$\qquad$

| Subject Code | Q Id | Questions | Answer Key |
| :---: | :---: | :---: | :---: |
| 502 | 2251 | In Unix, Which system call creates the new process? <br> (A) fork <br> (B) create <br> (C) new <br> (D) signal | (A) |
| 502 | 2252 | Full form of IMAP is <br> (A) None of these <br> (B) Internet Message Access Protocol <br> (C) Intranet Message Access Protocol <br> (D) Internet Message Application Protocol | (B) |
| 502 | 2253 | You are given pointers to first and last nodes of a singly linked list, which of the following operations are dependent on the length of the linked list? <br> (A) Delete the first element <br> (B) Insert a new element as a first element <br> (C) Delete the last element of the list <br> (D) Add a new element at the end of the list | (C) |
| 502 | 2254 | A Priority-Queue is implemented as a Max-Heap. Initially, it has 5 elements. The level-order traversal of the heap is given below: $10,8,5,3,2$ Two new elements " 1 ' and " 7 ' are inserted in the heap in that order. The level-order traversal of the heap after the insertion of the elements is: <br> (A) $10,8,7,5,3,2,1$ <br> (B) $10,8,7,2,3,1,5$ <br> (C) $10,8,7,1,2,3,5$ <br> (D) $10,8,7,3,2,1,5$ | (D) |
| 502 | 2255 | If queue is implemented using arrays, what would be the worst run time complexity of queue and dequeue operations? <br> (A) $\mathrm{O}(\mathrm{n}), \mathrm{O}(\mathrm{n})$ <br> (B) $\mathrm{O}(\mathrm{n}), \mathrm{O}(1)$ <br> (C) $\mathrm{O}(1), \mathrm{O}(\mathrm{n})$ <br> (D) $\mathrm{O}(1), \mathrm{O}(1)$ | (D) |
| 502 | 2256 | In binary heap, whenever the root is removed then the rightmost element of last level is replaced by the root. Why? <br> (A) It is the easiest possible way. <br> (B) To make sure that it is still complete binary tree. <br> (C) Because left and right subtree might be missing. <br> (D) None of the above | (B) |
| 502 | 2257 | 'C' variable cannot start with <br> (A) A number | (C) |


|  |  | (B) A special symbol other than underscore <br> (C) Both of the above <br> (D) An alphabet |  |
| :---: | :---: | :---: | :---: |
| 502 | 2258 | $\qquad$ sorting is good to use when alphabetizing large list of names. <br> (A) Merge <br> (B) Heap <br> (C) Radix <br> (D) Bubble | (C) |
| 502 | 2259 | It is not the layer of the Operating system. <br> (A) Kernel <br> (B) Shell <br> (C) Application program <br> (D) Critical Section | (D) |
| 502 | 2260 | Mutual exclusion <br> (A) if one process is in a critical region others are excluded <br> (B) Prevents deadlock <br> (C) Requires semaphores to implement <br> (D) Is found only in the Windows NT operating system | (A) |
| 502 | 2261 | The post order traversal of a binary tree is DEBFCA. Find out the pre order Traversal. <br> (A) ABFCDE <br> (B) ADBFEC <br> (C) ABDECF <br> (D) ABDCEF | (C) |
| 502 | 2262 | (A) simple <br> (B) regular <br> (C) complete <br> (D) multi | (B) |
| 502 | 2263 | URL is short form for <br> (A) Universal Resource Loader <br> (B) Uniform Resource Locator <br> (C) None of these | (B) |


|  |  | (D) Uniform Resource Loader |  |
| :---: | :---: | :---: | :---: |
| 502 | 2264 | For the circuit shown for $\mathrm{AB}=00, \mathrm{AB}=01, \mathrm{C}, \mathrm{S}$ values respectively are <br> (A) 0,0 and 0,1 <br> (B) 0,0 and 1,0 <br> (C) 0,1 and 0,0 <br> (D) 1,0 and 0,0 | (A) |
| 502 | 2265 | Which data communication method is used to transmit the data over a serial communication link? <br> (A) Simplex <br> (B) Half-duplex <br> (C) Full duplex <br> (D) All of above | (C) |
| 502 | 2266 | What is the maximum number of edges in an acyclic undirected graph with n vertices? <br> (A) $\mathrm{n}-1$ <br> (B) $n$ <br> (C) $n+1$ <br> (D) $2 \mathrm{n}-1$ | (A) |
| 502 | 2267 | If a member needs to have unique value for all the objects of that same class, declare the member as <br> (A) Global variable outside class <br> (B) Local variable inside constructor <br> (C) Static variable inside class <br> (D) Dynamic variable inside class | (A) |
| 502 | 2268 | Given an array arr $=\{5,6,77,88,99\}$ and key $=88$; How many iterations are done until the element is found in binary search? <br> (A) 1 <br> (B) 3 <br> (C) 4 <br> (D) 2 | (D) |
| 502 | 2269 | In OSI model dialogue control and token management are responsibilities of? <br> (A) Session Layer <br> (B) Network layer <br> (C) Transport layer <br> (D) Data link layer | (A) |


