PPS MCQ

EDVAC stands for _____

Ans: Electronic Discrete Variable Automatic Computer

Computer programming can be divided into _____

Ans: All of the mentioned (Problem definition and problem solving, Creating a structured solution (or algorithm) and coding)

Consider the following Single Precision Floating Point Number and determine its sign
10111110001000000000000000000000

Ans: Negative

The correct syntax for running two variable for loop simultaneously is

Ans: for(i=0, j=0; i<n, j<n; i++, j+=5)

_____ is symbol used to connect two symbols of flowchart

Ans: Arrow

Which of the following is not a flowchart symbol

Ans: Case

Hard disks are type of ____

Ans: magnetic disks

Which of the following programming paradigm follows von Neumann-Eckert model

Ans: Imperative paradigm

A system software that can execute high-level language program.

Ans: Compiler

The memory space allocated to the array declared as:

Int a[10]; will be _____ bytes

Ans: 40

Which of the following is the correct way to declare a pointer variable

Ans: int *ptr

What characteristics of read-only memory (ROM) makes it useful?

Ans: Data in ROM is non-volatile, that is, it remains there even without electrical power

Convert the following decimal number to hexadecimal 125.

Ans: 7D

Convert the following decimal number to binary 187

Ans: 10111011

Which of the following is not a valid variable name declaration?

Ans: None of the mentioned

Function is _____

Ans: All of the mentioned

Python programming language is used for:

Ans: All of the mentioned

Which of the following is not a built-in data type?

Ans: Class

Which of the following is used to know the data type of a variable in Python?

Ans: type()

In which year was the Python language developed?

Ans: 1989

What will be the output of the following Python statement?

print("a"+"bc")

Ans: abc

Which of the following cannot be a variable?

Ans: in

A pointer is a memory address. Suppose the pointer variable has p address 1000, and that p is declared to have type int*. and an int is 4 bytes long. What address is represented by expression p+2?

Ans: 1008

Which header file should be included to use the memory allocation functions like malloc(), calloc(), realloc() and free()?

Ans: #include<stdlib.h>

Z = {"x":0, "y":1} means

Ans: All of the mentioned

1.	Which of the following memory is non-volatile?
a.	SRAM
b.	DRAM
c.	ROM
d.	All of the above

View Answer Report Discuss Too Difficult!

Answer: (c).ROM

2.	Any data or instruction entered into the memory of a computer is considered as
a.	Storage
b.	Output
c.	Input
d.	Information

View Answer Report Discuss Too Difficult!

Answer: (c).Input

3.	Time during which a job is processed by the computer is:
a.	Execution Time
b.	Delay Time
c.	Real Time
d.	Waiting Time

View Answer Report Discuss Too Difficult!

Answer: (a).Execution Time

4.	Which of the following circuit is used as a 'Memory device' in computers?
a.	Rectifier
b.	Flip Flop
c.	Comparator
d.	Attenuator

Answer: (b).Flip Flop

5.	The 'IC' chip, used in computers, is made of
a.	Chomium
b.	Iron Oxide
c.	Silica
d.	Silicon

Answer: (d).Silicon

6.	Where is the headquarters of Intel located?
a.	Redmond, Washington
b.	Tucson, Arizona
c.	Santa Clara, California
d.	Richmond, Virginia

Answer: (c).Santa Clara, California

7.	Which of the following was the first Intel processor introduced?
a.	3080
b.	4004
c.	8080
d.	8086

Answer: (b).4004

8.	RAM chips
a.	allow the computer to store data electronically
b.	store data indefinitely unless you delete it
c.	are secondary memory
d.	All of the above

9.	Which memory is non volatile and may be written only once?
a.	RAM
b.	EEPROM
c.	EPROM
d.	PROM

Answer: (d).PROM

10.	The memory which is programmed at the time it is manufactured is
a.	RAM
b.	ROM
c.	PROM
d.	EPROM

Answer: (b).ROM

This set of Basic Computer Fundamentals Questions and Answers focuses on "Types of Computers".

1. Which of the following is not a type of computer on the basis of operation?
a) Remote
b) Hybrid
c) Analog
d) Digital
View Answer
Answer: a
Explanation: There are three types of computers basically on the basis of operation: Analog, Digital and Hybrid.

2. Remote computers work on continuous range of values.
a) True
b) False
View Answer
Answer: b
Explanation: The statement is false. Analog Computer is a computing device that works on continuous range of values. The results that are given by the analog computers will mostly be approximate since they deal with quantities that keep on varying.

3. A computer that operates on digital data.
a) remote
b) hybrid
c) analog
d) digital
View Answer

Answer: d
Explanation: The digital computer uses binary number system in which there are only two digits 0 and 1. Each one is called a bit.

4. This type of computer is mostly used for automatic operations.
a) remote
b) hybrid
c) analog
d) digital
View Answer
Answer: b
Explanation: Hybrid computer is mostly used with automatic operations of complicated physical processes and the machines.

5. _____ are used for solving complex application such as Global Weather Forecasting.
a) Super Computers
b) Public computers
c) Mobile computers
d) Hybrid computers
View Answer
Answer: a
Explanation: Super computers are used with complex applications like Global Weather Forecasting, Creating graphic images, engineering design and testing, space exploration, etc.

6. The invention of _____ gave birth to the much cheaper micro computers.
a) Mainframes
b) Microcomputers
c) Microprocessors
d) PDAs
View Answer
Answer: c
Explanation: The invention of microprocessor (also called as single chip CPU) gave birth to the much cheaper microcomputers.

7. They can operate on batteries and hence are very popular with travelers.
a) Mainframes
b) Laptops
c) Microprocessors
d) Hybrid
View Answer

Answer: b
Explanation: Laptops can operate on batteries and hence are very popular with travelers. The screen folds down onto the keyboard when not in use.

8. PDA stands for?
a) personal digital applications
b) private digital applications
c) personal digital assistants
d) private digital assistants
View Answer
Answer: b
Explanation: PDA stands for Personal Digital Assistants. They are pen-based and also battery powered.

9. PDAs are also called?
a) PCs
b) Laptops
c) Tablets
d) Handheld
View Answer
Answer: d
Explanation: PDAs are also called as Personal Digital Assistants. They are small and can be carried anywhere.

10. _____computers are lower to mainframe computers in terms of speed and storage capacity.
a) Mini
b) Super
c) Mainframes
d) Hybrid
View Answer
Answer: a

1. *A hybrid computer is the one having combined properties of ____= ____*
   (A) Micro & Mini computers
   (B) Mini & Super Computers
   (C) Mainframe & Super Computers
   (D) Analog & Digital computers

   Answer

   (D) Analog & Digital computers=

2. **Which of the following uses a handheld Operating Systems?**
   (A) Super Computer
   (B) Laptop
   (C) Mainframe
   (D) PDA

   Answer

   (D) PDA

3. **A _____ terminal can display images as well as text.=**
   (A) text
   (B) dumb
   (C) graphical
   (D) None of the Above

   Answer

   (C) graphical

4. **The word length of Micro computers lies in the range between __= _____**
   (A) 8 and 16 bits
   (B) 8 and 21 bits
   (C) 8 and 24 bits
   (D) 8 and 32 bits

   Answer

   (D) 8 and 32 bits

   =

5. **The fastest and most expensive computers are_____**
   (A) Super Computers
   (B) Quantum Computers
   (C) Mainframe Computers
   (D) Micro Computers

   Answer

(A) Super Computers

6. **Which of the following is the smallest and fastest computer imi= tating brain working?**
   (A) Super Computer
   (B) Quantum Computer
   (C) Mainframe Computer
   (D) PDA

   Answer

   (B) Quantum Computer

   <= br>

7. **A _____ terminal does not process or store data.**
   (A) dumb
   (B) intelligent
   (C) Both(A) & (B)
   (D) None of the Above

   Answer

   (A) dumb

8. **The user generally applies _____ to access mainframe or sup= er computer?**
   (A) node
   (B) terminal
   (C) desktop
   (D) None of the Above

   Answer

   (B) terminal

9. **Desktop and Personal computers are also known as_____**
   (A) Super Computer
   (B) Quantum Computer
   (C) Mainframe Computer
   (D) Micro Computer

Answer

(D) Micro Computer

10. *Graphical terminals are divided into two types. They are _____<= /strong>*
    (A) text and dumb
    (B) dumb and intelligent
    (C) vector mode and raster mode
    (D) None of the Above

    Answer

    (C) vector mode and raster mode

1

. Which of the following devices can be sued to directly image printed text?

- OCR
- OMR
- MICR
- All of above

A. OCR

2

. The output quality of a printer is measured by

- Dot per inch
- Dot per sq. inch
- Dots printed per unit time
- All of above

B. Dot per sq. inch

3

. In analogue computer

- Input is first converted to digital form
- Input is never converted to digital form
- Output is displayed in digital form
- All of above

B. Input is never converted to digital form

4

. In latest generation computers, the instructions are executed

- Parallel only
- Sequentially only
- Both sequentially and parallel
- All of above

C. Both sequentially and parallel

5

. Who designed the first electronics computer – ENIAC?

- Van-Neumann
- Joseph M. Jacquard
- J. Presper Eckert and John W Mauchly
- All of above

C. J. Presper Eckert and John W Mauchly

6

. Who invented the high level language "C"?

