



Subject Code :- **21019**
વિષય કોડ

Que. Paper Series
પ્રશ્નપુસ્તિકા કોડ

Computer Science (Science)

1202297332

Candidate's Roll No.



Time : 1 Hours
Total Ques. : 50
Total Marks : 50

Supervisor's Signature

Instructions to Candidates / ઉમેદવારોને સૂચના

Do not open the Question Booklet until ask to do so.

- (1) There are 50 questions in the Test Booklet. The answer of each question is any one out of A, B, C and D. Four alternatives are given with the question. You have to answer all the questions.
- (2) Each correct answer carries (1)one mark. For each wrong multiple answer for each question will be treated as wrong. No negative marking for wrong answer.
- (3) You have to answer on the OMR Sheet is given separately to you. For example : Which State of India has the longest Sea Coast ?
(A) Maharashtra (B) Tamil Nadu
(C) Gujarat (D) Andra Pradesh
In OMR Answer Sheet :
(A) (B) (C) (D)
The true answer is "C". Hence circle of "C" is blackened (encode).
- (4) Don't write anything on the Test Booklet.
- (5) Use **blue/black inked ballpoint pen** for filling responses in the OMR Answer Sheet. Any other ink, pen or Pencil is strictly prohibited.
- (6) During exam from candidate, if any false matter, guide, cheats, slips, any handwritten material, any printed material, mobile phone, pager, calculator or any electronic equipments are found he/she will be disqualified.
- (7) Gossips, making noise or disobeying instructions given by Invigilator will be considered disobedience.
- (8) Do Rough Work on last page.

- (1) આ પ્રશ્નપુસ્તિકામાં કુલ 50 પ્રશ્નો છે. પ્રત્યેક પ્રશ્નનો સાચો ઉત્તર A, B, C અને D પૈકી કોઈ એક છે. પ્રશ્નની સાથે જ ચારેય વિકલ્પો આપવામાં આવેલા છે. તમારે બધા જ પ્રશ્નોના ઉત્તર આપવાના છે. પ્રત્યેક પ્રશ્નના સાચા ઉત્તર માટે 1(એક) ગુણ છે. એક કરતા વધુ વિકલ્પ ઝાડ કરનાર જવાબને ખોટો ગણવામાં આવશે. ખોટા જવાબ માટે કોઈ ગુણ કપાત થશે નહીં.
- (2) ઉત્તર આપવા માટે અલગ ઉત્તરવહી (OMR SHEET) આપી છે. ઉત્તર નીચેના ઉદાહરણ પ્રમાણે આપવાના છે. ભારતનું કયું રાજ્ય સૌથી લાંબો દરિયા-કિનારો ધરાવે છે ?
(A) મહારાષ્ટ્ર (B) તામિલનાડુ
(C) ગુજરાત (D) આંધ્રપ્રદેશ
ઉત્તરવહી (OMR SHEET)માં
(A) (B) (C) (D)
ઉપરોક્ત પ્રશ્નનો સાચો ઉત્તર "C" છે. આથી "C"નું વર્તુળ કાળું (encode) કરેલ છે.
- (3) આ પ્રશ્નપુસ્તિકામાં કશું જ લખવાનું નથી.
- (4) ઉત્તરવહીમાં ઉત્તરો વાદળી / કાળી શાહીની બોલપોઈન્ટ પેનથી આપવાનાં છે. અન્ય શાહી, પેન કે પેન્સિલનો ઉપયોગ કરી શકાશે નહીં.
- (5) પરીક્ષા દરમિયાન ઉમેદવાર પાસેથી કોઈ પણ સાહિત્ય, ગાઈડ, માર્ગદર્શિકા, કાપડી, સ્લીપો, અન્ય હસ્તલિખિત કે પ્રિન્ટેડ સાહિત્ય, મોબાઈલ ફોન, પેજર, કેલ્ક્યુલેટર કે અન્ય વીજાણુ ઉપકરણો હોવાનું જણાશે તો ઉમેદવારને ગેરલાયક ગણવામાં આવશે.
- (6) ચાલુ પરીક્ષા દરમિયાન અંદરોઅંદર ગુસ્સાપુસ કરવી, અવાજ કરવો કે નિરીક્ષકની સૂચનાઓનું ઉલ્લંઘન કરવું તે ગેરશિસ્ત ગણાશે.
- (7) રફકામ છેલ્લાં પેજ પર કરવું.