| 502 | 2270 | The worst-case running time of Merge sort algorithm is described by the following recurrence relation : $\begin{array}{ll} \mathrm{T}(\mathrm{n})=1 & \text {, if } \mathrm{n}=1 \\ \mathrm{~T}(\mathrm{n})=2 \mathrm{~T}(\mathrm{n} / 2)+\mathrm{n} & \text {, otherwise } \end{array}$ Given recurrence equation evaluates to <br> (A) $2^{\mathrm{k}} \mathrm{T}\left(\mathrm{n} / 2^{\mathrm{k}}\right)+\mathrm{kn}$ <br> (B) $2^{\mathrm{k}} \mathrm{T}\left(\mathrm{n}^{\mathrm{k}} / 2\right)+\mathrm{kn}$ <br> (C) $n k T\left(n / 2^{k}\right)$ <br> (D) $\mathrm{T}\left(\mathrm{n} / 2^{\mathrm{k}}\right)+\mathrm{kn}$ | (A) |
| :---: | :---: | :---: | :---: |
| 502 | 2271 | ```What is the output of the following C program? #include<stdio.h> using namespace std; int main() { int x = 5, y = 5, z; x= ++x; y = -- y; z=x + ++x; cout << z; return 0; }``` <br> (A) 11 <br> (B) 12 <br> (C) 13 <br> (D) 14 | (D) |
| 502 | 2272 | What is meaning of following declaration? $\operatorname{int}(* \mathrm{p}[5])()$; <br> (A) p is pointer to function <br> (B) p is array of pointer to function <br> (C) p is pointer to such function which return type is array <br> (D) p is pointer to array of function | (B) |
| 502 | 2273 | ```What is the output of the following C program? #include <iostream> using namespace std; int main() { int arr[] ={4,5,6,7}; int *p=(arr + 1); cout<<<*arr + 9; retum 0; }``` <br> (A) 12 <br> (B) 5 <br> (C) 13 <br> (D) error | (C) |
| 502 | 2274 |  | (C) |


|  |  | What is the output of the following C program? ```#include <iostream> using namespace std; int main() { int const p=5; cout <<++p; retum 0; }``` <br> (A) 5 <br> (B) 6 <br> (C) Error <br> (D) 0 |  |
| :---: | :---: | :---: | :---: |
| 502 | 2275 | What is the output of this C code? ```#include <stdio.h> void main() { int x = 97; char y = x; printf("%cln", y); }``` <br> (A) a <br> (B) c <br> (C) 97 <br> (D) Run time error | (A) |
| 502 | 2276 | How long is an IPv6 address? <br> (A) 32 bits <br> (B) 128 bits <br> (C) 128 bytes <br> (D) 64 bits | (B) |
| 502 | 2277 | What protocols are used to configure trunking on a switch? <br> (A) VLAN Trunking Protocol <br> (B) VLAN <br> (C) 802.1 Q <br> (D) ISL | (B) |
| 502 | 2278 | Which protocol does Ping use? <br> (A) TCP <br> (B) ARP <br> (C) ICMP <br> (D) BootP | (C) |
| 502 | 2279 | Which class of IP address provides a maximum of only 254 host addresses per network ID? <br> (A) Class A <br> (B) Class B <br> (C) Class C | (C) |


|  |  | (D) Class D |  |
| :---: | :---: | :---: | :---: |
| 502 | 2280 | Which of the following syntax is correct for command-line arguments? <br> (A) int main(int var, char * $\operatorname{varg}[]$ ) <br> (B) int main(char *argv[], int argc) <br> (C) int main() \{int argv, char $* \operatorname{argc}[] ;\}$ <br> (D) Both (A) and (B) | (A) |
| 502 | 2281 | Web Crawler is also called as <br> (A) Link Directory <br> (B) Search Optimizer <br> (C) Web Spider <br> (D) Web Manager | (C) |
| 502 | 2282 | What are the different types of real data type in C? <br> (A) float, double <br> (B) float, double, long <br> (C) float, double, long double <br> (D) float, real, double | (C) |
| 502 | 2283 | Value of $a$ in $a=(b=5, b+5)$; is <br> (A) Junk value <br> (B) Syntax error <br> (C) 5 <br> (D) 10 | (B) |
| 502 | 2284 | Which of the following statements is correct? <br> (A) Base class pointer cannot point to derived class <br> (B) Derived class pointer cannot point to base class. <br> (C) Pointer to derived class cannot be created. <br> (D) Pointer to base class cannot be created. | (B) |
| 502 | 2285 | A Neural Network can answer <br> (A) For Loop questions <br> (B) what-if questions <br> (C) IF-The-Else Analysis Questions <br> (D) None of these | (B) |
| 502 | 2286 | What is shallow copy? <br> (A) A shallow copy creates a copy of the dynamically allocated objects too. <br> (B) A shallow copy just copies the values of the data as they are. <br> (C) A shallow copy creates a copy of the statically allocated objects too <br> (D) Both b and c above | (B) |
| 502 | 2287 | A shopkeeper was reported to be selling adulterated mustard oil. Course of Action: I. He should be fined and his | (A) |


