Academic Year 2016-2017
Questions & Answers

1. **Which country going to conduct 2024 for Summer Olympic**
   Ans.Paris

2. **Which state government has launched "Apni Gaddi Apna Rojgar" scheme for jobless youth**
   Ans.Punjab

3. **Which IIT institute has invented a low-cost dirt detector that alerts authorities when a place needs cleaning?**
   Ans.IIT Kharagpur

4. **With Whom Airtel payments bank tied up for ATM services recently?**
   Ans.HPCL

5. **Who became the Asia's Second-Richest Person?**
   Ans.Mukesh Ambani

6. **Recently, eBay India has been merged into _____.**
   Ans.Flipkart

7. **_____ firm has unveiled its newest Innovation Labs at the Chennai and Bengaluru Tech centres.**
   Ans.Paypal

8. **The Internet Saathi programme of ____ company has reached a milestone of 100,000 villages.**
   Ans.Google

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

10. **Which country launches its first Environmental Research Satellite recently?**
    Ans.Israel

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:
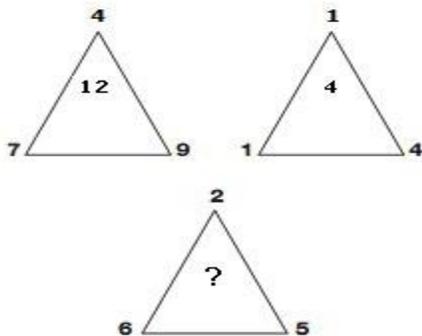
   A.5 years

   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

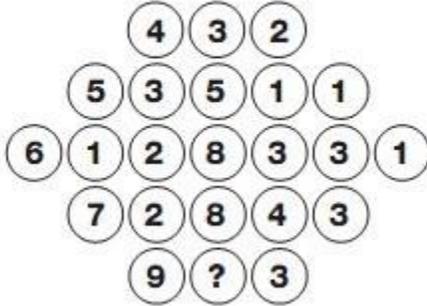**19**. Which number replaces the question mark?
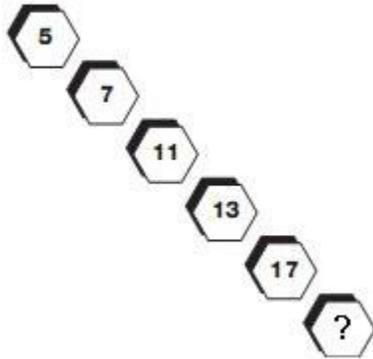

Ans.9

20. What number comes inside the circle?

Ans.6

21. Which number completes the puzzle?

Ans.19

22. What time should the last watch show?

Ans.5.19

23.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

24.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%

25.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

26.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

27.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

28.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.

29.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.

30.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.

31. 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

32. What is Router?

Ans. Routers are small electronic devices that join multiple computer networks together via either wired or wireless connections.

33. What do you mean by bandwidth?

Ans. Bandwidth referred to the volume of information per unit of time that a transmission medium (like an internet connection) can handle.An internet connection with a larger bandwidth can move a set amount of data (say, a video file) much faster than an internet connection with a lower bandwidth.Bandwidth is typically expressed in *bits per second*, like 60 Mbps or 60 Mb/s, to explain a data transfer rate of 60 million bits (megabits) every second.

34. What is IP address?

Ans. a unique string of numbers separated by full stops that identifies each computer using the Internet Protocol to communicate over a network.

35.Identify them?

1.

Ans. Larry Page And Sergery Brin – Founder Of Goggle

2.

Ans. Brain Acton- Co-Founder Of Whatsapp

3.

Ans. Jan Koum- Ceo And Co-Founder Of Whatsapp

36.Explain the following commands with their syntax and example
1. chmod 2. ifconfig 3. touch 4 sudo 5. kill 6. less 7. ping 8. pwd 9. telnet 10. uname
11.unrar 12. who 13. zip 14. du

1. chmod: chmod is used to change the permissions of files or directories.