- Dennis M. Ritchie
- Niklaus Writh
- Seymour Papert
- Donald Kunth

A. Dennis M. Ritchie

7

. Personnel who design, program, operate and maintain computer equipment refers to

- Console-operator

- Programmer
- Peopleware
- System Analyst

8

. When did arch rivals IBM and Apple Computers Inc. decide to join hands?

- 1978
- 1984
- 1990
- 1991

9

. Human beings are referred to as Homosapinens, which device is called Sillico Sapiens?

- Monitor
- Hardware
- Robot
- Computer

10

. An error in software or hardware is called a bug. What is the alternative computer jargon for it?

- Leech
- Squid
- Slug
- Glitch

1
. What is a light pen?

- Mechanical Input device
- Optical input device
- Electronic input device
- Optical output device

B. Optical input device

2
. BCD is

- Binary Coded Decimal
- Bit Coded Decimal
- Binary Coded Digit
- Bit Coded Digit

A. Binary Coded Decimal

3
. ASCII stands for

- American Stable Code for International Interchange
- American Standard Case for Institutional Interchange
- American Standard Code for Information Interchange
- American Standard Code for Interchange Information

C. American Standard Code for Information Interchange

4
. Which of the following is first generation of computer?

- EDSAC
- IBM-1401
- CDC-1604
- ICL-2900

A. EDSAC

5
. Chief component of first generation computer was

- Transistors
- Vacuum Tubes and Valves
- Integrated Circuits
- None of above

B. Vacuum Tubes and Valves

6

. FORTRAN is

- File Translation
- Format Translation
- Formula Translation
- Floppy Translation

C. Formula Translation

7

. EEPROM stands for

- Electrically Erasable Programmable Read Only Memory
- Easily Erasable Programmable Read Only Memory
- Electronic Erasable Programmable Read Only Memory
- None of the above

A. Electrically Erasable Programmable Read Only Memory

8

. Second Generation computers were developed during

- 1949 to 1955
- 1956 to 1965
- 1965 to 1970
- 1970 to 1990

B. 1956 to 1965

9

. The computer size was very large in

- First Generation
- Second Generation

- Third Generation
- Fourth Generation

10

. Microprocessors as switching devices are for which generation computers

- First Generation
- Second Generation
- Third Generation
- Fourth Generation

1) What was the name of first computer designed by Charlse Babbage?

1. Analytical Engine
2. Difference Engine
3. Colossus
4. ENIAC

2) Which was the first electronics digital programmable computing device?

1. Analytical Engine
2. Difference Engine
3. Colossus
4. ENIAC

3) EDSAC stands for _____.

1. Electronic Delay Storage Automatic Calculator
2. Electronic Delay Storage Automatic Computer
3. Electronic Data Storage Automatic Calculator
4. Electronic Data Storage Automatic Computer

4) EDVAC stands for _____.

1. Electronic Discrete Variable Automatic Calculator
2. Electronic Discrete Variable Automatic Computer
3. Electronic Data Variable Automatic Calculator

4. [Electronic Data Variable Automatic Computer](#)

5) Which was the first commercial computer?

1. [Ferranti Mark 1](#)
2. [Analytical Engine](#)
3. [Difference Engine](#)
4. [Colossus](#)

6) UNIAC stands for _____.

1. [Universal Automatic Calculator](#)
2. [Universal Native Input Automatic computer](#)
3. [Universal Native Input Automatic calculator](#)
4. [Universal Automatic Computer](#)

7) ENIAC stands for _____.

1. [Electronic Numerical Integrator And Computer](#)
2. [Electronic Numerical Integrator And Calculator](#)
3. [Electronic Numerical Integrator Automatic Computer](#)
4. [Electronic Numerical Integrator Automatic Calculator](#)

8) John Mauchly and J. Presper Eckert are the inventors of _____ computer.

1. [UNIAC](#)
2. [ENIAC](#)
3. [EDSAC](#)
4. [Ferranti Mark 1](#)

9) Who invented the punch card?

1. [Charles Babbage](#)
2. [Semen Korsakov](#)
3. [Herman Hollerith](#)
4. [Joseph Marie Jacquard](#)

10) In the late _____, Herman Hollerith invented data storage on punched cards that could then be read by a machine.

1. [1860](#)

2. 1900
3. 1890
4. 1880

11) Which electronic components are used in First Generation Computers?

1. Transistors
2. Integrated Circuits
3. Vacuum Tubes
4. VLSI Microprocessor
5. ULSI Microprocessor

12) Which electronic components are used in Second Generation Computers?

1. Transistors
2. Integrated Circuits
3. Vacuum Tubes
4. VLSI Microprocessor
5. ULSI Microprocessor

13) Which electronic components are used in Third Generation Computers?

1. Transistors
2. Integrated Circuits
3. Vacuum Tubes
4. VLSI Microprocessor
5. ULSI Microprocessor

14) Which electronic components are used in Fourth Generation Computers?

1. Transistors
2. Integrated Circuits
3. Vacuum Tubes
4. VLSI Microprocessor
5. ULSI Microprocessor

15) Which electronic components are used in Fifth Generation Computers?

1. Transistors
2. Integrated Circuits
3. Vacuum Tubes
4. VLSI Microprocessor
5. ULSI Microprocessor

16) ENIAC Computer belongs to _____.

1. First Generation Computers
2. Second Generation Computers
3. Third Generation Computers
4. Fourth Generation Computers

17) VLSI Stands for _____.

1. Very Large Storage Integration
2. Very Large Storage Integrator
3. Very Large Scale Integration
4. Very Large Scale Integrator

18) ULSI Stands for _____.

1. Ultra Large Storage Integration
2. Ultra Large Scale Integration
3. Ultra Large Storage Integrator
4. Ultra Large Scale Integrator

19) _____ is used as a programming language in first generation computers?

1. FORTRAN
2. COBOL
3. BASIC
4. Machine Language

20) FORTRAN stands for _____.

1. For Translation
2. Format Transformation
3. Fork Transformation
4. Formula Translation

6. Fifth generation computers are based on

Answer & Solution

A. Artificial Intelligence

B. Programming Intelligence

C. System Knowledge

D. VVLSI

E. None of these

Answer: Option A

Solution:

Fifth generation computing devices, based on artificial intelligence, are still in development, though there are some applications, such as voice recognition, that are being used today. The use of parallel processing and superconductors is helping to make artificial intelligence a reality. Quantum computation and molecular and nanotechnology will radically change the face of computers in years to come. The goal of fifth-generation computing is to develop devices that respond to natural language input and are capable of learning and self-organization.

Answer & Solution

⍰

7. First generation of computer was based on which technology?

Answer & Solution

Save for Later

A. Transistor

B. LSI

C. VLSI

D. Vaccum Tube

E. None of these

Answer: Option D

Solution:

The first computers used vacuum tubes for circuitry and magnetic drums for memory, and were often enormous, taking up entire rooms. They were very expensive to operate and in addition to using a great deal of electricity, generated a lot of heat, which was often the cause of malfunctions.

First generation computers relied on machine language, the lowest-level programming language understood by computers, to perform operations, and they could only solve one problem at a time. Input was based on punched cards and paper tape, and output was displayed on printouts.

The UNIVAC and ENIAC computers are examples of first-generation computing devices.

Answer & Solution

⬛

8. Microprocessor was introduced in which generation of computer?

Answer & Solution

Discuss in Board (https://www.examveda.com/microprocessor-was-introduced-in-which-generation-of-computer2029)

Save for Later

A. Second Generation

B. Fourth Generation

C. Both (A) and (B)

D. Third Generation

E. Allof these

Answer: Option B

Solution:

The microprocessor brought the fourth generation of computers, as thousands of integrated circuits were built onto a single silicon chip. What in the first generation filled an entire room could now fit in the palm of the hand. The Intel 4004 chip, developed in 1971, located all the components of the

computer—from the Central processing Unit (CPU) and memory to input/output controls—on a single chip.

Tthese small computers became more powerful, they could be linked together to form networks, which eventually led to the development of the Internet. Fourth generation computers also saw the development of GUIs, the mouse and handheld devices.

Answer & Solution

⬚

9. Second generation computers are made of

Answer & Solution

Discuss in Board (https://www.examveda.com/second-generation-computers-are-made-of-2030) Save for Later

A. Vaccum Tubes

B. Transistors

C. LSI

D. VLSI

E. None of these

Answer: Option B

Solution:

Transistors replaced vacuum tubes and ushered in the second generation of computers. The transistor was invented in 1947 but did not see widespread use in computers until the late 1950s. The transistor was far superior to the vacuum tube, allowing computers to become smaller, faster, cheaper, more energy-efficient and more reliable than their first-generation predecessors. Though the transistor still generated a great deal of heat that subjected the computer to damage, it was a vast improvement over the vacuum tube. Second-generation computers still relied on punched cards for input and printouts for output.

Second-generation computers moved from cryptic binary machine language

Answer & Solution

⬚

to symbolic, or assembly, languages, which allowed programmers to specify

instructions in words. High-level programming languages were also being

developed at this time, such as early versions of COBOL and FORTRAN.

10. Which of the following memory is non-volatile?

Answer & Solution

Discuss in Board (https://www.examveda.com/which-of-the-following-memory-is-non-volatile-2031)

Save for Later

A. SRAM

B. DRAM

C. ROM

D. All of the above

E. None of these

Answer: Option C

Solution:

ROM is non-volatile memory.