ઉત્તરવહી (OMR Answer sheet) બે પ્રતમાં છે. પરીક્ષા પૂરી થયા બાદ ઉત્તરવહી (OMR Answer Sheet)ની પ્રથમ સ્કેનીંગ પ્રત (Scanning Copy) વર્ગ નિરીક્ષકને પરત કર્યા બાદ જ વર્ગખંડ છોડવાનો રહેશે. તેમ કરવામાં કસૂર થયેથી શિસ્તભંગનાં પગલાં ગણી પરીક્ષા માટે જે તે ઉમેદવારને ગેરલાયક ઠેરવવામાં આવશે. બીજી ઉમેદવાર પ્રત (Candidate Copy) ઉમેદવાર સાથે લઈ જઈ શકશે. પ્રશ્નપુસ્તિકા અને બીજી પ્રત ઉમેદવાર પોતાની જોડે લઈ જઈ શકશે.

- 1 If in order = EDFBGAIJHCI and pre order = ABDEFGCHJI, the root is
(A) A (B) B
(C) I (D) J
- 2 Which of the following is required to create responsive website that looks good on differently sized screens?
(A) JavaScript (B) Bootstrap
(C) CSS (D) JQuery
- 3 The _____ is a program that resolves external references
(A) Operating System (B) Compiler
(C) Linker (D) Loader
- 4 A relation schema R is in _____ if every non-prime attribute A in R is fully functionally dependent on the primary key.
(A) 1NF (B) 2NF
(C) 3NF (D) BCNF
- 5 What is the output of the following 'C' program?
main() { int a=3, b; b=a++ + ++a; printf("\na=%d b=%d",a,b)
(A) a=3 b=5 (B) a=5 b=8
(C) a=6 b=8 (D) None of these
- 6 Which of the following software model is used now a days by most of the software company for software development?
(A) COCOMO (B) Waterfall
(C) Prototype (D) Agile
- 7 The IP address _____ is used by hosts when they are being booted.
(A) 0.0.0.0 (B) 1.1.1.1
(C) 1.0.0.0 (D) 255.255.255.255
- 8 Which of the following is not an application of stack data structure?
(A) Sorting (B) Recursion
(C) Backtracking (D) Expression Evaluation
- 9 _____ is a technique of improving the priority of process waiting in queue for CPU allocation.
(A) Starvation (B) Relocation
(C) Revocation (D) Aging
- 10 The IEEE single-precision and double-precision format to represent floating-point numbers, has a length of _____ and _____ respectively.
(A) 8 bits and 16 bits (B) 16 bits and 32 bits
(C) 32 bits and 64 bits (D) 64 bits and 128 bits

- 11 Which of the following protocol is used for transforming electronic mail messages from one machine to another?
 (A) IP (B) FTP
 (C) SMTP (D) SNMP
- 12 How many physical channels are required to link all the devices in a fully connected mesh network with n devices?
 (A) $2n$ (B) $2n + 1$
 (C) $n(n-1)/2$ (D) $n(n+1)/2$
- 13 Which of the following error, a compiler can check ?
 (A) Syntax error (B) Logical error
 (C) Both Syntax and Logical Errors (D) None of these
- 14 the complexity of an algorithm to remove an element from the beginning of the linked list is _____
 (A) $O(1)$ (B) $O(n)$
 (C) $O(n \log n)$ (D) $O(n^2)$
- 15 Which of the following is a dynamic routing algorithm?
 (A) Flooding (B) Shortest Path
 (C) Distance Vector (D) None of these
- 16 Which of the following is not an example of NoSQL data system?
 (A) MySQL (B) Mongo DB
 (C) Cassandra (D) Redis
- 17 Which of the following flip-flop suffers from the problem of race condition?
 (A) D (B) JK
 (C) RS (D) None of these
- 18 The _____ is an access path mechanism that improves the speed of data retrieval in a database system.
 (A) Primary key (B) View
 (C) Index (D) Sequence
- 19 (2,4) is a point on a circle that has centre at the origin. Which of the following point(s) is/are also on circle?
 (A) Only (2, -4) (B) Only (-2, 4)
 (C) Only (-2, -4) (D) All of these
- 20 The full form of ODBC is _____
 (A) Object Database Connectivity
 (B) Oral Database Connectivity
 (C) Open Database Connectivity
 (D) Oracle Database Connectivity