|  |  | shop sealed. II.He should be asked to leave the town and open a shop elsewhere. Options: <br> (A) Only I follows <br> (B) Only II follows <br> (C) Either I or II follows <br> (D) Neither I nor II follows |  |
| :---: | :---: | :---: | :---: |
| 502 | 2288 | Which of the following cannot be used with the keyword virtual? <br> (A) class <br> (B) member functions <br> (C) constructor <br> (D) destructor | (C) |
| 502 | 2289 | Say True or false (i) Redefining a function in a friend class is called function overriding while Redefining a function in a derived class is called a overloading (ii) Overloading is a static or compile-time binding and Overriding is dynamic or run- time binding <br> (A) True, True <br> (B) True, False <br> (C) False, True <br> (D) False, false | (B) |
| 502 | 2290 | What is the correct value to return to the operating system upon the successful completion of a program? <br> (A) 1 <br> (B) -1 <br> (C) 0 <br> (D) Program do no return a value | (C) |
| 502 | 2291 | Which of the following devices translates hostnames into IP addresses? <br> (A) DNS Server <br> (B) Hub <br> (C) DHCP Server <br> (D) Firewall | (A) |
| 502 | 2292 | The child process completes execution, but the parent keeps executing, then the child process is known as <br> (A) Orphan <br> (B) Zombie <br> (C) Body <br> (D) Dead | (B) |
| 502 | 2293 | A system program that combines the separately compiled modules of a program into a form suitable for execution <br> (A) Assembler <br> (B) linking loader <br> (C) cross compiler <br> (D) load and go | (B) |
| 502 | 2294 | Which of the following addressing modes, facilitates access to an operand whose location is defined relative to the beginning of the data structure in which it appears? | (C) |


|  |  | (A) register <br> (B) immediate <br> (C) index <br> (D) indirect |  |
| :---: | :---: | :---: | :---: |
| 502 | 2295 | The principle of locality of reference justifies the use of <br> (A) virtual memory <br> (B) interrupts <br> (C) cache memory <br> (D) gates | (C) |
| 502 | 2296 | Thrashing can be avoided if <br> (A) the pages belonging to the working set of the programs are in main memory <br> (B) the speed of CPU is increased <br> (C) the speed of I/O processor is increased <br> (D) virtual memory is used | (A) |
| 502 | 2297 | Which is/are the application(s) of stack? <br> (A) Function calls <br> (B) Large number Arithmetic <br> (C) Evaluation of arithmetic expressions <br> (D) All of the above | (D) |
| 502 | 2298 | The number of possible ordered trees with three nodes $\mathrm{A}, \mathrm{B}, \mathrm{C}$ is? <br> (A) 16 <br> (B) 12 <br> (C) 6 <br> (D) 10 | (B) |
| 502 | 2299 | Which of the following is the internal memory of the CPU? <br> (A) CPU register <br> (B) Cache <br> (C) Main memory <br> (D) All of these | (A) |
| 502 | 2300 | Which of the following devices assigns IP address to devices connected to a network that uses TCP/IP? <br> (A) DHCP Server <br> (B) NIC <br> (C) Gateway <br> (D) Hub | (A) |
| 502 | 2301 | The term TSR is an abbreviation for <br> (A) Terminate Stay Ready <br> (B) Testing System Read | (D) |


|  |  | (C) Terminal Still Ready <br> (D) Terminate Stay Resident |  |
| :---: | :---: | :---: | :---: |
| 502 | 2302 | A process stack does not contain <br> (A) Function parameters <br> (B) Local variables <br> (C) Return addresses <br> (D) PID of child process | (D) |
| 502 | 2303 | Which one of the following is not true? <br> (A) kernel is the program that constitutes the central core of the operating system <br> (B) kernel is the first part of operating system to load into memory during booting <br> (C) kernel is made of various modules which cannot be loaded in running operating system <br> (D) kernel remains in the memory during the entire computer session | (C) |
| 502 | 2304 | When a process communicates with processes in different systems using message based communication, is called <br> (A) Local Procedure Call <br> (B) Inter Process Communication <br> (C) Remote Procedure Call <br> (D) Remote Machine Invocation | (C) |
| 502 | 2305 | Banker's algorithm for resource allocation deals with <br> (A) deadlock prevention <br> (B) deadlock avoidance <br> (C) deadlock recovery <br> (D) mutual exclusion | (B) |
| 502 | 2306 | What is the difference between a declaration and a definition of a variable? <br> (A) Both can occur multiple times, but a declaration must occur first. <br> (B) A definition occurs once, but a declaration may occur many times. <br> (C) Both can occur multiple times, but a definition must occur first. <br> (D) A declaration occurs once, but a definition may occur many times. | (D) |
| 502 | 2307 | Collecting personal information and effectively posing as another individual is known as the crime of <br> (A) spooling <br> (B) identity theft <br> (C) hacking <br> (D) None of the above | (B) |
| 502 | 2308 | Companies use which of the following vendors to provide access to software and services rather than purchasing the applications and maintaining the applications themselves? <br> (A) Open source vendors <br> (B) Alliances <br> (C) Application service providers <br> (D) All of the above | (C) |


