

**Academic Year 2014-2015  
Questions & Answers**

**1.In the given figure, PA and PB are tangents to the circle at A and B respectively and the chord BC is parallel to tangent PA. If AC = 6 cm, and length of the tangent AP is 9 cm, then what is the length of the chord BC?**

- 1. 4 cm
- 2. 8 cm
- 3. 6 cm
- 4. 5 cm

**2 Union Information and Broadcasting ministry recently gave an indication to change which of the following laws on a larger scale, as the existing provisions of the Act are inadequate to cater to the phenomenal growth of the print media in view the liberalization of the government policies?**

- 1. Press & Registration of Books Act, (PRB Act) 1867
- 2. The Delivery Of Books „And Newspapers“ (Public Libraries) Act, 1954
- 3. Indian Press (Emergency Powers ) Act 1931
- 4. none

**3.Which password package should you install to ensure that the central password file couldn't be stolen easily?**

- A) PAM
- B) tcp\_wrappers
- C) shadow
- D) securepass
- E) ssh

**4. A frog starts climbing 15 feet wall. Each hour he climbs 3 feet and rests for 30 minutes. During rest, he slips back 2 feet.How many hours does the frog take to reach the top?**

Ans:19 hours

**5.What do u meant by "SBI" of an object?**

Ans.SBI stands for State, Behavior and Identity.

**6.If three babies are born every second of the day, then how many babies will be born in the year 2001?**

Ans.9,46,08,000 babies

**7.What is Beaoning?**

Ans. The process that allows a network to self-repair networks problems. The stations on the network notify the other stations on the ring when they are not receiving the transmissions. Beaoning is used in Token ring and FDDI networks.

**8.A tank can be filled by pipe A in 30 minutes and by pipe B in 24 minutes. Outlet pipe C can empty the full tank in X minutes.**

## **TechQuiz @ IICMR-MCA**

**If the tank is empty initially and if all the three pipes A, B and C are opened simultaneously, the tank will NEVER be full. Give the maximal possible value of X.**

Ans. The maximum possible value of X is 13 minutes 20

seconds. In one minute,

pipe A can fill  $1/30$  part of the tank. pipe B can fill  $1/24$  part of the tank.

Thus, the net water level increase in one minute is

$$\begin{aligned} &= 1/30 + 1/24 \\ &= 3/40 \text{ part of the tank} \end{aligned}$$

**9.What type of server is used to remotely assign IP addresses to machines during the installation process?**

- A) SMB B) NFS C) DHCP D) FT E) HTTP

**10.Sam and Mala have a conversation. Sam says I am certainly not over 40 Mala Says I am 38 and you are at least 5 years older than me · Now Sam says you are at least 39 all the statements by the two are false. How old are they really?**

1. Mala = 38 yrs, Sam = 31 yrs.
2. **Mala = 38 yrs, Sam = 41 yrs**
3. Mala = 31 yrs, Sam = 41 yrs.
4. Mala = 45yrs, Sam = 41 yrs

**11.. What is the code name for Windows Vista?**

1. Longhorn
2. Longhund
3. Stackspray
4. Pearl

**12. Which partitioning tool is available in all distributions?**

- A) Disk Druid B) fdisk C) Partition Magic D) FAT32 E) System Commander

**13.There was a green house. Inside the green house there was a white house. Inside the white house there was a red house. Inside the red house there were lots of babies. What is it?**

Ans.Watermelon

**14.Which of the following is larger than  $3/5$ ?**

- (1)  $\frac{1}{2}$  (2) **39/50** (3)  $7/25$  (4)  $3/10$  (5)  $59/100$

**15.What is silly window syndrome?**

**Ans:** It is a problem that can ruin TCP performance. This problem occurs when data are passed to the sending TCP entity in large blocks, but an interactive application on the receiving side reads 1 byte at a time.

**16.What is wide-mouth frog?**

**Ans.** Wide-mouth frog is the simplest known key distribution center (KDC) authentication protocol.

**17. Convert the expression  $((A + B) * C - (D - E) \wedge (F + G))$  to equivalent Prefix and Postfix notations.**

Prefix Notation:

$$\wedge - * +ABC - DE + FG$$

Postfix Notation:

$$AB + C * DE - - FG + ^$$

**18. Kate, Demi, Madona, Sharon, Britney and Nicole decided to lunch together in a restaurant. The waiter led them to a round table with six chairs. How many different ways can they seat?**

Ans. Note that on a round table ABCDEF and BCDEFA is the same.