1. A light sensitive device that converts drawing, printed text or

other images into digital form is

Answer & Solution

Discuss in Board (https://www.examveda.com/a-light-sensitive-device-that-converts-drawing-printed-text-or-otherimages-into-digital-form-is-2022)

Save for Later

B. Plotter

C. Scanner

D. OMR

E. None of these

A. Keyboard ⬚

Answer: Option C

No explanation is given for this question Let's Discuss on Board

(https://www.examveda.com/a-light-sensitive-device-that-convertsdrawing-printed-text-or-other-images-into-digital-form-is-2022)

Answer & Solution

2. Which protocol provides e-mail facility among different hosts?

⬚

Answer & Solution

Discuss in Board (https://www.examveda.com/which-protocol-provides-e-mail-facility-among-different-hosts-2023)

Save for Later

A. FTP

B. SMTP

C. TELNET

D. SNMP

E. None of these

Answer: Option B

Solution:

SMTP (Simple Mail Transfer Protocol) is a TCP/IP protocol used in sending and receiving e-mail. However, since it is limited in its ability to queue messages at the receiving end, it is usually used with one of two other protocols, POP3 or IMAP that let the user save messages in a server mailbox and download them periodically from the server. SMTP usually is implemented to operate over Internet port 25. Many mail servers now support Extended Simple Mail Transfer Protocol (ESMTP), which allows multimedia files to be delivered as e-mail.

Answer & Solution

3. The basic architecture of computer was developed by

A. John Von Neumann

B. Charles Babbage

C. Blaise Pascal

⬚

Answer & Solution

Discuss in Board (https://www.examveda.com/the-basic-architecture-of-computer-was-developed-by-2024)

Save for Later

D. Garden Moore

E. None of these

Answer: Option A

Solution:

In 1945, Professor J. von Neumann, who was then working at the Moore

School of Engineering in Philadelphia, where the E.N.I.A.C. had been built,

issued on behalf of a group of his co-workers, a report on the logical design of

digital computers.

Answer & Solution

4. In order to tell Excel that we are entering a formula in cell, we

must begin with an operator such as

A. $

B. @

C. +

D. =

☐

Answer & Solution

Save for Later

E. #

Answer: Option D

Solution:

In MS Excel, formulas are equations that perform various calculations in your

worksheets. Though Microsoft has introduced a handful of new functions over

the years, the concept of Excel spreadsheet formulas is the same in all

versions of Excel 2016, Excel 2013, Excel 2010, Excel 2007 and lower.

All Excel formulas begin with an equal sign (=).

Answer & Solution

5. In how many generations a computer can be classified?

Answer & Solution

Save for Later

A. 3

B. 4

C. 5

D. 6

E. None of these

⬚

Answer: Option C

Solution:

There is 5 generation of computer available till now.

1 Generation of Computer = The period of first generation: 1946-1959.

Vacuum tube based.

2 Generation of Computer = The period of second generation: 1959-1965.

Transistor based.

3 Generation of Computer = The period of third generation: 1965-1971.

Integrated Circuit based.

4 Generation of Computer = The period of fourth generation: 1971-1980.

VLSI microprocessor based.

5 Generation of Computer = The period of fifth generation: 1980-onwards.

ULSI microprocessor based.

11.	Which of the following memory is volatile ?
a.	RAM
b.	ROM
c.	EPROM
d.	PROM

View Answer Report Discuss Too Difficult!

12.	Which of the following is the fastest?
a.	CPU
b.	Magnetic Tapes and Disks
c.	Video Terminal
d.	Sensors, Mechanical Controllers

View Answer Report Discuss Too Difficult!

Answer: (a).CPU

13.	A kilobyte also referred to as KB, is equal to:
a.	1000 bytes
b.	1024 bytes
c.	2048 bytes
d.	512 bytes

View Answer Report Discuss Too Difficult!

Answer: (b).1024 bytes

14.	ROM is needed for storing an initial program called _____.
a.	Computer Startup Loader
b.	OS Version
c.	Kernel
d.	Bootstrap Loader

View Answer Report Discuss Too Difficult!

Answer: (d).Bootstrap Loader

15.	EEPROM stands for
a.	Electronically Erasable Programmable Read-Only Memory
b.	Electrically Erasable Programmable Read-Only Memory
c.	Electrically Enabled Programmable Read Only Memory
d.	Electronically Enabled Programmable Read Only Memory

View Answer Report Discuss Too Difficult!

Answer: (b).Electrically Erasable Programmable Read-Only Memory

16.	The most advanced form of ROM is?
a.	PROM
b.	RAM
c.	EEPROM
d.	Cache Memory

View Answer Report Discuss Too Difficult!

Answer: (c). EEPROM

17.	Another term for Main Memory is
a.	Hard Disk
b.	ROM
c.	Floppy Disk
d.	RAM

View Answer Report Discuss Too Difficult!

18. One MB is equal to?

a. 1024 Byte

b. 1024 KB

c. 1000 KB

d. 1024 GB

View Answer Report Discuss Too Difficult!

Answer: (b).1024 KB

19. _____ is the high speed memory used in the computer.

a. RAM

b. Hard Disk

c. Cache

d. BIOS

View Answer Report Discuss Too Difficult!

Answer: (c).Cache

20. Which of the following is true about primary storage?

a. It is a part of the CPU

b. It allows very fast access to data

c. It is relatively more expensive

d. All of the above

View Answer Report Discuss Too Difficult!

21. The process of copying data from a memory location is called

a. Writing

b. Controlling

c. Booting

d. Reading

View Answer Report Discuss Too Difficult!

Answer: (d).Reading

22. The process of putting data into a storage location is called

a. Reading

b. Writing

c. Controlling

d. Hand Shaking

View Answer Report Discuss Too Difficult!

Answer: (b).Writing

23. Memories which can be read only are called _____.

a. RAM

b. DRAM

c. ROM

d. Virtual Memory

View Answer Report Discuss Too Difficult!

Answer: (c).ROM

24.	What does DRAM stand for?
a.	Data Random Access Memory
b.	Data Random Active Memory
c.	Dynamic Random Access Memory
d.	Double Random Access Memory

View Answer Report Discuss Too Difficult!

Answer: (c).Dynamic Random Access Memory

25.	What is Cache RAM?
a.	Extra memory used for overflow from your Hard Disk
b.	A place to store secret information like passwords
c.	Its the same as your Hard Disk Drive
d.	Fast memory used for data that is accessed often

View Answer Report Discuss Too Difficult!

Answer: (d).Fast memory used for data that is accessed often

26.	What technology of memory is Cache RAM usually?
a.	DRAM
b.	Flash
c.	SRAM
d.	EEPROM

View Answer Report Discuss Too Difficult!

Answer: (c).SRAM

27.	Where is computer's BIOS stored?
a.	DRAM
b.	Flash
c.	SRAM
d.	EEPROM

Answer: (b).Flash

28.	Which company is not a microprocessor manufacturer?
a.	IBM
b.	AMD(Advanced Micro Devices)
c.	Microsoft
d.	Intel

Answer: (c). Microsoft

29.	Transformation of input into output is performed by?
a.	Peripherals
b.	Memory
c.	Storage
d.	CPU

Answer: (d).CPU

30.	The most frequently used instructions of a computer program are likely to be fetched from:
a.	the hard disk
b.	cache memory
c.	RAM
d.	None of these

View Answer Report Discuss Too Difficult!

Answer: (b). cache memory

PROM contents can be erased by exposing it to	
a.	Ultraviolet rays
b.	Infrared rays
c.	Burst of microwa
d.	Intense heat rad

View Answer Report Discuss Too Difficult!

Answer: (a).Ultraviolet rays

32.	Which of the memory is volatile memory?
a.	ROM
b.	RAM
c.	PROM
d.	EEPROM

View Answer Report Discuss Too Difficult!

Answer: (b).RAM

33.	In a RAM, information can be stored
a.	By the user, number of times
b.	By the user, only once
c.	By the manufacturer, a number of times
d.	By the manufacturer only once

Answer: (a).By the user, number of times

34.	The process of entering data into a ROM is called
a.	burning in the ROM
b.	programming the ROM
c.	changing the ROM
d.	charging the ROM

Answer: (b).programming the ROM

35.	Which of following requires refreshing?
a.	SRAM
b.	DRAM
c.	ROM
d.	EPROM

Answer: (b).DRAM

36.	The information in ROM is stored
a.	By the user any number of times.
b.	By the manufacturer during fabrication of the device.
c.	By the user using ultraviolet light.
d.	By the user once and only once.

Answer: (b).By the manufacturer during fabrication of the device.

37.	Dynamic RAM consumes _____ Power and _____ then the Static RAM.
a.	more, faster
b.	more, slower
c.	less, slower
d.	less, faster

Answer: (c).less, slower

38.	Which of the memory holds the information when the Power Supply is switched off?
a.	Static RAM
b.	Dynamic RAM
c.	EEROM
d.	None of the above

Answer: (c).EEROM

39.	What characteristic of RAM memory makes it not suitable for permanent storage?
a.	too slow
b.	unreliable
c.	it is volatile
d.	too bulky

View Answer Report Discuss Too Difficult!

Answer: (c).it is volatile

40.	Cache memory acts between
a.	CPU and RAM
b.	RAM and ROM
c.	CPU and Hard Disk
d.	None of these

View Answer Report Discuss Too Difficult!