| 502 | 2309 | When a computer is first turned on or restarted, a special type of absolute loader is executed called <br> (A) "Compile and GO" loader <br> (B) Boot loader <br> (C) Boot strap loader <br> (D) Relating loader | (C) |
| :---: | :---: | :---: | :---: |
| 502 | 2310 | Which application we will use to make program more portable? <br> (A) Windows API <br> (B) Window App <br> (C) MFC <br> (D) None of these | (A) |
| 502 | 2311 | Relocation bits used by relocating loader are specified by <br> (A) Relocating loader itself <br> (B) Linker <br> (C) Assembler <br> (D) Macro processor | (B) |
| 502 | 2312 | Merge sort uses? <br> (A) Divide and conquer strategy <br> (B) Backtracking approach <br> (C) Heuristic search <br> (D) Greedy approach | (A) |
| 502 | 2313 | Which of the following is a valid IP address? <br> (A) 192.168.111.1111 <br> (B) 192.168.1.1 <br> (C) 192.168.900.1 <br> (D) 192.900.168.1 | (B) |
| 502 | 2314 | The Operating System Manages <br> (A) Processes <br> (B) Memory <br> (C) Disks and I/O devices <br> (D) All of the above | (D) |
| 502 | 2315 | In the Many to Many model when a thread performs a blocking system call <br> (A) other threads are strictly prohibited from running <br> (B) other threads are allowed to run <br> (C) other threads only from other processes are allowed to run <br> (D) all threads are blocked. | (B) |
| 502 | 2316 | If the number of bits in a virtual address of a program is 16 and the page size is 0.5 K bytes, the number of pages in the virtual address space is <br> (A) 16 | (D) |


|  |  | (B) 32 <br> (C) 64 <br> (D) 128 |  |
| :---: | :---: | :---: | :---: |
| 502 | 2317 | disk scheduling algorithm causes the disk arm to move back and forth across the disk surface in order to service all requests in its path <br> (A) FCFS <br> (B) SSTF <br> (C) Scan <br> (D) FIFO | (C) |
| 502 | 2318 | Which of the following statements are true ? I. Shortest remaining time first scheduling may cause starvation II. Preemptive scheduling may cause starvation III. Round robin is better than FCFS in terms of response time <br> (A) I only <br> (B) I and III only <br> (C) II and III only <br> (D) I, II and III | (D) |
| 502 | 2319 | A procedure that calls itself is called <br> (A) Illegal call <br> (B) Reverse polish <br> (C) Recursive <br> (D) None of the above | (C) |
| 502 | 2320 | Which of the following algorithm cannot be desiged without recursion <br> (A) Tower of Hanoi <br> (B) Fibonacci Series <br> (C) Tree Traversal <br> (D) None of the above | (D) |
| 502 | 2321 | Grant and revoke are $\qquad$ statements. <br> (A) DCL <br> (B) DML <br> (C) DDL <br> (D) DRL | (A) |
| 502 | 2322 | Access time is the highest in the case of <br> (A) Floppy disk <br> (B) Cache <br> (C) Swapping devices <br> (D) Magnetic disks | (D) |
| 502 | 2323 | In a paged memory, the page hit ratio is 0.35 . The required to access a page in secondary memory is equal to 100 ns . The time required to access a page in primary memory is 10 ns . The average time required to access a page is <br> (A) 3.0 ns | (C) |


|  |  | (B) 68.0 ns <br> (C) 68.5 ns <br> (D) 78.5 ns |  |
| :---: | :---: | :---: | :---: |
| 502 | 2324 | At a particular time of computation the value of a counting semaphore is 7 . Then 20 P operations and 15 V operations were completed on this semaphore. The resulting value of the semaphore is <br> (A) 42 <br> (B) 2 <br> (C) 7 <br> (D) 12 | (B) |
| 502 | 2325 | For Mutual exclusion to prevail in the system <br> (A) at least one resource must be held in a non sharable mode <br> (B) the processor must be a uniprocessor rather than a multiprocessor <br> (C) there must be at least one resource in a sharable mode <br> (D) A process must be not be holding a resource, but waiting for one to be freed | (A) |
| 502 | 2326 | A system has 12 magnetic tape drives and 3 processes: P0, P1, and P2. Process P0 requires 10 tape drives, P1 requires 4 and P2 requires 9 tape drives. Process P0 is allocated 5 tape drives, P1 is allocated 2 and P2 is allocated 2 tape drives. Which of the following is a safe sequence? <br> (A) P0, P1, P2 <br> (B) P1, P2, P0 <br> (C) P2, P0, P1 <br> (D) P1, P0, P2 | (D) |
| 502 | 2327 | Which of the following is not a property of transactions? <br> (A) Atomicity <br> (B) Concurrency <br> (C) Isolation <br> (D) Durability | (B) |
| 502 | 2328 | Data integrity means that <br> (A) the data contained in database that is non redundant and consistent <br> (B) the data contained in database that is accurate and consistent. <br> (C) the data contained in database that is non-redundant and secured. <br> (D) the data contained in database that is accurate and non-redundant | (B) |
| 502 | 2329 | In SQL the statement select * from $\mathrm{R}, \mathrm{S}$ is equivalent to <br> (A) Select * from R natural join S . <br> (B) Select * from R cross join S . <br> (C) Select * from R outer join S . <br> (D) Select * from R inner join S | (B) |
| 502 | 2330 | Which of the following in true regarding Referential Integrity? <br> (A) Every primary-key value must match a primary-key value in an associated table <br> (B) Every primary-key value must match a foreign-key value in an associated table | (C) |