The first person can sit on any one of the seats. Now, for the second person there are 5 options, for the third person there are 4 options, for the forth person there are 3 options, for the fifth person there are 2 options and for the last person there is just one option. Thus, total different possible seating arrangements are

$$= 5 * 4 * 3 * 2 * 1$$

120

**19. One of the four people - Mr. Clinton, his wife Monika, their son Mandy and their daughter Cindy - is a singer and another is a dancer. Mr. Clinton is older than his wife and Mady is older than his sister.**

1. If the singer and the dancer are the same sex, then the dancer is older than the singer.
2. If neither the singer nor the dancer is the parent of the other, then the singer is older than the dancer.
3. If the singer is a man, then the singer and the dancer are the same age.
4. If the singer and the dancer are of opposite sex then the man is older than the woman.
5. If the dancer is a woman, then the dancer is older than the singer. Whose occupation do you know? And what is his/her occupation?

**Ans.** Cindy is the Singer. Mr. Clinton or Monika is the Dancer.

From (1) and (3), the singer and the dancer, both can not be a man. From (3) and (4), if the singer is a man, then the dancer must be a man. Hence, the

singer must be a woman.

CASE I : Singer is a woman and Dancer is also a woman Then, the dancer is Monika and the singer is Cindy.

CASE II : Singer is a woman and Dancer is also a man Then, the dancer is Mr. Clinton and the singer is Cindy.

In both the cases, we know that Cindy is the Singer. And either Mr. Clinton or Monika is the Dancer.

**20. What is a mixin class?**

Ans. A class that provides some but not all of the implementation for a virtual base class is often called mixin. Derivation done just for the purpose of redefining the virtual functions in the base classes is often called mixin inheritance. Mixin classes typically don't share common bases.

**21. Four jolly men sat down to play, And played all night till the break of day. They played for cash and not for fun, With a separate score for every one. When it came time to square accounts, They all had made quite fair amounts. Now, not one has lost and all have gained, Tell me, now, this can you explain?**

Ans. Four men in a dance band

**22. Which iconic motorcycle has Polaris India Launched priced between 26.5 to 33lakhs in Delhi?**

Ans. Indian

**23. What is BSS(Block Started by Symbol)?**

Ans. A data representation at the machine level, that has initial values when a program starts and tells about how much space the kernel allocates for the un-initialized data. Kernel initializes it to zero at run-time.

**24. What are partial, alternate,, artificial, compound and natural key?**

**Ans. Partial Key:**

It is a set of attributes that can uniquely identify weak entities and that are related to same owner entity. It is sometime called as Discriminator.

**Alternate Key:**

All Candidate Keys excluding the Primary Key are known as Alternate Keys.

**Artificial Key:**

If no obvious key, either stand alone or compound is available, then the last resort is to simply create a key, by assigning a unique number to each record or occurrence. Then

this is known as developing an artificial key.

Compound Key:

If no single data element uniquely identifies occurrences within a construct, then combining multiple elements to create a unique identifier for the construct is known as creating a compound key.

Natural Key:

When one of the data elements stored within a construct is utilized as the primary key, then it is called the natural key.

**25. What is a Phantom Deadlock?**

Ans. In distributed deadlock detection, the delay in propagating local information might cause the deadlock detection algorithms to identify deadlocks that do not really exist. Such situations are called phantom deadlocks and they lead to unnecessary aborts.

**26. There are 8, 15, 13, 14 nodes were there in 4 different trees. Which of them could have formed a full binary tree?**

Ans 15.

In general:

*There are  $2^n - 1$  nodes in a full binary tree. By the method of elimination:*

Full binary trees contain *odd* number of nodes. So there cannot be full binary trees with 8 or 14 nodes, so rejected. With 13 nodes you can form a *complete* binary tree but not a full binary tree. So the correct answer is 15.

**27. What is the output?**

```
{  
    int k=1;  
  
    printf("%d==1 is \"%s\",k,k==1?"TRUE":"FALSE");  
}
```

Ans. 1==1 is TRUE

*Explanation:* 34

When two strings are placed together (or separated by white-space) they are concatenated (this is called as "stringization" operation). So the string is as if it is given as "%d==1 is %s". The conditional operator( ?: ) evaluates to "TRUE".

**28. In a certain game, if 2 wixsomes are worth 3 changs, and 4 changs are worth 1 plut, then 6 plutes are worth how many wixsomes?**

Ans. It is given that

2 wixsomes = 3 changs

8 wixsomes = 12 changs -- (I)

Also, given

that 4

changs = 1

plut

12 changs = 3 plutes

8 wixsomes = 3 plutes-- From (I)

Therefore,

6 plutes = 16 wixsomes

**29. What level of security does Windows NT meets?**

Ans. C2 level security

**30. What is page cannibalizing?**

Ans. Page swapping or page replacements are called page cannibalizing

**31.What is NVT (Network Virtual Terminal)?**

Ans. It is a set of rules defining a very simple virtual terminal interaction. The NVT is used in the start of a Telnet session