Academic Year 2019-2020
Questions & Answers

1. **In which of the following North-East states, The President of India Ram Nath Govind approved the delimitation exercise (Feb 2020).**
    1) Assam
    2) Manipur
    3) Nagaland
    4) Arunachal Pradesh
    5) All the above

2. **Find the railway station where the Indian railways launched its First "Restaurant on Wheels" for railway passengers?**
    Ans. Asansol Station, West Bengal

3. **Name the Indian state which organized the 2 day 'Nimad Chilli Festival 2020'**
    Ans.Madhya Pradesh

4. **Name the Indian organization which organized the India-New Zealand Business Forum 2020 in New Delhi.**
    Ans.Federation of Indian Chambers of Commerce & Industry (FICCI)

5. **Which Indian State has been chosen as 'theme state' in 34th edition of Surajkund International Crafts mela 2020?**
    Ans. Himachal Pradesh

6. **Which country has banned the export of N95 masks and all kinds of protective equipment's with immediate effect to avoid the increasing demand of the products (due to outbreak of nCoV)?**
    Ans.India

7. **The Energy and Resources Institute (TERI) along with Swiss Agency for Development and Cooperation (SDC) have launched Clean Air Project (CAP) in which Indian city/cities?**
    1) Lucknow
    2) Nasik
    3) Kanpur
    4) Maharashtra
    5) All of the Above

8. **Which Indian State banned online lottery scheme in January 2020 to check illegal sale of online lottery?**
   Ans.Punjab

9. **The name of the Hockey Player who won the Bharat Gaurav Award by East Bengal Football Club is**?
   Ans.Dhanraj Pillay

10. **Who is the world's 1st deaf person to row across Atlantic Ocean?**
    Ans.Mo O'Brien

11.**An old advisor of a company was replaced by a young man. As a result, the average age of the board of ten advisors of the company was the same as it was 4 years ago. How much younger is the young man who replaced the old advisor?**
A) 42 years
B) 40 years
C) 36 years
D) 32 years

12.6: **If (2x-y)=4 then (6x-3y)=?**
   1. 15
   2. 12
   3. 18
   4. 10

13. **A clock is set right at 8 a.m. The clock gains 10 minutes in 24 hours. What will be the true time when the clock indicates 1 p.m. on the following day?**
    1. 48 min. past 12
    2. 38 min. past 12
    3. 28 min. past 12
    4. 25 min. past 12

14. **What is the missing number in this series? 8 2 14 6 11 ? 14 6 18 12**
    1. 16
    2. 9
    3. 15
    4. 6

15.**A, B and C enter into a partnership and their shares are in ratio 1/2 : 1/3 : 1/4, after 2 months, A withdraws half of his capital and after 12 months, a profit of Rs 1050 is divided among them. What.is.B's.share?**

A.Rs.420

B.Rs.300

C.Rs.400

D.Rs.350

16.3 years ago, the average of a family of 5 members was 17 years. A baby having been born, the average age of the family is the same today. The present age of the baby is:

A.5 years

B.2 years

C.1year

D.4years

17.Two trains are moving in opposite directions at 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is:

A.58 sec

B.50 sec

C.48sec

D.56sec

18.Anju and Bimal are partners in a business. Anju contributes 1 / 4 of the capital for 15 months and Bimal received 2 / 3 of the profit, for how long Bimal's money was used ?

A.5 months

B.3months

C.8 months

D.10 month

19.How much time will it take for an amount of Rs. 450 to yield Rs. 81 as interest at 4.5% per annum of simple interest?

Ans.4 years

20.A sum of Rs. 12,500 amounts to Rs. 15,500 in 4 years at the rate of simple interest. What is the rate of interest

Ans.6%

21.The length of the bridge, which a train 130 meters long and travelling at 45 km/hr can cross in 30 seconds, is:

Ans.245m

22.The number of arrangements that can be made with the letters of the word MEADOWS so that the vowels occupy the even places?

Ans.144

23.A person was asked to state his age in years. His reply was, "Take my age three years hence, multiply it by 3 and then subtract three times my age three years ago and you will know how old I am." What was the age of the person?

Ans.18 years

24.Which are the layers in OSI Model?

Ans. The OSI model defines networking in terms of a vertical stack of seven layers. The upper layers of the OSI model represent software that implements network services like encryption and connection management. The lower layers of the OSI model implement hardware-oriented functions such as routing, addressing and flow control. All data that goes over a network connection passes through each of the seven layers.

25.What is a network topology?

Ans. Network Topology is the schematic description of a network arrangement, connecting various nodes(sender and receiver) through lines of connection.

26.What is IPv4 and IPv6?

Ans. IPv4 (*Internet Protocol Version 4*) is the fourth revision of the Internet Protocol (IP) used to to identify devices on a network through an addressing system. The Internet Protocol is designed for use in interconnected systems of packet-switched computer communication networks IPv4 is the most widely deployed Internet protocol used to connect devices to the Internet. IPv4 uses a 32-bit address scheme allowing for a total of 2^32 addresses (just over 4 billion addresses). With the growth of the Internet it is expected that the number of unused IPv4 addresses will eventually run out because every device -- including computers, smartphones and game consoles -- that connects to the Internet requires an address.