Answer: (a).CPU and RAM

41.	Write Through technique is used in which memory for updating the data
a.	Virtual memory
b.	Main memory
c.	Auxiliary memory
d.	Cache memory

View Answer Report Discuss Too Difficult!

Answer: (d).Cache memory

42.	Generally Dynamic RAM is used as main memory in a computer system as it

a.	Consumes less power
b.	has higher speed
c.	has lower cell density
d.	needs refreshing circuitary

View Answer Report Discuss Too Difficult!

Answer: (b).has higher speed

43.	The main memory in a Personal Computer (PC) is made of
a.	cache memory
b.	static RAM
c.	dynamic RAM
d.	both a and b

View Answer Report Discuss Too Difficult!

Answer: (d).both a and b

44.	The memory unit that communicates directly with the CPU is called the
a.	main memory
b.	secondary memory
c.	shared memory
d.	auxiliary memory

View Answer Report Discuss Too Difficult!

Answer: (a).main memory

45.	Random Access Memory (RAM) is an example of

a.	Primary storage memory
b.	Secondary storage memory
c.	Cache memory
d.	None of the above

View Answer Report Discuss Too Difficult!

Answer: (a).Primary storage memory

46.	_____ is a volatile memory.
a.	ROM
b.	RAM
c.	Secondary memory
d.	None of the above

View Answer Report Discuss Too Difficult!

Answer: (b).RAM

47.	Write operations can be edited in
a.	PROM
b.	EPROM
c.	ROM
d.	All of the above

View Answer Report Discuss Too Difficult!

Answer: (b).EPROM

| 48. | If a computer has two 64 MB memory modules installed, it has a total of _____of physical memor |

a.	64 MB
b.	128 MB
c.	148 MB
d.	150 MB

View Answer Report Discuss Too Difficult!

Answer: (b).128 MB

49.	_____ is performed to increase the amount of physical memory as well as virtual memory availab
a.	Swapping
b.	Sharing
c.	Both a and b
d.	None of the above

View Answer Report Discuss Too Difficult!

Answer: (a).Swapping

50.	The register that holds the next instruction that is to be executed is called
a.	Instruction register
b.	Program control register
c.	Data register
d.	Memory Address register

View Answer Report Discuss Too Difficult!

Answer: (b).Program control register

Question: 1

Capacity of hard disk is measured in

(A) Gigabytes

(B) Megabytes

(C) Kilobytes

(D) Bytes

Question: 2

Which of the following memory is capable of operating at electronics speed?

(A) Magnetic tapes

(B) Magnetic drums

(C) Semiconductor memory

(D) Magnetic disks

Ans: C

Semiconductor memory

Question: 3

Which of the following describes the characteristics of SRAM?

(A) Based on combination of transistor and capacitor

(B) Less consumption of power

(C) More clear and more consumption of power

(D) Cheap but slow

Ans: C

More clear and more consumption of power

Question: 4

A gigabyte is equal to

(A) 1024 bytes

(B) 1024 megabytes

(C) Million megabytes

(D) Thousand kilobytes

Ans: B

1024 megabytes

Question: 5

Storage that retains its data after the power is turned off is referred to as

(A) Direct storage

(B) Sequential storage

(C) Volatile storage

(D) Non-volatile storage

Ans: D

Non-volatile storage

Through _____ information travels between components on the motherboard.

(A) Flash memory

(B) CMOS

(C) Peripherals

(D) None of these

Ans: A

Flash memory

Question: 7

Which of the following refers to the memory in computer?

(A) VGA

(B) CPU

(C) RAM

(D) All of these

View Answer

Ans: C

RAM

Question: 8

One of the class of storage device that can access storage locations in any order is

(A) DTE

(B) DDP

(C) DDE

(D) DASD

View Answer

Ans: D

DASD

Question: 9

Storage and memory differ with respect to which of the following characteristics?

(A) speed

(B) Price

(C) Reliability

(D) All of these

Ans: D

All of these

Question: 10

Which is a semiconductor memory?

(A) Static

(B) Dynamic

(C) Bubble

(D) Both a & b

Ans: D

Both a & b

1. Components that provide internal storage to the CPU are _____
a) Registers
b) Program Counters
c) Controllers
d) Internal chips
Answer: a
Explanation: The Registers are the fast storage units. They are responsible for storing intermediate computational results in the CPU. The registers can be user accessible or inaccessible.

2. Saving data and instructions to make them readily available is the job of _____
a) Storage Unit
b) Cache Unit
c) Input Unit
d) Output Unit

Answer: a

Explanation: The storage unit is responsible for storing the data. It makes the instructions readily available for additional or initial processing whenever required. The cache is a software component that stores data to serve the data requests in future. It can contain the result of some earlier computations.

3. The two basic types of memory in a computer are _____

Memory Unit

```
1._____
2._____
```
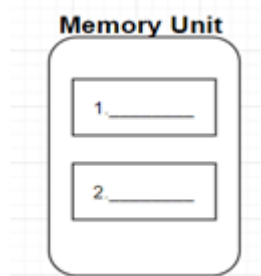
a) Primary and major
b) Primary and Secondary
c) Minor and Major
d) Main and virtual
View Answer

Answer: b

Explanation: There are two types of memories in a computer system: The Primary Memory and the Secondary Memory.
The primary memory can be directly accessed by the CPU whereas the secondary memory cannot be directly accessed.

4. Which of the following is used to hold running program instructions?
a) Primary Storage
b) Virtual Storage
c) Internal Storage
d) Minor Devices
View Answer

Answer: a

Explanation: The primary storage is responsible for holding the data, intermediate results and the results of ongoing processes or jobs. Virtual storage is the main memory storage required for saving a large amount of data for future reference. The other options are invalid.

5. Which of the following is non-volatile storage?
a) Backup
b) Secondary
c) Primary
d) Cache
View Answer

Answer: b
Explanation: The secondary storage is the non-volatile storage unit because the data is not lost when the power supply is dissipated. Primary memory is the volatile memory.

6. Which of the following is used in main memory?
a) SRAM
b) DRAM
c) PRAM
d) DDR
View Answer
Answer: b
Explanation: DRAM stands for dynamic random access memory. It is denser than SDRAM (Static) and therefore it is used in the main memory. They are in the form of semiconductor RAMs.

7. Which of the following are types of ROMs?
a) SROM & DROM
b) PROM & EPROM
c) Only one type there is no further classification
d) PROM & EROM
View Answer
Answer: b
Explanation: There are two types of Read Only Memories: PROM i.e., Programmable ROM & EPROM i.e., Erasable Programmable ROM. When only a small number of ROMs with a particular memory content is needed, PROM is used and in case of EPROM, all the contents of the storage cells must be erased before the write operation.

8. RAID stands for _____
a) Redundant array of independent disks
b) Redundant array of individual disks
c) Reusable Array of independent disks
d) Reusable array of individual disks
View Answer
Answer: a
Explanation: RAID is a multiple-disk database design which is viewed as a single logical disk by the operating system. Data are distributed across the physical drives of the array. It guarantees the recovery of data in case of data failure.

9. A non-erasable disk that stores digitized audio information is _____
a) CD
b) CD-ROM
c) DVD-R
d) DVD-RW
View Answer

Answer: a
Explanation: A compact disk stores digitized audio information. The standard system uses 12 cm disks and can record more than 60 minutes of uninterrupted playing game.

10. The first practical form of Random Access Memory was the _____
a) SSEM
b) Cathode Ray Tube
c) William's Tube
d) Thomas's Tube
View Answer
Answer: c
Explanation: The first practical form of RAM was William's Tube made in 1947. It stored data as electrically charged spots on the face of a Cathode Ray Tube.

1. _____ is the raw material used as input and _____ is the processed data obtained as output of data processing.
a) Data, Instructions
b) Instructions, Program
c) Data, Program
d) Program, Code
View Answer
Answer: a
Explanation: Data can be assumed as a raw material which, in turns after processing gives the desired output in the form of instructions. Further, a set of ordered and meaningful instructions is known as a program.

2. Which of the following is not a characteristic of a computer?
a) Diligence
b) I.Q.
c) Accuracy
d) Versatility
View Answer
Answer: b
Explanation: The Computer system has no I.Q. of its own. It does only what it is programmed to do. It cannot take decisions of its own.
A computer is diligent because it can work continuously for hours without getting any errors or without getting grumbled.
The accuracy of a computer is consistently high and its level of accuracy depends on its design. A computer can perform any task if, it can be broken down into a series of logical steps. Therefore, a computer is versatile.

3. Fill in the blank in the diagram.
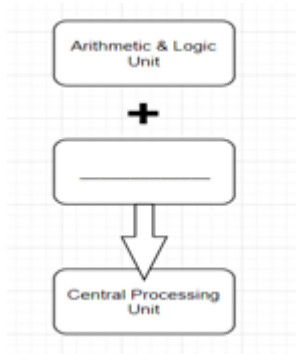
a) Input Unit
b) Memory Unit
c) Control Unit
d) I/O Unit
View Answer
Answer: c
Explanation: The control unit manages and coordinates the operations of a computer system. The ALU is responsible for performing all the arithmetic and bitwise operations . Therefore, both these units combine to form the brain of the computer ,which is the central processing unit.