2. ifconfig: ifconfig is used to configure, or view the configuration of, a network interface.

3. touch : The touch command is the easiest way to create new, empty files. It is also used to change the timestamps (i.e., dates and times of the most recent access and modification) on existing files and directories.

4. sudo: sudo ("superuser do") allows a user with proper permissions to execute a command as another user, such as the superuser. ATSS Institute of Industrial and Computer Management & Research Nigdi Pune, MCA Dept.

5. kill: Using the kill command. In Linux and Unix when you want to stop a running process you can use the kill command via the command line interface. The kill command in it's most basic form is pretty simple to work with, if you want to terminate a process you simply need to know the processes id number.

6. less: "less" command is used to view files instead of opening the file. This post describes "less" commandused in Linux along with usage. * Less is a program similar to more but which allows backward movement in the file as well as forward movement.

7. ping: PING (Packet INternet Groper) command is the best way to test connectivity between two nodes. Whether it is Local Area Network (LAN) or Wide Area Network (WAN). Ping use ICMP (Internet Control Message Protocol) to communicate to other devices.

8. pwd: Print the name of the working directory.

9. telnet: Open a connection to the named host. If no port number is specified, telnet will attempt to contact atelnet daemon at the standard port (23). The host specification may be a

host name or IP address.

10. uname: The uname command reports basic information about a computer's software and hardware. When used without any options, uname reports the name, but not the version number, of the kernel (i.e., the core of the operating system).

11. unrar: To open/extract a RAR file with their original directory structure. just issue belowcommand with unrar x option. It will extract according their folder structure see below output of the command.

12. who: The who command prints information about all users who are currently logged in.

13. zip: is a compression and file packaging utility for Unix. Each file is stored in single .zip {.zip-filename} file with the extension .zip. zip is used to compress the files to reduce file size and also used as file package utility.

14. du: he Linux "du" (Disk Usage) is a standard Unix/Linux command, used to check the information of disk usage of files and directories on a machine. The du command has many parameter options that can be used to get the results in many formats. The du command also displays the files and directory sizes in a recursively manner.

37. Explain the following in short.

1. VPN 2. NAT 3. RIP 4. NIC 5. NOS MCA Dept. 6. DoS 7. DHCP 8. ARP 9. DNS 10. SMTP

Ans.

1. A virtual private network (VPN) extends a private network across a public network, and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network. Applications running across a VPN may therefore benefit from the functionality, security, and management of the private network.

2. Network address translation (NAT) is a method of remapping one IP address space into another by modifying network address information in the IP header of packets while they are in transit across a traffic routing device. [1] The technique was originally used as a shortcut to avoid the need to readdress every host when a network was moved. It has become a popular and essential tool in conserving global address space in the face of IPv4 address exhaustion. One Internet-routable IP address of a NAT gateway can be used for an entire private network.

3. The Routing Information Protocol (RIP) is one of the oldest distance-vector routing protocols which employ the hop count as a routing metric. RIP prevents routing loops by implementing a limit on the number of hops allowed in a path from source to destination. The largest number of hops allowed for RIP is 15, which limits the size of networks that RIP can support.

4. A network interface controller (NIC, also known as a network interface card, network adapter, LAN adapter orphysical network interface, [1] and by similar terms) is a computer hardware component that connects a computer to acomputer network.

5. The term network operating system is used to refer to two rather different concepts: • A specialized operating system for a network device such as a router, switch or firewall. • An operating system oriented to computer networking, to allow shared file and printer access among multiple computers in a network, to enable the sharing of data, users, groups, security, applications, and other networking functions,[1] typically over a local area network (LAN), or private network. This sense is now largely historical, as common operating systems generally now have such features included.

