# ATOMIC ENERGY EDUCATION SOCIETY
Anushaktinagar, Mumbai-400 094

## 2015 – Open Candidates Examination

Post – PGT (Computer Science)                    Date – 27.09.2015

Time – 1 Hour 30 Minutes                    Maximum Marks – 50

## Instructions

1. There are 50 Multiple Choice Questions (MCQ) in this paper. Each question carries 1 mark. There will be negative marking of 0.25 per wrong answer.
2. Answer should be darkened/marked in the OMR answer sheet only.
3. Use of any electronic gadget (e.g. calculator, mobile phone, etc.) is not permitted, in the examination hall.
4. In case a candidate has not signed the Attendance Sheet or the OMR Answer Sheet is not signed by the Invigilator, it will be dealt with as a case of unfair means.
5. On completion of the test, the candidates MUST HAND OVER THE OMR ANSWER SHEET AND QUESTION PAPER TO THE INVIGILATOR in the room/hall.
6. The candidates should ensure that the OMR answer sheet is not folded or damaged.

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### To be filled by the candidate

Name of the Candidate: _____

Roll Number: _____

OMR Number: _____

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**No of printed pages –9**

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**2015-Open Candidates- PGT (Computer Science) – QP**

Q.1) A flip flop can store

A) one bit of data

B) two bits of data

C) three bits of data

D) n bits of data

Q.2) Which gate does this truth table mentioned below indicate?

| A | B | X |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

A) NAND

B) NOR

C) XOR

D) XAND

Q.3) RAID1 data that is distributed across the drives consists of

A) striping, without mirroring or parity

B) mirroring, without parity or striping

C) mirroring, parity without striping

D) striping, parity without mirroring

Q.4) Windows 7 and Mac OS X, In computing uses the method of scheduling is called

A) Cooperative scheduling

B) Multilevel queue scheduling

C) Multilevel feedback queue scheduling

D) Round robin scheduling

Q.5) Public key encryption involves the use of

A) one key

B) two key

C) hash key

D) hash function

Q.6) The interval between the time of submission and completion of the job is called

A) Waiting time

B) turnaround time

C) throughput

D) response time

Q.7) The technique of removing inactive programs from the memory of computer system is

A) Semaphore

B) Scheduler

C) Spooling

D) Swapping

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Q.8) How many distinguished permutation can be generated from word "ACCESS"?

    A) 720                           B) 180

    C) 240                           D) 120

Q.9) An equivalence relation is a relation which is

    A) reflexive and symmetric           B) symmetric and transitive

    C) reflexive and transitive            D) reflexive, symmetric and transitive

Q.10) A simple graph in which there exist an edge between every pair of vertices's is called

    A) Regular graph                  B) Planar graph

    C) Euler graph                     D) Complete Graph

Q.11) A graph is a tree, if and only if it

    A) is completely connected          B) is minimally connected

    C) contains a circuit              D) is planar

Q.12) In a directed graph, if there is a path from a to b and from b to a whenever a and b are vertices in graph is called

    A) Complete graph              B) Bipartite graph

    C) Strongly connected graph       D) Edge connected graph

Q.13) A tree with n nodes has

    A) n-1 edges                     B) n/2 edges

    C) n edges                      D) n + 1 edges

Q.14) The language accepted by finite automata is

    A) Context free                   B) Regular

    C) Non-Regular                   D) Context Sensitive

Q.15) In Chomsky classification of grammar, type 2 grammar is

    A) Formal grammar              B) Context sensitive grammar

    C) Context free grammar         D) Regular grammar

Q.16) Which of the following sorting algorithm is of divide and conquer type?

    A) Bubble sort                   B) Insertion sort

    C) Quick sort                    D) Merge sort

Q.17) The complexity of linear search algorithm is

    A) $O(n)$

    B) $O(\log n)$

    C) $O(n^2)$

    D) $O(n \log n)$

Q.18) In OSI which layer manages Token Management?

    A) Network Layer

    B) Session Layer

    C) Transport Layer

    D) Data Link Layer

Q.19) Transport Layer Security (TLS) and Secure Socket Layer (SSL) works at which of the following Layer?

    A) Application Layer

    B) Transport Layer

    C) Network Layer

    D) Data Link Layer

Q.20) In LAN switching prioritize data traffic by application can be achieved using

    A) Layer 2 switch

    B) Layer 3 switch

    C) Layer 3 and Layer 4 switch

    D) Layer 4 switch

Q.21) What is MAC address ?

    A) It is the network layer address of a network interface card that cannot be modified

    B) It is the network layer address of a network interface card that can be modified

    C) It is the data link layer address of a network interface card that cannot be modified

    D) It is the data link layer address of a network interface card that can be modified

Q.22) Which of the protocol is used for remote terminal connection service ?

    A) TELNET

    B) FTP

    C) UDP

    D) HTTP

Q.23) Which of the following network uses software to establish a secure channel on the Internet for transmitting data?

    A) Wireless Network

    B) Secure public network

    C) Virtual Public network

    D) Virtual Private network

Q.24) The IP address 124.168.192.254 is in

    A) Class A

    B) Class B

    C) Class C

    D) Class D

Q.25) IP V6 has _____ address.

    A) 32 Bit

    C) 128 Bit

    B) 64 Bit

    D) variable

Q.26) Which of the following TCP/IP protocols is used for transferring electronic mail messages from server to mail clients ?