|  |  | (C) Every foreign-key value must match a primary-key value in an associated table <br> (D) Every foreign-key value must match a foreign-key value in an associated table |  |
| :---: | :---: | :---: | :---: |
| 502 | 2331 | What is the possible relation depicting the relationship of an employee and supervisor: in a relational model? <br> (A) Supervisor (SupervisorID, BirthDate, Salary, Name(FirstName, MiddleName, LastName), Employee(Name)) <br> (B) Supervisor (SupervisorID, BirthDate, Salary, Name(FirstName, MiddleName, LastName), EmpID) <br> (C) Employee (EmpID, BirthDate, Salary, Name(FirstName, MiddleName, LastName), SupervisorID). <br> (D) Employee (EmpID, BirthDate, Salary, Name(FirstName, MiddleName, LastName), Supervisor(Name)) | (C) |
| 502 | 2332 | Which of the following is not a consequence of non-normalized database? <br> (A) Update anomaly <br> (B) insertion anomaly <br> (C) redundancy <br> (D) lost update problem | (D) |
| 502 | 2333 | (SELECT course id FROM SECTION <br> WHERE semester = 'Fall' AND YEAR=2009) <br> EXCEPT <br> (SELECT course id FROM SECTION <br> WHERE semester = 'Spring' AND YEAR=2010); <br> This query displays <br> (A) Only tuples from second part <br> (B) Only tuples from the first part which has the tuples from second part <br> (C) Tuples from both the parts <br> (D) Tuples from first part which do not have second part | (D) |
| 502 | 2334 | $\qquad$ will undo all statements? <br> (A) Redo <br> (B) Flashback <br> (C) Rollback <br> (D) Abort | (B) |
| 502 | 2335 | Which of the following can be a multivalued attribute? <br> (A) Phone_number <br> (B) Name <br> (C) Date_of_birth <br> (D) account_number | (A) |
| 502 | 2336 | Considering pincode attribute in Employee (empcode, name, street, city, state, pincode). Employee is in <br> (A) 1 NF only <br> (B) 2 NF and hence also in 1 NF <br> (C) 3 NF and hence also in 2 NF and 1 NF <br> (D) BCNF and hence also in $3 \mathrm{NF}, 2 \mathrm{NF}$ and 1 NF | (B) |
| 502 | 2337 | If in an ER model, Y is the dominant entity and X is the subordinate entity, which of the following is incorrect? <br> (A) operationally if Y is deleted, so is X | (B) |


|  |  | (B) X existence is dependent on Y <br> (C) Operationally if X is deleted, so is Y <br> (D) Operationally if X is deleted, Y remains the same. |  |
| :---: | :---: | :---: | :---: |
| 502 | 2338 | What is the minimum time complexity of the iterative method used to find the sum of the first n natural numbers? <br> (A) $\mathrm{O}(1)$ <br> (B) $\mathrm{O}(\mathrm{n})$ <br> (C) $\mathrm{O}\left(\mathrm{n}^{2}\right)$ <br> (D) $\mathrm{O}\left(\mathrm{n}^{3}\right)$ | (B) |
| 502 | 2339 | What is the minimum time complexity of the iterative code used to find the smallest and largest element in a linked list? <br> (A) $\mathrm{O}(1)$ <br> (B) $\mathrm{O}(\mathrm{n})$ <br> (C) $\mathrm{O}\left(\mathrm{n}^{2}\right)$ <br> (D) $\mathrm{O}\left(\mathrm{n}^{3}\right)$ | (B) |
| 502 | 2340 | When the Depth First Search of a graph is unique? <br> (A) When the graph is a Binary Tree <br> (B) When the graph is a Linked List <br> (C) When the graph is a n-ary Tree <br> (D) When the graph is bipartite | (B) |
| 502 | 2341 | In simple uniform hashing, what is the search complexity? <br> (A) $\mathrm{O}(\mathrm{n})$ <br> (B) $\mathrm{O}(\log n)$ <br> (C) $\mathrm{O}(\mathrm{n} \log n)$ <br> (D) $\mathrm{O}(1)$ | (D) |
| 502 | 2342 | What is the time complexity when using linked list is used to perform insertion sort on ' $n$ ' elements? <br> (A) $\mathrm{O}(\mathrm{n})$ <br> (B) $\mathrm{O}\left(\mathrm{n}^{2}\right)$ <br> (C) $\mathrm{O}\left(\mathrm{n}^{3}\right)$ <br> (D) $O(n \log n)$ | (B) |
| 502 | 2343 | If each element in lower triangular matrix $(\mathrm{L})$ is a 32-bit signed integer, how much memory would be needed to store all the nonzero elements of matrix L <br> (A) $16\left(n^{2}+n\right)$ bits. <br> (B) $(32 n)$ bits <br> (C) $16\left(\mathrm{n}^{2}\right)$ bits <br> (D) check the key | (A) |
| 502 | 2344 | What is the number of unlabeled simple directed graph that can be made with 1 or 2 vertices? <br> (A) 2 | (B) |