6. DOS is a family of disk operating systems. [2] DOS primarily consists of MS-DOS and a rebranded version under the name IBM PC DOS, both of which were introduced in 1981. Other later compatible systems from other manufacturers include DRDOS (1988), ROM-DOS (1989), PTS-DOS (1993),and FreeDOS (1998). MS-DOS dominated the x86-based IBM PC compatible market between 1981 and 1995.

7. The Dynamic Host Configuration Protocol (DHCP) is a network management protocol used on TCP/IP networks whereby a DHCP server dynamically assigns an IP address and other network configuration parameters to each device on a network so they can communicate with other IP networks.

8. The Address Resolution Protocol (ARP) is a communication protocol used for discovering the link layer address, such as a MAC address, associated with a given network layer address, typically an IPv4 address. This mapping is a critical function in the Internet protocol suite. ARP was defined in 1982 by RFC 826, which is Internet Standard STD 37.

9. The Domain Name System (DNS) is a hierarchical decentralized naming system for computers, services, or other resources connected to the Internet or a private network. It

associates various information with domain names assigned to each of the participating entities. Most prominently, it translates more readily memorized domain names to the numerical IP addresses needed for locating and identifying computer services and devices with the underlying network protocols. By providing a worldwide, distributed directory service, the Domain Name System is an essential component of the functionality on the Internet, that has been in use since 1985.

10. Simple Mail Transfer Protocol (SMTP) is an Internet standard for electronic mail (email) transmission. First defined by RFC 821 in 1982, it was last updated in 2008 with Extended SMTP additions by RFC 5321, which is the protocol in widespread use today.

38. 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

39. 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.

40. 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.

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

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

42. How to store mobile number in database ?

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

43. What is your idea for generating Random Number.

Ans.You can use Web Service

44. What is Atomic Section in Java and How it is used.

Ans. Atomic section is more efficient than Synchronization .Atomic operations are performed as single unit of task without interference from other operations. Atomic operations are necessity in multithreaded environment to avoid data inconsistency. It is explained with the help of example.

45. Pascal's Triangle Challenge in C/C++. Write a program to compute the value of a given position in Pascal's . The program should prompt the user to input a row and a position in the row. The program should ensure that the input is valid before computing a value for the position.

Ans. Write program for the following using concepts of C and C++.

46. 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);

47. 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**.**

48. 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.

49. 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
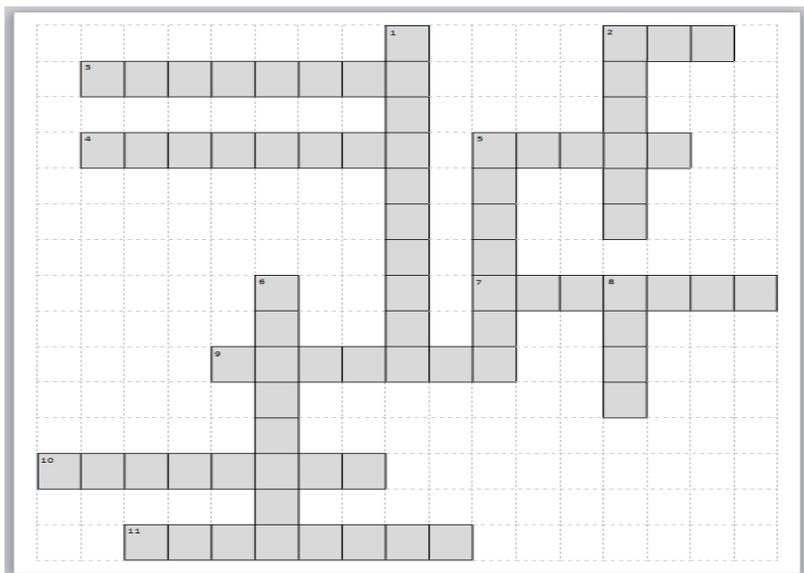   Pet   : cats   horses birds   fish   dogs

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

51. **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.

52. **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