What is IPv6 (Internet Protocol Version 6)?

A new Internet addressing system Internet Protocol version 6 (IPv6) is being deployed to fulfill the need for more Internet addresses.

IPv6 (*Internet Protocol Version 6*) is also called IPng (*Internet Protocol next generation*) and it is the newest version of the Internet Protocol (IP) reviewed in the IETF standards committees to replace the current version of IPv4 (Internet Protocol Version 4).

IPv6 is the successor to Internet Protocol Version 4 (IPv4). It was designed as an evolutionary upgrade to the Internet Protocol and will, in fact, coexist with the older IPv4 for some time. IPv6 is designed to allow the Internet to grow steadily, both in terms of the number of hosts connected and the total amount of data traffic transmitted.

IPv6 is often referred to as the "next generation" Internet standard and has been under development now since the mid-1990s. IPv6 was born out of concern that the demand for IP addresses would exceed the available supply.

27. What is MAC address?

Ans. A media access control address (MAC address) of a computer is a unique identifier assigned to network interfaces for communications at the data link layer of a network segment. MAC addresses are used as a network address for most IEEE 802 network technologies, including Ethernet and Wi-Fi. Logically, MAC addresses are used in the media access control protocol sublayer of the OSI reference model

28. What is Mercator?

Ans. A conformal map projection of which the meridians are usually drawn parallel to each other and the parallels of latitude are straight lines whose distance from each other increases with their distance from the equator

29. What is the concept behind Apple Black Hole Phone

Ans. The Apple Black Hole comprises 4 components: the charging base, the Prism, the Black Hole and the giftbox. Things get interesting when you try to use the handset… its central ball will levitate when you open your hand and all functions will be controlled in mid-air, with the aid of holographic technology. The Black Hole concept phone can be connected to the charging base and used as a desktop device, still projecting the needed interface.

30. What is RippleBuds?

Ans. RippleBuds is the world's newest and best Bluetooth earbuds with a special in-ear microphone system. It's small and powerful. Its innovative noise blocking technology gives users exclude ambient noise and make them be understood/heard clearly regardless of the noise environment while communicating.

31. What are the two main types of access control lists (ACLs)?

A . Standard
B. IEEE
C. Extended
D. Specialized

32. How to store mobile number in database ?

Ans. varchar (10), for country code you can add (3)

33. What is your idea for generating Random Number.

Ans. You can use Web Service

34..**Which is correct syntax ?**

a. myfile:open ("example.bin", ios::out);
b. **myfile.open ("example.bin", ios::out);**
c. myfile::open ("example.bin", ios::out);
d. myfile.open ("example.bin", ios:out);

35.List the implicit member functions of a class?
Ans. Implicit member functions of a Class in C++ Copy constructor if no move constructor or move assignment operator is explicitly declared.If a destructor is declared generation of a copy constructor is deprecated. Move constructor if no copy constructor, move assignment operator or destructor is explicitly declared.

36.What are the storage classes in C++?
Ans. Storage Classes in C Programming Language
auto. This storage class denotes that an identifier has automatic storage duration. ...
register. Hints to the compiler that access to an object should be as fast as possible. ...
  extern. Used to declare an object or function that is defined elsewhere (and that has external linkage).,static.,Thread_local,typedef.

37.There are 5 houses in 5 different colours. In each house lives a person of a different nationality. The 5 owners drink a certain type of beverage, smoke a certain brand of cigar, and keep a certain pet. Using the clues below can you determine who owns the fish?
  • **The Brit lives in a red house.**
  • **The Swede keeps dogs as pets.**
  • **The Dane drinks tea.**
  • **The green house is on the left of the white house.**
  • **The green house owner drinks coffee.**
  • **The person who smokes Pall Mall rears birds.**
  • **The owner of the yellow house smokes Dunhill.**
  • **The man living in the house right in the middle drinks milk.**
  • **The Norwegian lives in the first house.**
  • **The man who smokes Blend lives next door to the one who keeps cats.**
  • **The man who keeps horses lives next door to the man who smokes Dunhill.**
  • **The owner who smokes Blue Master drinks beer.**
  • **The German smokes Prince.**
  • **The Norwegian lives next to the blue house.**
  • **The man who smokes Blend has a neighbour who drinks wateR**

Ans. This teaser is usually attributed to Einstein, who may or may not have written it. The German owns the fish and the table below details the full answer:

Nationality: Norweg   Dane   Brit   German   Swede

Colour   : Yellow Blue   Red   Green   White
Beverage : water   tea   milk   coffee beer
Smokes   : Dunhill Blend Pall Mall Prince Blue Master
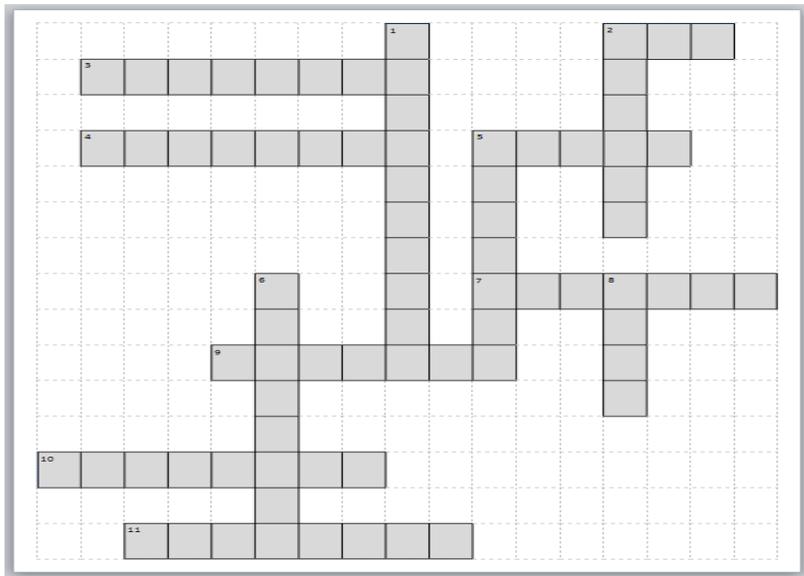   Pet   : cats   horses birds   fish   dogs

38.Which word, if pronounced right, is wrong, but if pronounced wrong is right?
    Ans.Wrong

39.Would you rather a crocodile attack you or an alligator?
    Ans.I would rather the crocodile attack the alligator. Read the sentence again to see the double meaning.

40.Crossword Puzzle

ACROSS
2. An abbreviation for the processor; the brains of the computer
3. Programs that run on a computer
4. Copy data from one system to another, typically over the Internet
5. An input device that is used for pointing and clicking
7. A set of icons or buttons that are part of an open window
9. Used to navigate the World Wide Web
10.An input device that is used for typing
11.The global communication network that allows computers to connect and exchange information
DOWN
1. An output device used to listen to computer audio

2. A blinking line on the screen
5. TV-like part of the computer that you look at to see information
6. Physical parts of a computer
8. A highlighted and underlined word or phrase that you can click on

Ans.

ACROSS 2. cpu 3. software 4. download 5. mouse 7. taskbar 9. Browser 10.keyboard 11.internet
DOWN 1.headphones 2. cursor 5. monitor 6. hardware 8. Keys

41.The average time necessary for the correct sector of a disk to arrive at the read write head is…………
Ans.Rotational Delay

42.What is the difference between latent and masked defects?
Ans. A latent defect is an existing defect that has not yet caused a failure because the sets of conditions were never met.

43.Does the minimum spanning tree of a graph give the shortest distance between any 2 specified nodes?
Ans. No. The Minimal spanning tree assures that the total weight of the tree is kept at its minimum. But it doesn't mean that the distance between any two nodes involved in the minimum-spanning tree is minimum.

44.What is meant by Proactive, Retroactive and Simultaneous Update?
Ans. Proactive Update: The updates that are applied to database before it becomes effective in real world. Retroactive Update: The updates that are applied to database after it becomes effective in real world.

45.Predict the output or error(s) for the following:

```
A). void main()
{
int const * p=5;
printf("%d",++(*p));
}
```

Ans. Compiler error: Cannot modify a constant value. Explanation: p is a pointer to a "constant integer". But we tried to change the value of the "constant integer".

```
B). main()
{
char s[ ]="man";
int i;
for(i=0;s[ i ];i++)
printf("\n%c%c%c%c",s[ i ],*(s+i),*(i+s),i[s]);
```

```
}
```
Ans. mmmm aaaa nnnn

```
C). main()
{
static int var = 5;
printf("%d ",var--);
if(var)
main();
}
```
Ans. 5 4 3 2 1

Explanation: When static storage class is given, it is initialized once. The change in the value of a static variable is retained even between the function calls. Main is also treated like any other ordinary function, which can be called recursively

46.What is output?
```
#include main()
 {
char s[]={'a','b','c','\n','c','\0'};
 char *p,*str,*str1; p=&s[3];
str=p; str1=s;

printf("%d",++*p + ++*str1-32); }
```
Ans.It willraise error

47.What is guard condition?

Ans. Guard conditions affect the behavior of a state machine by enabling actions or transitions only when they evaluate to TRUE and disabling them when they evaluate to FALSE. In the UML notation, guard conditions are shown in square brackets (e.g., [key_count == 0] in Figure 2).

48.What will be the output of the program?
```
#include<stdio.h>
int i;
int fun();

int main()
{

while(i)
{
fun();
```

```
main();
}
printf("Hello\n");
return 0;
}
int fun()
{
printf("Hi");
}
```

Ans.Hello

Step 1: int i; The variable i is declared as an integer type.