    A) FTP

    C) POP

    B) SMTP

    D) IMAP

Q.27) In Software Engineering / Development SRS stands for

    A) Software Requirement Specification

    C) System Requirement Specification

    B) Software Requirement Solution

    D) Software Requirement System

Q.28) Which of the following below refers to maintaining and assuring the accuracy and consistency of data over its entire life-cycle?

    A) Data Constrain

    C) Data Integrity

    B) Data Independence

    D) Data Security

Q.29) In software development life cycle models which model having analysis, design, implementation and testing iterates during the system development?

    A) Build and fix model

    C) Spiral life cycle model

    B) Iterative enhancement life cycle

    D) Waterfall Model

Q.30) What does the following shape (Ellipse with underline) notion in E-R diagram is called?

    A) Key Attribute

    C) Derived Attribute

    B) Composite Attribute

    D) Multivalued Attribute

Q.31) Which of the following unix / linux command is used for search text within files in command line?

    A) as

    C) find

    B) catch

    D) grep

Q.32) Which of the following is not derivative data type in C?

    A) Function               B) Pointer

    C) Enumeration          D) Array

Q.33) In C programming a variable which is visible only in the function in which it is defined, is called?

    A) Static Variable          B) Auto Variable

    C) External Variable        D) Local Variable

Q.34) What would be the output of the C program?

```
#include <stdio.h>
{
  int i = 0;
  for (;i<=5;i++);
    printf("%d",i);
  return 0;
}
```

    A) 5                B) 6

    C) 0,1,2,3,4,5        D) 1,2,3,4,5

Q 35) What would be the output for the following C program fragment?

```
x = 5
y = x ++
printf("%d %d, x, y)
```

    A) 5, 7            B) 7, 5

    C) 6, 6            D) 6, 5

Q.36) In C Program, the output of the following given program is

```
int i
main ()
{
        printf("%d",i)
}
```

A) 0                                          B) 1

C) -1                                         D) null

Q.37) In C program, the output of the value x is

```
main()
{
  int x;
  x = 3*4%5;
  printf("x=%d", x)
}
```

A) 1.9                                        B) 2

C) 2.3                                        D) 5

Q.38) When a subclass is inherited from a super class, which itself inherited from a super class, then such inheritance is called ?

A) Single inheritance                         B) Multiple inheritance

C) Hierarchical inheritance                   D) Multilevel inheritance

Q.39) The keyword used to define structure in C++ is

A) stru                                       B) stt

C) struct                                     D) structure

Q.40) What is tuple in RDBMS?

A) name for table in RDBMS

B) name for the key linking different tables in the database

C) a row or record in a database table

D) an attribute attached to a record

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Q.41) A lack of normalization can lead to which one of the following?

    A) Insertion Problems

    B) Deadlock

    C) Lost Updates

    D) Deferred updates

Q.42) If every non-key attribute is functionally dependent of the primary key, then the relation will be in

    A. First Normal Form

    B. Second Normal Form

    C. Third Normal Form

    D. Fourth Normal Form

Q.43) In database transaction property, If it ensures that either all the operations of the transactions are reflected properly in the database or none should is called

    A) Atomicity

    B) Consistency

    C) Isolation

    D) Durability

Q.44) Locking was introduced to the Database so that

    A) keys can be provided to maintain security

    B) all simultaneous transactions are prevented

    C) passwords can be provided to maintain security

    D) consistency can be enforced

Q.45) The statement in SQL which allows to change the definition of the table is

    A) ALTER

    B) CREATE

    C) SELECT

    D) UPDATE

Q.46) Which SQL statement is used to return only different values from the table?

    A) SELECT DIFFERENT

    B) SELECT DISTINCT

    C) SELECT UNIQUE

    D) SELECT

Q.47) Which is the correct order if all the six clauses given below appear in the query?

    A) SELECT, FROM, WHERE, GROUP BY, HAVING, ORDER BY

    B) SELECT, FROM, WHERE, ORDER BY, HAVING, GROUP BY

    C) SELECT, FROM, WHERE, HAVING, ORDER BY, GROUP BY

    D) SELECT, FROM, WHERE, HAVING, GROUP BY, ORDER BY

Q.48) In Web page designing / programming, CSS is an acronym for

    A) Cascading Style Sheet                  B) Color Style Sheet

    C) Cascading System Sheet            D) Color Scheme Sheet

Q.49) LDAP stands for

    A) Lightweight Data Access Protocol

    B) Lightweight Directory Access Protocol

    C) Large Data Access Protocol

    D) Large Directory Access Protocol

Q.50) Apache Tomcat is a

    A) Applet                        B) Java Program

    C) Servlet                     D) Web Server

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# OPEN ADVERTISEMENT CANDIDATE EXAM-2015

## PGT (Computer Science)

Answer Keys

| | |
|---|---|
| 1. A | 26. B |
| 2. C | 27. A |
| 3. B | 28. C |
| 4. C | 29. C |
| 5. B | 30. A |
| 6. B | 31. D |
| 7. D | 32. C |
| 8. B | 33. D |
| 9. D | 34. B |
| 10. D | 35. D |
| 11. B | 36. A |
| 12. C | 37. B |
| 13. A | 38. D |
| 14. B | 39. C |
| 15. C | 40. C |
| 16. C | 41. D |
| 17. A | 42. C |
| 18. B | 43. A |
| 19. A | 44. D |
| 20. D | 45. A |
| 21. C | 46. B |
| 22. A | 47. A |
| 23. D | 48. A |
| 24. A | 49. B |
| 25. C | 50. D |