|  |  | (B) 4 <br> (C) 5 <br> (D) 9 |  |
| :---: | :---: | :---: | :---: |
| 502 | 2345 | (A) Syntax error <br> (B) 1020 <br> (C) 2010 <br> (D) 2020 | (C) |
| 502 | 2346 | (A) A B E D C F <br> (B) A B D C F E <br> (C) A B D C F <br> (D) F D C B A | (C) |
| 502 | 2347 | To implement a stack using queue(with only enqueue and dequeue operations), how many queues will you need? <br> (A) 1 <br> (B) 2 <br> (C) 3 <br> (D) 4 | (B) |
| 502 | 2348 | The compiler checks the type of reference in the object and not the type of object in <br> (A) polymorphism <br> (B) inheritance <br> (C) abstraction <br> (D) encapsulation | (A) |
| 502 | 2349 | How do we declare an abstract class? <br> (A) By providing at least one pure virtual method (function signature followed by $==0$;) in a class <br> (B) By declaring at least one method abstract using the keyword 'abstract' in a class <br> (C) By declaring the class abstract with the keyword 'abstract' <br> (D) It is not possible to create abstract classes in $\mathrm{C}++$ | (A) |
| 502 | 2350 | Which of the following functions below can be used to allocate space for array in memory? <br> (A) calloc() <br> (B) malloc() <br> (C) Realloc() <br> (D) Both (A) and (B) | (D) |
| 502 | 2351 | Paint: Artist : : Wood: ? <br> (A) Furniture <br> (B) Forest <br> (C) Fire | (D) |


|  |  | (D) Carpenter |  |
| :---: | :---: | :---: | :---: |
| 502 | 2352 | Which number does not belong in the series below? 2, 5, 10, 17, 26, 37, 50, 64 <br> (A) 17 <br> (B) 37 <br> (C) 64 <br> (D) 26 | (C) |
| 502 | 2353 | Of the following units, which would be most likely to measure the amount of sugar needed in a recipe for 2 dozen cookies? <br> (A) Milliliters <br> (B) Quarts <br> (C) Kilograms <br> (D) Cups | (D) |
| 502 | 2354 | Pick the odd one from the following options. <br> (A) CADBE <br> (B) JHKIL <br> (C) XVYWZ <br> (D) ONPMQ | (D) |
| 502 | 2355 | Given below are the words with different spellings. Select the one which you consider to be correctly spelled. <br> (A) Referigerator <br> (B) Refrigerator <br> (C) Referigrator <br> (D) Refrigrator | (B) |
| 502 | 2356 | A cube is built using 64 cubic blocks of side one unit. After it is built, one cubic block is removed from every corner of the cube. The resulting surface area of the body (in square units) after the removal is <br> (A) 56 <br> (B) 64 <br> (C) 72 <br> (D) 96 | (D) |
| 502 | 2357 | Ramesh ranks 13 th in the class of 33 students. There are 5 students below Suresh rankwise. How many student are there between Ramesh and Suresh? <br> (A) 12 <br> (B) 14 <br> (C) 15 <br> (D) 16 | (B) |
| 502 | 2358 | P can do a work in 30 days and Q in 40 days. If they work on it together for 4 days, then the fraction of the work that is left is <br> (A) $7 / 120$ <br> (B) $7 / 30$ <br> (C) $2 / 3$ | (D) |


|  |  | (D) $23 / 30$ |  |
| :---: | :---: | :---: | :---: |
| 502 | 2359 | Find the match for the missing image. <br> (1) <br> (2) <br> (3) <br> (4) <br> (A) 1 <br> (B) 2 <br> (C) 3 <br> (D) 4 | (A) |
| 502 | 2360 | If in a certain language, SACHIN is coded as RZBGHM, how is ROGER coded in that code? <br> (A) QNFEQ <br> (B) QNEDQ <br> (C) QNFFQ <br> (D) QNFDQ | (D) |
| 502 | 2361 | The salaries A, B, C are in the ratio 2: 3: 5. If the increments of $15 \%, 10 \%$ and $20 \%$ are allowed respectively in their salaries, then what will be new ratio of their salaries? <br> (A) 0.12719907407407 <br> (B) 0.42453703703704 <br> (C) 0.98194444444444 <br> (D) Cannot be determined | (C) |
| 502 | 2362 | What is the next number in the series $8,10,7,9,6,8, \ldots$ <br> (A) 6 <br> (B) 9 <br> (C) 5 <br> (D) 7 | (C) |
| 502 | 2363 | Pointing at a photo, Dinesh said, "His father is only son of my mother." The photo belongs to? <br> (A) Dinesh <br> (B) Dinesh's brother <br> (C) Dinesh's father <br> (D) Dinesh's son | (D) |
| 502 | 2364 |  | (A) |


|  |  | Which number replaces the question mark? <br> (A) 9 <br> (B) 2 <br> (C) 10 <br> (D) 7 |  |
| :---: | :---: | :---: | :---: |
| 502 | 2365 | Given below are two premises, with four conclusions drawn from them (taking singly or together); which conclusions are validly drawn? Select the correct answer from the codes given below : Premises : (i) All bats are mammals. (ii) Birds are not bats. Conclusions : (a) Birds are not mammals. (b) Bats are not birds. (c) All mammals are bats. (d) Some mammals are bats. <br> (A) (a), (b) and (d) <br> (B) (b) and (d) <br> (C) (a) and (c) <br> (D) (b), (c) and (d) | (B) |
| 502 | 2366 | Which number replaces the question mark? <br> (A) 6 <br> (B) 1 <br> (C) 2 <br> (D) 5 | (B) |
| 502 | 2367 | A bag contains 6 black and 8 white balls. One ball is drawn at random. What is the probability that the ball drawn is white? <br> (A) $3 / 4$ <br> (B) $4 / 7$ <br> (C) $1 / 8$ <br> (D) $3 / 7$ | (B) |
| 502 | 2368 | What time should the last watch show? <br> (A) 5:39 <br> (B) $5: 19$ | (B) |