4. The part of a processor which contains hardware necessary to perform all the operations required by a computer:
a) Data path
b) Controller
c) Registers
d) Cache
View Answer
Answer: a
Explanation: A processor is a part of the computer which does all the data manipulation and decision making. A processor comprises of:
A data path which contains the hardware necessary to perform all the operations. A controller tells the data path what needs to be done.
The registers act as intermediate storage for the data.

5. What does MAR stand for?
a) Main Address Register
b) Memory Access Register
c) Main Accessible Register
d) Memory Address Register
View Answer
Answer: d
Explanation: MAR is a type of register which is responsible for the fetch operation. MAR is connected to the address bus and it specifies the address for the read and write operations.

6. If the control signals are generated by combinational logic, then they are generated by a type of _____ controlled unit.
a) Micro programmed
b) Software
c) Logic
d) Hardwired
View Answer

Answer: d
Explanation: The main task of a control unit is to generate control signals. There are two main types of control units:
A hardwired control unit generates control signals by using combinational logic circuits and the Micro programmed control unit generates control signals by using some softwares.

7. Which is the simplest method of implementing hardwired control unit?
a) State Table Method
b) Delay Element Method
c) Sequence Counter Method
d) Using Circuits
View Answer

Answer: a
Explanation: There are 3 ways of implementing hardwired control unit:
A state table is the simplest method in which a number of circuits are designed based on the cells in the table.
A delay element method consists of a flowchart drawn for the circuit. A D-flip flop is used as a delay element.
A sequence counter method used k-modulo counter as a replacement for k delay elements.

8. A set of microinstructions for a single machine instruction is called _____
a) Program
b) Command
c) Micro program
d) Micro command
View Answer

Answer: c
Explanation: For every micro-operation, a set of microinstructions are written which indicate the control signals to be activated. A set of microinstructions is a micro program. The address of the next microinstruction is given by a Micro-program counter.

9. Micro-program consists of a set of microinstructions which are strings of 0s and 1s.
a) True

b) False

Answer: a

Explanation: The computer understands only binary language. So, the micro-program should have instructions which are in the form of 0s and 1s. Each output line of the micro-program corresponds to one control signal.

10. A decoder is required in case of a _____
a) Vertical Microinstruction
b) Horizontal Microinstruction
c) Multilevel Microinstruction
d) All types of microinstructions

Answer: a

Explanation: There are two types of microinstructions: Horizontal and Vertical.
In a horizontal microinstruction, each bit represents a signal to be activated whereas, in case of vertical microinstruction bits are decoded and, the decoder then produces signals.

1. Which of the following is not a type of number system?
a) Positional
b) Non-Positional
c) Octal
d) Fractional

Answer: d

Explanation: There are two main types of number systems : Positional & Non-positional.
Positional System uses digits for the representation whereas, non-positional number systems use certain symbols for the representation of numbers. Octal is a type of positional number systems with base 8.

2. How is the number 5 represented in non-positional number system?
a) IIIII
b) 5
c) V
d) v

Answer: a

Explanation: In a non-positional number system, 1 is represented as I, 2 as II, 3 as III, 4 as IIII and therefore, 5 is represented as IIIII. This number system uses symbols for the representation of digits.

3. The base is the total number of digits in a number system.
a) True
b) False
View Answer
Answer: a
Explanation: The statement is true. In a positional number system, base is the number of digits the system comprises. For example, a binary number system comprises of only 2 digits, 0 and 1, therefore its base is 2. Similarly, the decimal system comprises 10 digits 0 to 9, therefore its base is 10.

4. The LSB and MSB of 1243247 are ____ and ____
a) 1, 7
b) 4, 7
c) 7, 1
d) 4, 1
View Answer
Answer: c
Explanation: The LSB or the least significant bit is the rightmost digit at the zeros position. The MSB or the most significant bit is the leftmost digit.

5. A device that uses positional notation to represent a decimal number.
a) Abacus
b) Calculator
c) Pascaline
d) Computer
View Answer
Answer: a
Explanation: Abacus was used to doing arithmetic calculations around 2500 years ago. Pascaline was the pascal's calculator by Blaise Pascal invented for doing laborious calculations.

6. The 2's complement of 5 is _____
a) 1011
b) 0101
c) 1010
d) 0011
View Answer
Answer: a
Explanation: The 2's complement is obtained by adding 1 to the 1s complement of a number. The 1's complement of 5(0101) is 1010. For 2's complement : 1010+1=1011.

7. What does BCD stand for?
a) Bitwise coded decimal
b) Binary coded decimal

c) Binary converted decimal
d) Bitwise Converted Decimal
View Answer
Answer: b
Explanation: BCD is the binary coded decimal form of representation of numbers in 4 bits.E.g. The BCD representation of 5 is 0101. BCD representation of 22 is 00100010.

8. 1 zettabyte = _____
a) 1024 TB
b) 1024 EB
c) 1024 ZB
d) 1024 PB
View Answer
Answer: b
Explanation: 1 ZB=1024 EB(exabyte)
1 EB=1024PB(petabyte)
1 YB(yottabyte)=1024ZB.

9. Perfrom BCD addition: 2+3= _____
a) 0010
b) 0011
c) 0101
d) 1010
View Answer
Answer: c
Explanation: BCD of 2 =0010
BCD of 3=0011
0010+0011=0101
Therefore, 2+3=0101(5).

11. ASCII stands for _____
a) American standard code for information interchange
b) American scientific code for information interchange
c) American scientific code for international interchange
d) American standard code of international interchange
View Answer
Answer: a
Explanation: ASCII is an encoding standard which is used for communications worldwide. ASCII codes are allotted to digits, special characters and alphabets for data communication purpose.

1. The value of base in a decimal number system is _____
a) 8
b) 2
c) 10

d) 16

Answer: c

Explanation: A decimal number system consists of 10 digits from 0 to 9.
The definition of base describes it as a quantity to represent the number of digits present in that particular number system.
Therefore, here, the base is 10.

2. Convert : $(110)_2 = ($ __ $)_{10}$.
a) 4
b) 5
c) 6
d) 9

Answer: c

Explanation: The base 2 represents that the number is binary ,whereas, the base 10 represents that it is to be converted to the decimal format.
Conversion: $2^2 * 1 + 2^1 * 1 + 2^0 * 0 = 6$.

3. The 2's complement of 15 is _____
a) 0000
b) 0001
c) 0010
d) 0100

Answer: b

Explanation: 2's complement is obtained by adding 1 to the 1's complement of the number.
Here, Binary of 15 = 1111
1's complement of 15= 0000
2's complement of 15= 0000+1=0001.

4. Another name for base is _____
a) root
b) radix
c) entity
d) median

Answer: b

Explanation: Another name for base is radix. Base refers to the number of digits that a particular number system consists of.
The base of decimal number system is 10, binary is 2 and so on.

5. The decimal equivalent of $(0.101)_2$ will be _____
a) 0.5
b) 0.625
c) 0.25
d) 0.875
View Answer
Answer: b
Explanation: Since the base is 2 , it could be easily guessed that the number is binary. Conversion: $2^{-1} * 1 + 2^{-2} * 0 + 2^{-3} * 1 = 0.625$.

6. The signed magnitude for -3 will be _____
a) 00000011
b) 10000011
c) 11111101
d) 11111100
View Answer
Answer: b
Explanation: Signed Magnitude of a number is a representation to determine if the number is positive or negative.
If the MSB of a number is 0, the number is positive, else if it is 1 the number is negative.
Here, +3 = 00000011
-3= 100000011.

7. A number with both integer and a fractional part has digits raised to both positive and negative powers of 2 in a decimal number system.
a) True
b) False
View Answer
Answer: b
Explanation: In a decimal number system, a number with both integer and a fractional part has digits raised to both positive and negative powers of 10 and not 2.
e.g. $22.34 = 2 * 10^1 + 2 * 10^0 + 3 * 10^{-1} + 4 * 10^{-2}$.

8. The hexadecimal representation of 14 is _____
a) A
b) F
c) D
d) E
View Answer
Answer: d
Explanation: The hexadecimal representations are as follows:
10 : A
11 : B

12 : C
13 : D
14 : E
15 : F.

9. Which of the following is not a decimal number?
a) 114
b) 43.47
c) 99.9A
d) 10101
View Answer
Answer: c
Explanation: All the numbers except 99.9A are decimal numbers.
This number has a hexadecimal component A in it, therefore , it is not a valid decimal number.
The decimal equivalent of A is 10.

10. Select the incorrect option:
a) $(101)_{10}$ = $(1100101)_2$
b) G is valid in hexadecimal system.
c) C represents 12
d) The base of a decimal number system is 10.
View Answer
Answer: b
Explanation: G is not a valid hexadecimal number. In this system, only representations from A to E are used to represent the numbers from 10 to 15. The base of the hexadecimal number system is 16

1. Which of the following is not a positional number system?
a) Roman Number System
b) Octal Number System
c) Binary Number System
d) Hexadecimal Number System
View Answer
Answer: a
Explanation: The Roman number system isn't a positional number system since it uses symbols to represent numbers.
The octal number system uses digits from 0-7, the binary number system uses digits from 0-1 whereas, the hexadecimal number system uses digits from 0-15.

2. The value of radix in binary number system is _____
a) 2
b) 8
c) 10

d) 1

Answer: a

Explanation: In a binary number system, the value of base or radix is 2. The binary system uses only two digits for the representation of numbers, therefore its base id has chosen to be 2.

