOD

CC.

1. Director-For Kind Information
2. Registrar Office
3. Notice Boards

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

Schedule for GATE Previous Years Problem Solving Classes

		Topics
14/09/2019	Session-1	Previous Years Problem discussion of Networks Analysis and Synthesis
21/09/2019	Session-2	Previous Years Problem discussion of Electronic Devices
28/09/2019	Session-3	Previous Years Problem discussion of Analog Circuits
05/10/2019	Session-4	Previous Years Problem discussion of Digital circuits
12/10/2019	Session-5	Previous Years Problem discussion of Signals and Systems
02/11/2019	Session-6	Previous Years Problem discussion of Control Systems
09/11/2019	Session-7	Previous Years Problem discussion of Communications
16/11/2019	Session-8	Previous Years Problem discussion of Electromagnetics

Note: Each Session is of 6 Hrs duration timing for each session will be from 9:00 AM to 5:00PM with two session breaks. Break 1 will be from 11:00 to 11:30 AM and Break 2 will be from 2:00 to 2:45 PM
Each student has to bring his/her own scientific calculator.


(Co-ordinator)

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

DEPT OF EC

SESSIONS ON GATE PREVIOUS YEARS PROBLEMS

14/09/2019-16/11/2019

S No.	Name of the Student	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
1	ASHU TYAGI	P	P	P	P	P	A	P	P
2	PRINCE KUMAR	P	A	P	P	P	A	P	P
3	SHYAM SHANKAR	A	P	P	P	P	P	A	P
4	UJJWAL TYAGI	P	P	P	P	P	A	P	P

Signature

Date: 13/09/19

MEERUT INSTITUTE OF TECHNOLOGY, MEERUT
DEPARTMENT OF ELECTRONICS AND
COMMUNICATION

NOTICE

This is to inform everybody that there will be special sessions on Schedule for Mock Aptitude and Group Discussions which will be held every Saturday starting from 14/09/2019. Students who are interested can contact Mr. Arun Kumar For further information.


HOD

CC.

1. Director-For Kind Information
2. Registrar Office
3. Notice Boards

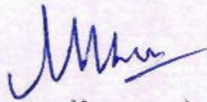
MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

Schedule for Mock Aptitude and Group Discussions

		Topics
14/09/2019	Session-1	Area, Average, Problem on Ages and Alligation or Mixture
21/09/2019	Session-2	Percentage, Banker's Discount,
28/09/2019	Session-3	HCF and LCM, Boats and Streams and Simple Interest
05/10/2019	Session-4	Surds and Indices, Problems on Trains,
12/10/2019	Session-5	Ratio and Proportion and Profit and Loss
02/11/2019	Session-6	Pipes and Cisterns, Square Root and Cube Root,
09/11/2019	Session-7	Partnership, Time and Distance, Volume and Surface Area and Time and Work
16/11/2019	Session-8	GD

Note: Each Session is of 6 Hrs duration timing for each session will be from 9:00 AM to 5:00PM with two session breaks. Break 1 will be from 11:00 to 11:30 AM and Break 2 will be from 2:00 to 2:45 PM


(Co-ordinator)

SESSIONS ON Mock Aptitude and Group Discussions

14/09/19- 16/11/19

S No.	Name of the Student	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
1	ABHISHU GAUR	P	P	P	P	A	P	P	P
2	KM. PRIYA SHARMA	P	P	P	P	P	P	P	A
3	KESAR GUPTA	P	P	P	P	P	A	P	P
4	SHYAM KUMAR	P	P	P	P	P	P	P	P

Abhishu