|  |  | (C) 5:09 <br> (D) $4: 59$ |  |
| :---: | :---: | :---: | :---: |
| 502 | 2369 | Free notebooks were distributed equally among children of a class. The number of notebooks each child got was one-eighth of the number of children. Had the number of children been half, each child would have got 16 notebooks. Total how many notebooks were distributed? <br> (A) 256 <br> (B) 432 <br> (C) 512 <br> (D) 640 | (C) |
| 502 | 2370 | **** CASE QN <br> Direction: Answer the following questions based on the following data. <br> WORKFORCE OF COUNTRY X <br> Total Workforce: 140 million people <br> Workforce in the Service Sector by Area and Gender <br> **** CASE QN **** <br> Approximately how many people are in the production and transportation sector of the workforce? <br> (A) 9 million <br> (B) 12 million <br> (C) 21 million <br> (D) 18 million | (C) |
| 502 | 2371 | **** CASE QN **** <br> Direction: Answer the following questions based on the following data. <br> WORKFORCE OF COUNTRY $X$ <br> Total Workforce: 140 million people <br> Workforce in the Service Sector by Area and Gender <br> **** CASE QN **** <br> Approximately what fraction of the workforce in the food service area of the service sector consists of males? <br> (A) $1 / 4$ <br> (B) $1 / 3$ <br> (C) $3 / 7$ <br> (D) $4 / 7$ | (C) |
| 502 | 2372 | **** CASE QN **** | (A) |


|  |  | Direction：Answer the following questions based on the following data． <br> WORKFORCE OF COUNTRY $X$ <br> Total Workforce： 140 million people <br> Workforce in the Service Sector by Area and Gender <br> ＊＊＊＊CASE QN＊＊＊＊ <br> In the workforce，the ratio of the number of males to the number of females is the same for the sales sector as it is for the protective service area of the service sector．Which of the following is closest to the number of females in the sales sector？ <br> （A） 2.9 million <br> （B） 3.6 million <br> （C） 10.4 million <br> （D） 11.1 million |  |
| :---: | :---: | :---: | :---: |
| 502 | 2373 | A train running at the speed of $60 \mathrm{~km} / \mathrm{hr}$ crosses a pole in 9 seconds．What is the length of the train？ <br> （A） 120 meters <br> （B） 180 meters <br> （C） 320 meters <br> （D） 150 meters | （D） |
| 502 | 2374 | Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds．The ratio of their speeds is <br> （A） $2: 1$ <br> （B） $3: 2$ <br> （C） $3: 4$ <br> （D） $4: 3$ | （B） |
| 502 | 2375 | $A$ and $B$ together have Rs．1210．If $\frac{4}{15}$ of $A^{\prime}$ s amount is equal to $\frac{2}{5}$ of B＇s amount，how much amount does B have？ <br> （A）Rs． 460 <br> （B）Rs． 484 <br> （C）Rs 550 <br> （D）Rs． 664 | （B） |
| 502 | 2376 | Choose the altemative which is closely resembles the mirror image of the given combination． <br> ANS43Q12 <br> （1）АИटमعดトS <br> （2）Sト๑عम <br> （3）乙ИАعAФS <br> （4）ト SดคعАИ己 <br> （A） 1 <br> （B） 2 <br> （C） 3 <br> （D） 4 | （B） |


| 502 | 2377 | What is probability of drawing two clubs from a well shuffled pack of 52 cards? <br> (A) $13 / 51$ <br> (B) $1 / 17$ <br> (C) $1 / 26$ <br> (D) $13 / 17$ | (B) |
| :---: | :---: | :---: | :---: |
| 502 | 2378 | Look at this series: $1.5,2.3,3.1,3.9, \ldots$ What number should come next? <br> (A) 4.2 <br> (B) 4.4 <br> (C) 4.7 <br> (D) 5.1 | (C) |
| 502 | 2379 | Three unbiased coins are tossed. What is the probability of getting at least 2 tails? <br> (A) 0.75 <br> (B) 0.5 <br> (C) 0.25 <br> (D) 0.2 | (B) |
| 502 | 2380 | Look at this series: $22,21,23,22,24,23, \ldots$ What number should come next? <br> (A) 22 <br> (B) 24 <br> (C) 25 <br> (D) 26 | (C) |
| 502 | 2381 | If 'x'means 'added to' ' - 'means 'multiplied by'; '+'means 'subtracted from' and '-' means 'divided by', then simplify $24+36-12 \times 8 \div 4=$ ? <br> (A) 36 <br> (B) 53 <br> (C) 5 <br> (D) 20 | (B) |
| 502 | 2382 | FOX : CUNNING :: RABBIT : ? <br> (A) Courageous <br> (B) Dangerous <br> (C) Timid <br> (D) Ferocious | (A) |
| 502 | 2383 |  | (A) |