3. The binary equivalent of the decimal number 10 is _____
a) 0010
b) 10
c) 1010
d) 010

Answer: c

Explanation: To get the binary equivalent of any number, we need to divide the number by 2 and obtain the remainders as :

```
10/2=5 rem=0
 5/2=2 rem=1
 2/2=1 rem=0
 1/2=0 rem=1
```

We then write the remainders in the reverse order as 1010 .

4. A computer language that is written in binary codes only is _____
a) machine language
b) C
c) C#
d) pascal

Answer: a

Explanation: Machine Language is written in binary codes only. It can be easily understood by the computer and is very difficult for us to understand. A machine language, unlike other languages, requires no translators or interpreters.

5. The octal equivalent of 1100101.001010 is _____
a) 624.12
b) 145.12
c) 154.12
d) 145.21

Answer: b

Explanation: The octal equivalent is obtained by grouping the numbers into three, from right to left before decimal and from right to left after the decimal place.

Here,

1 100 101 . 001 010

↓

1 4   5 . 1   2

i.e. 145.12 is the octal equivalent of the number.

i.e. 145.12 is the octal equivalent of the number.

6. The input hexadecimal representation of 1110 is _____
a) 0111
b) E
c) 15
d) 14
View Answer
Answer: b
Explanation: In hexadecimal number system, 1110 = 15, which is represented by the alphabet E.
Some representations are:
A 10
B 11
C 12
D 13
E 14
F 15.

7. A bit in a computer terminology means either 0 or 1.
a) True
b) False
View Answer
Answer: a
Explanation: A bit stands for a binary digit. A binary digit can have only two digits i.e. 0 or 1. A binary number consisting of n-bits is called an n-bit number.

8. Convert the binary equivalent 10101 to its decimal equivalent.
a) 21
b) 12
c) 22
d) 31
View Answer
Answer: a
Explanation: To convert a binary number to its decimal equivalent follow these steps :

$2^4 * 1 + 2^3 * 0 + 2^2 * 1 + 2^1 * 0 + 2^0 * 1 = 21$.
Therefore, the answer is 21.

9. Which of the following is not a binary number?
a) 1111
b) 101
c) 11E
d) 000
View Answer
Answer: c
Explanation: A binary number can have only two possible digits, 0 and 1. In the third option, there is an alphabet E present which makes it an invalid binary number. Alphabets are only allowed in the hexadecimal number system.

10. Which of the following is the correct representation of a binary number?
a) $(124)_2$
b) 1110
c) $(110)^2$
d) $(000)_2$
View Answer
Answer: d
Explanation: The binary numbers should comprise only two digits 0 and 1. Also, for the base, the value should be 2 and it should be written as a subscript enclosing the entire number. Here, the fourth option gives the correct representation.

1. What could be the maximum value of a single digit in an octal number system?
a) 8
b) 7
c) 6
d) 5
View Answer
Answer: b
Explanation: The maximum value in any number system is one less than the value of the base. The base in an octal number system is 8, therefore, the maximum value of the single digit is 7. It takes digits from 0 to 7.

2. In a number system, each position of a digit represents a specific power of the base.
a) True
b) False
View Answer
Answer: a
Explanation: In a number system, every digit is denoted by a specific power of base. Like in an octal system, consider the number 113, it will be represented as :
$8^2 * 1 + 8^1 * 1 + 8^0 * 3$.

3. The maximum number of bits sufficient to represent an octal number in binary is
_____
a) 4
b) 3
c) 7
d) 8
View Answer

Answer: b
Explanation: The octal number system comprises of only 8 digits. Hence, three bits
($2^3 = 8$) are sufficient to represent any octal number in the binary format.

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4. The binary number 111 in octal format is _____
a) 6
b) 7
c) 8
d) 5
View Answer

Answer: b
Explanation: Certain binary to octal representations are :
000=0
001=1
010=2
011=3
100=4
101=5
110=6
111=7.

5. Convert $(22)_8$ into its corresponding decimal number.
a) 28
b) 18
c) 81
d) 82
View Answer

Answer: b
Explanation: To convert an octal number to decimal number:
$8^1 * 2 + 8^0 * 2 = 16 + 2 = 18$.
Hence, the decimal equivalent is 18.

6. The octal equivalent of the binary number $(0010010100)_2$ is _____
a) 422
b) 242
c) 224

d) 226

Answer: c

Explanation: To obtain the octal equivalent, we take numbers in groups of 3, from right to left as :

```
000   010   010    100

  0    2     2      4      =   (224)<sub>8</sub>.
```

7. Octal subtraction of $(232)_8$ from $(417)_8$ will give _____
a) 165
b) 185
c) 815
d) 516

Answer: a

Explanation: Octal subtraction is done as follows:

417

– 232

_____

165

The octal subtraction is the same as that of any other number system. The only difference is, like in a decimal number system, we borrow a group of 10, in a binary system we borrow a group of 2, in an octal number system, we borrow in groups of 8.

8. The 1's complement of 0.101 is _____
a) 1.010
b) 0.010
c) 0.101
d) 1.101

Answer: a

Explanation: The 1's complement of a number is obtained by reversing the bits with value 1 to 0 and the bits with value 0 to 1.
Here, 0.101 gets converted to 1.010 in its 1's complement format.

9. Convert $(5401)_8$ to hexadecimal.
a) A01
b) A02
c) B01
d) C01

Answer: c

Explanation: To convert octal to hexadecimal, we first write binary format of the number and then make groups of 4 bits from right to left, as follows:

```
 5     4      0      1
101   100    000    001    (octal -> binary)
1011    0000    0001    ( groups of 4)
B       0       1       ( hexadecimal equivalent)
```
Therefore, the hexadecimal equivalent is (B01)$_{16}$.

10. Express the decimal format of the signed binary number (10010)$_2$.
a) 2
b) 12
c) -12
d) -2
View Answer
Answer: d
Explanation: The first bit is the sign bit whereas the rest of the bits are magnitude bits. So the number is: 0010 = 2^1 * 1 =2
But, the sign bit is 1, Therefore the answer is : (-2)$_{10}$.

1. What does the symbol D represent in a hexadecimal number system?
a) 8
b) 16
c) 13
d) 14
View Answer
Answer: c
Explanation: The symbols A, B, C, D, E and F represent 10, 11, 12, 13, 14 and 15 respectively in a hexadecimal system. This system comprises of 15 numbers in total: digits from 0-9 and symbols from A to F.

2. ABC is a valid hexadecimal number.
a) True
b) False
View Answer
Answer: a
Explanation: In a hexadecimal number system, alphabets are used for the representation of numbers from 10 to 15. Here, A represents 10, B represents 11 and C represents 12. Therefore, it is a valid hexadecimal number.

3. The maximum number of bits sufficient to represent a hexadecimal number in binary:
a) 4
b) 3
c) 7
d) 8
View Answer

Answer: a
Explanation: The hexadecimal number system comprises of only 15 symbols: 10 digits and 5 symbols. Hence, three bits (2^4 = 16) are sufficient to represent any hexadecimal number in the binary format.

4. The binary number 1110 in hexadecimal format is _____
a) 6
b) E
c) 14
d) 15
View Answer
Answer: b
Explanation: Certain binary to hexadecimal representations are :
1010=A
1011=B
1100=C
1101=D
1110=E
1111=F.

5. Convert $(52)_{16}$ into its decimal equivalent.
a) 28
b) 83
c) 80
d) 82
View Answer
Answer: d
Explanation: To convert a hexadecimal number to decimal number:
16^1 * 5 + 16^0 * 2 = 80 + 2 = 82
Hence, the decimal equivalent is 82.

6. The hexadecimal equivalent of the binary number $(0010010100)_2$ is :
a) $(0B4)_{16}$
b) $(0A4)_{16}$
c) 224
d) 0114
View Answer
Answer: a
Explanation: To obtain the octal equivalent, we take numbers in groups of 3, from

right to left as :

0000   1001   0100

↓

0   B   4   = $(0B4)_{16}$.

7. Hexadecimal Addition of $(3A5)_{16}$ and $(1B2)_{16}$ will give :
a) 557
b) 185
c) 815
d) 516
View Answer
Answer: a
Explanation: Octal subtraction is done as follows:
3A5
+ 1B2
_____
557
In hexadecimal addition of alphabets, we add the corresponding numbers they represent and then subtract the result from 16, then generate a carry of 1 to the next set of numbers.
Here, 5+2=7
A+B=10+11=21-16=5
3+1+1(carry)=5.

8. The 2's complement of 10.11 :
a) 10
b) 0.010
c) 01.01
d) 10.01
View Answer
Answer: a
Explanation: The 1's complement of a number is obtained by reversing the bits with value 1 to 0 and the bits with value 0 to 1. Here, 10.11 gets converted to 01.00 in its 1's complement format. Further, to convert 1's complement into 2's, we add 1 to the result. Here, 01.00+1=10.00.

9. Convert $(6532)_8$ to hexadecimal.
a) $(A01)_{16}$
b) $(A02)_{16}$
c) $(D5A)_{16}$
d) $(C01)_{16}$
View Answer

Answer: c
Explanation: To convert octal to hexadecimal, we first write binary format of the number and then make groups of 4 bits from right to left, as follows:

```
 6   5   3   2
110 101 011 010    (octal -> binary)
1101  0101  1010   (groups of 4)
 D    5     A      (hexadecimal equivalent)
```

Therefore, the hexadecimal equivalent is $(D5A)_{16}$.