- 21 The number of interchanges required to sort 5, 1, 6, 2 and 4 in ascending order using bubble sort is ____
- (A) 5 (B) 6
(C) 7 (D) 8
- 22 What is the extension of the file generated when the Java source code is compiled?
- (A) .class (B) .java
(C) .com (D) .exe
- 23 Which of the following is a page replacement algorithm in operating systems?
- (A) SJF (B) LRU
(C) SRTF (D) LIFO
- 24 In relational database, a referential integrity constraint is specified with the help of ____.
- (A) Primary key
(B) Foreign key
(C) Unique key
(D) Composite key
- 25 The OLX is an example of ____ e-commerce model.
- (A) B2B (B) B2C
(C) C2C (D) C2G
- 26 Which of the following register is used to keep track of address of the memory location where the next instruction to be executed is located ?
- (A) Index (B) Program Counter
(C) Base Pointer (D) Stack Pointer
- 27 The ____ tree traversal of Binary Search Tree gives data element sorted in an ascending order.
- (A) Pre-order (B) In-order
(C) Post-order (D) Out-order

- 28 Which of the following operator cannot be overloaded?
(A) ~ (B) ++
(C) :: (D) ()
- 29 The _____ is a program that transfers the program from disk into memory.
(A) Linker
(B) Loader
(C) Compiler
(D) Operating System
- 30 In classful addressing, an IP address 123.23.156.4 belongs to _____ class format.
(A) D (B) C
(C) B (D) A
- 31 Repository of information gathered from multiple sources, storing under unified scheme at a single site is called as _____
(A) Database
(B) Metadata
(C) Data Mining
(D) Data Warehousing
- 32 The first part of a machine language instruction that specifies the operation to be performed is called a(n) _____
(A) Opcode
(B) Mnemonic
(C) Interrupt
(D) Instruction cycle
- 33 The _____ command is an example of DDL.
(A) SELECT (B) GRANT
(C) TRUNCATE (D) COMMIT
- 34 A _____ is executed automatically when an object goes out of scope.
(A) Constructor (B) Destructor
(C) Garbage Collector (D) Auto-call

- 35 The speed of access to data is maximum when data is stored in _____.
(A) Disk (B) Register
(C) Main memory (D) Cache memory
- 36 When a mobile telephone physically moves from one cell to another cell, the base station transfers ownership to the cell getting strongest signal. The process is known as _____.
(A) Handoff
(B) Mobile Switching
(C) Mobile Routing
(D) Cell Switching
- 37 The _____ is connectionless and unreliable protocol.
(A) TCP (B) FTP
(C) UDP (D) None of these
- 38 A _____ is special software for retrieving, presenting and traversing information resources on the World Wide Web.
(A) Web server
(B) Web site
(C) Web browser
(D) Search engine
- 39 The testing technique that considers the internal logic of the module while developing test cases is called _____.
(A) White Box Testing
(B) Black Box Testing
(C) Red Box Testing
(D) Regression Testing
- 40 If a 3-input NAND gate has eight input possibilities, how many of those possibilities will result in high output ?
(A) 1 (B) 4
(C) 7 (D) 8

- 41 In which addressing mode the operand is given explicitly in the instruction?
 (A) Direct (B) Indirect
 (C) Immediate (D) Absolute
- 42 The postfix expression for $*+a\ b -\ c\ d$ is _____.
 (A) $a\ b +\ c\ d -\ *$ (B) $a\ b\ c\ d + - *$
 (C) $a\ b +\ c\ d * -$ (D) $a\ b + -\ c\ d *$
- 43 Google Chrome is an example of:
 (A) Web browser (B) Search Engine
 (C) Operating System (D) None of these
- 44 What is Octal equivalent of 1010011.111011?
 (A) 123.32 (B) 122.73
 (C) 123.73 (D) 121.73
- 45 The following sequence of operation is performed on stack : push (1), push (2), pop, push (1), push (2) pop, pop, pop push (2) pop. The sequence of popped out values are _____.
 (A) 2, 2, 1, 2, 2 (B) 2, 1, 2, 2, 1
 (C) 2, 2, 2, 2, 1 (D) 2, 2, 1, 1, 2
- 46 _____ is a template that specifies common behaviour and properties for a group of similar objects.
 (A) Class (B) Object
 (C) Constructor (D) Destructor
- 47 In C++, by default, functions and data declared within a class are _____ to that class.
 (A) Internal (B) Protected
 (C) Private (D) Public
- 48 The language used by application programs to request data from the DBMS is referred to as:
 (A) Query Language (B) Data Definition Language
 (C) Data Manipulation Language (D) Data Transaction Language
- 49 Which layer of OSI reference model is associated with process to process communication?
 (A) Physical (B) Data Link
 (C) Network (D) Transport
- 50 A Simple graph G with n-vertices is connected if the graph has _____.
 (A) exactly $(n-1)(n-2)/2$ edges (B) exactly $(n+1)(n+2)/2$ edges
 (C) less than $(n-1)(n-2)/2$ edges (D) more than $(n-1)(n-2)/2$ edges

SPACE FOR ROUGH WORK



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