|  |  | The Diagrams below represents a class of children. $G$ is the set of girls and $F$ the set of children who like fencing. The shading in which diagram represents boys who like fencing? <br> Diagram A <br> Diagram C <br> Diagram B <br> Diagram D <br> (A) Diagram A <br> (B) Diagram B <br> (C) Diagram C <br> (D) Diagram D |  |
| :---: | :---: | :---: | :---: |
| 502 | 2384 | Ice : Coolness : : Earth : ? <br> (A) Ocean <br> (B) Forest <br> (C) Weight <br> (D) Gravitation | (D) |
| 502 | 2385 | A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum? <br> (A) Rs. 4462.50 <br> (B) Rs. 8032.50 <br> (C) Rs. 8900 <br> (D) Rs. 8925 | (D) |
| 502 | 2386 | Find the missing from the below given options <br> A <br> B <br> C <br> D <br> (A) A <br> (B) B <br> (C) C <br> (D) D | (B) |
| 502 | 2387 | The width of a rectangular hall is of its length. If the area of the hall is 450 sq.m, what is the difference between its length and breadth? <br> (A) 8 m <br> (B) 10 m | (D) |


|  |  | (C) 12 m <br> (D) 15 m |  |
| :---: | :---: | :---: | :---: |
| 502 | 2388 | A trader mixes 26 kg of rice at Rs. 20 per kg with 30 kg of rice of other variety at Rs .36 per kg and sells the mixture at Rs. 30 per kg. His profit percent is: <br> (A) No profit, no loss <br> (B) 0.08 <br> (C) 0.05 <br> (D) 0.1 | (C) |
| 502 | 2389 | There are 28 stations between Ernakulam and Chennai. How many second class tickets have to be printed, so that a passenger can travel from one station to any other station? <br> (A) 800 <br> (B) 820 <br> (C) 850 <br> (D) 870 | (D) |
| 502 | 2390 | A clock is started at noon. By 10 minutes past 5, the hour hand has turned through: <br> (A) 155 <br> (B) 150 <br> (C) 145 <br> (D) 160 | (C) |
| 502 | 2391 | In how many ways can a committee consisting of 4 men and 5 women be formed from a group of 7 men and 9 women? <br> (A) ${ }^{7} \mathrm{C}_{4} \diamond{ }^{9} \mathrm{C}_{5}$ <br> (B) ${ }^{4} \mathrm{C}_{7} \diamond^{5} \mathrm{C}_{9}$ <br> (C) ${ }^{7} \mathrm{C} 5{ }^{9} \mathrm{C}_{4}$ <br> (D) ${ }^{9} \mathrm{C}_{4}-{ }^{7} \mathrm{C}_{5}$ | (A) |
| 502 | 2392 | If BOY is coded as ACNPXZ. What will be the code for LIFE? <br> (A) KMHJEGDF <br> (B) LMGHEGDF <br> (C) LMHJGEFD <br> (D) None of these | (A) |
| 502 | 2393 | Two ships are sailing in the sea on the two sides of a lighthouse. The angle of elevation of the top of the lighthouse is observed from the ships are $30 \geqslant$ and $45 \geqslant$ respectively. If the lighthouse is 100 m high, the distance between the two ships is <br> (A) 173 m <br> (B) 200 m <br> (C) 273 m <br> (D) 300 m | (C) |
| 502 | 2394 | The Look at this series: $53,53,40,40,27,27, \ldots$ What number should come next? <br> (A) 12 | (B) |


|  |  | (B) 14 <br> (C) 27 <br> (D) 53 |  |
| :---: | :---: | :---: | :---: |
| 502 | 2395 | $(51+52+53+\ldots \ldots \ldots+100)$ is equal to <br> (A) 2525 <br> (B) 2975 <br> (C) 3225 <br> (D) 3775 | (D) |
| 502 | 2396 |  common $\geqslant$ difference $\rangle$ is $\langle$. <br> (A) 45 <br> (B) 38 <br> (C) 44 <br> (D) 40 | (C) |
| 502 | 2397 | If $a^{x}=b^{y}$, then <br> (A) $\log a / b=x / y$ <br> (B) $\log a / \log b=x / y$ <br> (C) $\log a / \log b=y / x \geqslant \gg$ <br> (D) $\log b / a=x / y$ | (B) |
| 502 | 2398 | Raju who is facing east, turns $100^{\circ}$ in the anti-clock-wise direction and then $145^{\circ}$ in the clock-wise direction. Which direction is he facing now? <br> (A) South-East <br> (B) South <br> (C) North-West <br> (D) West | (A) |
| 502 | 2399 | A monkey starts climbing up a tree 20ft. tall. Each hour, it hops 3 ft . and slips back 2 ft . How much time would it take the monkey to reach the top? <br> (A) 21 hours <br> (B) 12 hours <br> (C) 18 hours <br> (D) 15 hours | (C) |
| 502 | 2400 | Introducing a man to her husband, a woman said, "His brother's father is the only son of my grandfather." How is the woman related to this man? <br> (A) Mother <br> (B) Aunt <br> (C) Sister <br> (D) Daughter | (C) |