10. What do we call the point(decimal) in any hexadecimal number of the form 111.A3?
a) radix
b) hexadecimal point
c) decimal
d) octal point
View Answer
Answer: b
Explanation: The decimal is often referred to as the hexadecimal point in hexadecimal representation of numbers.
It is referred to as the octal point in octal numbers.

The tangible part of a computer system is called

(A) Input data

(B) Output data

(C) Hardware

(D) Software

View Answer

Ans: C

Hardware

Question: 2

Binary coded decimal (BCD) numbers express each digit is a

(A) Bit

(B) Byte

(C) Nibble

(D) All of these

Ans : C

Nibble

Question: 3

Hexadecimal numbers are a mixture of

(A) Octal and decimal numbers

(B) Binary and octal numbers

(C) Letters and decimal digits

(D) Binary and decimal numbers

Ans: C

Letters and decimal digits

Question: 4

ASCII code is an

(A) Alpha numeric code

(B) Cyclic code

(C) Numeric code

(D) Alphabet code

Ans: A

Alpha numeric code

Question: 5

Icons are

(A) Typed commands

(B) Verbal commands

(C) Imaginary commands

(D) Picture commands

<u>View Answer</u>

Ans: D

Picture commands

Question: 6

The parity bit is added for which purpose?

(A) Control key

(B) Error detection

(C) Indexing

(D) Coding

<u>View Answer</u>

Ans: B

Error detection

Question: 7

ASCII Code is a 7 bit code for

(A) Other symbols

(B) Numbers

(C) Letters

(D) All of these

<u>View Answer</u>

Ans: D

All of these

Question: 8

The decimal equivalent of binary number 0.0111 is

(A) 4.375

(B) 0.4375

(C) 0.5375

(D) -0.4375

Ans: B

0.4375

Question: 9

The two's complement in binary system is useful for expressing

(A) Both positive and negative numbers

(B) Positive numbers

(C) Negative numbers

(D) None of these

Ans: C

Negative numbers

Question: 10

The sum of weights in self complementing BCD code must be

(A) 7

(B) 8

(C) 9

(D) 10

Ans: C

9

Question: 11

The binary number 10011101 is equal to the decimal number

(A) 9E

(B) 9F

(C) 9D

(D) FF

Ans: C

9D

Question: 12

Which of the following is most resistant to electrical and noise interference?

(A) STP

(B) UDP

(C) Fiber

(D) Coax

Ans: C

Fiber

Question: 13

The main advantage of hexadecimal numbers is the case of conversion from hexadecimal to _____ and vice versa.

(A) ASCII

(B) BCD

(C) Binary

(D) Decimal

View Answer

Ans: C

Binary

Question: 14

The Gray code for decimal 7 is

(A) 0111

(B) 1011

(C) 0100

(D) 0101

View Answer

Ans: C

0100

Question: 15

A microprocessor with 12 addresses lines capable of address lines.

(A) 1024 locations

(B) 2048 locations

(C) 4096 locations

(D) Buck location

Ans: C

4096 locations

- _answer1)

A hexadecimal number is represented by

A)
○ three digits **clear**

B)
○ four binary digits**done**

C)
○ four digits **clear**

D)
○ All of these**clear**

E)
○ None of these**clear**

View Solution play_arrow

- question_answer2)

Decimal number system is the group of .... numbers.

A)
○ 0 or 1 **clear**

B)
○ 0 to 9**done**

C)
○ 0 to 7

D)
○ 0 to 9 and A to F

E)
○ None of these

View Solution play_arrow

- question_answer3)

Hexadecimal number system has .... base.

A)
○ 2 **clear**

B)

○ 8 **clear**

C)

○ 10 **clear**

D)

○ 16**done**

E)

○ None of these

View Solution play_arrow

- question_answer4)

Hexadecimal number system consists of

A)

○ 0 to 9 **clear**

B)

○ A to F**clear**

C)

○ Both a and b **done**

D)

○ Either a or b

E)

○ Neither a nor b

View Solution play_arrow

- question_answer5)

Which of the following statements is true?

A)

○ 1 gigabyte is equivalent to 1024 kilobyte**clear**

B)

○ Mb stands for megabyte**clear**

C)

○ Octal number system having 8 digits**done**

D)

○ Decimal number system cannot contain binary digits

E)

○ None of the above

View Solution play_arrow

- question_answer6)

The number system based on '0' and '1' only, is known as

A)
○ binary system   **done**

B)
○ barter system

C)
○ number system

D)
○ hexadecimal system

E)
○ special system

View Solution play_arrow

- question_answer**7)**

What is the value of the binary number 101?

A)
○ 3   **clear**

B)
○ 5   **done**

C)
○ 6

D)
○ 101

E)
○ 7

View Solution play_arrow

- question_answer**8)**

Which of the following is octal number equivalent to binary number (110101)2?

A)
○ 12   **clear**

B)
○ 65   **done**

C)
○ 56

D)
○ 1111

E)
○ 00

View Solution play_arrow

- question_answer**9)**

Which of the following is hexadecimal number equivalent to binary number (1111 1001)2?

A)
○ 9F   **clear**

B)
○ FF **clear**

C)
○ 99   **clear**

D)
○ F9**done**

E)
○ EC

View Solution play_arrow

- question_answer10)

Which of the following is a binary number equivalent to octal number (.431)8?

A)
○

(100011001)2

   clear

B)
○

(.100011001)2

done

C)
○

(100110100)2

D)
○

(.100110001)2

E)
○

(1000.11001)2

View Solution play_arrow

- question_answer11)

Which of the following is an octal number equal to decimal number

$(896)_{10}$

?

A)
○ 0061   **clear**

B)
○ 6001 **clear**

C)
○ 1006   **clear**

D)
○ 1600 **done**

E)
○ 0601

View Solution play_arrow

- question_answer12)

Which of the following is invalid hexadecimal number?

A)
○ AOXB   **done**

B)
○ A0F6

C)
○ 4568

D)
○ ACDB

E)
○ 60AC

View Solution play_arrow

- question_answer13)

Which of the following is a hexadecimal number equal to 3431 octal number?

A)
○ 197   **clear**

B)
○ 917 **clear**

C)
○ 791   **clear**

D)
○ 971 **clear**

E)

○ 719**done**

View Solution play_arrow

- question_answer14)

There are how many types of number system?

A)
○ One

B)
○ Two

C)
○ Three   **clear**

D)
○ Four**done**

E)
○ Five

View Solution play_arrow

- question_answer15)

How many values can be represented by a single byte?

A)
○ 4   **clear**

B)
○ 16**clear**

C)
○ 64   **clear**

D)
○ 256**done**

E)
○ 512

View Solution play_arrow

- question_answer16)

Modern computers represent characters and numbers internally using one of the following number systems.

A)
○ Penta   **clear**

B)
○ Octal**clear**

C)

○ Hexa **clear**

D)
○ Septa**clear**

E)
○ Binary**done**

View Solution play_arrow

- question_answer17)

Which of the following is not a computer code?

A)
○ EBCDIC **clear**

B)
○ ASCII**clear**

C)
○ CISC **done**

D)
○ UNICODE

E)
○ None of these

View Solution play_arrow

- question_answer18)

The coding system allows non-English characters and special characters to be represented

A)
○ ASCII **clear**

B)
○ UNICODE**done**

C)
○ EBCDIC

D)
○ All of these

E)
○ None of these

View Solution play_arrow

- question_answer19)

MSD refers as

A)

○ Most Significant Digit **done**

B)
○ Many Significant Digit

C)
○ Multiple Significant Digit

D)
○ Most Significant Decimal

E)
○ None of the above

View Solution play_arrow

- question_answer20)

Binary system is also called

A)
○ base one system **clear**

B)
○ base two system **done**

C)
○ base system

D)
○ binary system

E)
○ None of these

View Solution play_arrow

- question_answer21)

The negative numbers in the binary system can be represented by

A)
○ Sign magnitude **clear**

B)
○ 1's compliment **clear**

C)
○ 2's compliment **clear**

D)
○ All of these **done**

E)
○ None of these

View Solution play_arrow

- question_answer22)

Today's mostly used coding system is/are

A)
   ○   ASCII

B)
   ○   EBCDIC

C)
   ○   BCD

D)
   ○   Both a and b **done**

E)
   ○   All of these **clear**

View Solution play_arrow

- question_answer**23)**

$(1010)_2$

equivalent decimal number is

A)
   ○   8   **clear**

B)
   ○   9 **clear**

C)
   ○   10   **done**

D)
   ○   11 **clear**

E)
   ○   12

View Solution play_arrow

- question_answer**24)**

The digits of the binary system are called

A)
   ○   bytes

B)
   ○   bits **done**

C)
   ○   nibbles   **clear**

D)
   ○   number **clear**

E)

○ None of these **clear**

View Solution play_arrow

- question_answer**25)**

Data representation is based on the......... number system, which uses two numbers to represent all data

A)
○ binary   **done**

B)
○ biometric

C)
○ bicentennial

D)
○ byte

E)
○ None of these

View Solution play_arrow

- question_answer**26)**

Conversion of decimal number $(42)_{10}$

to its octal number equivalent is

A)
○

$(57)_8$

clear

B)
○

$(42)_8$

clear

C)
○

$(47)_8$

clear

D)
○

$(52)_8$

done

E)
○ None of these

View Solution play_arrow

- question_answer27)

Most commonly used codes for representing bits are

A)
○ ASCII   **clear**
B)
○ BCD**clear**
C)
○ EBCDIC   **clear**
D)
○ All of these**done**
E)
○ None of these

View Solution play_arrow

- question_answer28)

Determine the octal equivalent of
$(432267)_{10}$

A)
○
$(432267)_8$

clear
B)
○
$(346731)_8$

clear
C)
○
$(2164432)_8$

clear
D)
○
$(123401)_8$

clear
E)

○ None of these**done**

- question_answer**29)**

The method used for the conversion of octal to decimal fraction is

A)
○ digit is divided by-8**clear**

B)
○ digit is multiplied by the corresponding power of 8**done**

C)
○ digit is added with-8**clear**

D)
○ digit is subtracted with-8**clear**

E)
○ None of the above**clear**

- question_answer**30)**

Conversion of decimal number
$(99)_{10}$

to its binary number equivalent is

A)
○

$(1100011)_2$

done

B)
○

$(100011)_2$

clear

C)
○

$(1110001)_2$

clear

D)
○

$(1111000)_2$

clear

E)

○ None of these**clear**

View Solution play_arrow

- question_answer**31)**

Conversion of octal number
$(3137)_8$

to its decimal equivalent is

A)
○
$(1631)_{10}$

done

B)
○
$(1632)_{10}$

C)
○
$(1531)_{10}$

D)
○
$(1931)_{10}$

E)
○ None of these

View Solution play_arrow

- question_answer**32)**

LSD stands for

A)
○ Long Significant Digit**clear**

B)
○ Least Significant Digit**done**

C)
○ Large Significant Digit

D)
○ Longer Significant Decimal

E)
○ None of the above

View Solution play_arrow

- question_answer**33)**

Determine the decimal equivalent of $(456)_8$

A)
○
$(203)_{10}$

clear

B)
○
$(302)_{10}$

clear

C)
○
$(400)_{10}$

clear

D)
○
$(402)_{10}$

clear

E)
○ None of these**done**

View Solution play_arrow

- question_answer**34)**

Conversion of decimal number $(93)_{10}$

to hexadecimal number is

A)
○
$(2D)_{16}$

clear

B)
○
$(5D)_{16}$

done

C)

1 Octal equivalent of hexadecimal code, F3A1 is
A 173101
B 176541
C 171641
D 158661

View Answer Comment

Answer: Option [C]

1111 0011 1010 0001 i.e. F3A1

001 111 001 110 100 001 i.e. 171= 641

=20 =20
2 An 8-bit binary word $b_7b_6b_5b_4b_3b_2b_1b_0$ as an integer x ran= ges from =20
A -128 to 128
B -128 to 127
C -256 to 256
D None of the above

View Answer Comment

Answer: Option [B]
=20
=20
3 The binary equivalent of the decimal number 0.4375 is =20
A 0.0111
B 0.1011
C 0.1100
D 0.1010

View Answer Comment

Answer: Option [A]

=20 =20
4 Decimal equivalent of the binary number 101001.1011 is =20
A 41.0875
B 40.6875
C 41.6875
D 40.0875

View Answer Comment

Answer: Option [C]

$1 \times 2^5 + 0 \times 2^4 + 1 \times 2^3 + 0 \times 2^{2} + 0 \times 2^1 + 1 \times 2^0 . 1 \times 2^{-1} + 0 \times 2^{-2} + 1 \times 2^{-3} + 1 \times 2^{-4}$ =3D 41.6875

=20 =20
5 Octal number system is
A A positional system with weights 0 to 9
B A positional system with weights 0 to 8
C A positional system with weights 0 to 7
D A non positional system with weights 0 to 7

View Answer Comment

Answer: Option [C]

A positional system with weights 0 to 7

6 The sum of two hexadecimal numbers 23D and 9AA gives the hexadecimal n=
umber
A AF7
B BF6
C BE7
D BE5

View Answer Comment

Answer: Option [C]

23D -> 0010 0011 1101 and 9AA -> 1001 1010 1010

So the sum of two hexadecimal numbers is 1011 1110 0111 i.e. BE7

=20 =20
7 When the value 37H is divide by 17H, the remainder is =20
A C0 H

B 03 H
C 07 H
D 09 H

Answer: Option [D]

37 H means 00110111

17 H means 00010111

On division of 37 H by 17 H the remainder is 09 H

=20
=20
8 The numbers in the range -23 to +31 is represented by the minimum numb= er of bits : =20
A 6
B 8
C 7
D 5

Answer: Option [A]

31 can be represented by 5 bits and the 1 bit needed for sign bit.

=20 =20
9 The largest integer that can be represented in signed-2's complement re= presentation using n bits is =20
A 2_{n-1}
B 2^n
C $2^{n-1}-1$
D 2^n-1

Answer: Option [D]

2^n-1 is the largest integer in 2's complement representati= on using n bits.

=20 =20
10 The least negative value that the product of two 8-bit two's complement= numbers can take is =20

A -2^{14}
B -2^{15}
C -2^{10}
D -2^{12}

[View Answer Comment](#)

Answer: Option [B]

-2^{15} is the least negative value for the two 8-bit 2's co= mplement numbers.

This set of Computer Fundamentals Multiple Choice Questions & Answers (MCQs) focuses on "ASCII".

1. What does ASCII stand for?
a) American Standard Code for Information Interchange
b) American Scientific Code for Information Interchange
c) American Scientific Code for Interchanging Information
d) American Standard Code for Interchanging Information
View Answer
Answer: a
Explanation: The ASCII codes are used to represent the bits into symbols and vice versa. ASCII is the American Standard Code which is used to exchange information.

2. The decimal representation for the character '!' in ASCII is _____
a) 31
b) 32
c) 33
d) 34
View Answer
Answer: c
Explanation: The decimal representation of a few basic characters are:
33 : !
34 : "
35: #
36 :$.

3. The two types of ASCII are _____ and _____
a) ASCII-4 and ASCII-8
b) ASCII-8 and ASCII-16
c) ASCII-7 and ASCII-8

d) ASCII-4 and ASCII-16

Answer: c

Explanation: The two types of ASCII are ASCII-7 and ASCII-8. ASCII-7 uses 7 bits for the representation of numbers and ASCII-8 uses 8-bits.

4. Any set of digits or alphabets are generally referred as _____
a) Characters
b) Symbols
c) Bits
d) Bytes

Answer: a

Explanation: We refer to the digits and alphabets generally as characters. A character is generally a unit of information in computers.

5. The first 128 characters are the same in both the types of ASCII i.e. ASCII-7 and ASCII-8.
a) True
b) False

Answer: a

Explanation: There are two types of ASCII codes: ASCII-7 and ASCII-8. ASCII-7 uses 7 bits to represent a number whereas ASCII-8 uses 8-bits to represent a number.

6. The number of characters that can be represented in ASCII-8 are _____
a) 128
b) 256
c) 32
d) 64

Answer: b

Explanation: ASCII-8 can represent 256 different characters. ASCII-8 uses 8-bits for the representation of numbers i.e. it can represent 2^8 = 256 different characters.

7. The zone of alphabetic characters from A to O in ASCII is _____
a) 1000
b) 0100
c) 0010
d) 0001

Answer: b

Explanation: The zone used by ASCII for alphabets is 0100. For e.g. A is represented

as 0100(zone)0001(digit). The hex equivalent is 41 for A. The zone used by numbers is 0011.

8. The representation of the number 8 in binary in ASCII-8 format _____
a) 00111000
b) 01001000
c) 1000
d) 00011000
View Answer
Answer: a
Explanation: The ASCII-8 format will have 8 bits. The zone for the character 8 is 0011 and the digit is 1000. Therefore, its representation is 00111000.

9. Binary Coding for the letter X is _____
a) 01011000
b) 00111000
c) 10001000
d) 00010100
View Answer
Answer: a
Explanation: The binary coding for the letter X is 01011000. Here, 0101 is the zone whereas 1000 is the digit. The alphabets from P to Z have the zone 0101.

10. Express the ASCII equivalent of the signed binary number $(00110010)_2$.
a) 2
b) 1
c) A
d) ,
View Answer
Answer: a
Explanation: The ASCII characters for the remaining options are:
1 : 00110001
A : 01000001
, : 00101100.

1. The numbers used to represent numeric values in EBCDIC are _____
a) zoned
b) unsigned
c) packed
d) eb
View Answer
Answer: a
Explanation: Zoned numbers represent the numeric values under EBCDIC (Extended

Binary Coded Decimal Interchange Code). In zoned format, there is only one digit per byte.

2. Unicode provides a consistent way of encoding multilingual plain text.
a) True
b) False
View Answer

Answer: a
Explanation: Unicode defines codes for characters used in all major languages of the world.
It is a coding system which supports almost all the languages. It defines special codes for different characters, symbols, diacritics, etc.

3. Which of the following is not a type of numeric value in zoned format?
a) Positive
b) Negative
c) Double
d) Unsigned
View Answer

Answer: c
Explanation: The zoned format can represent numeric values of type Positive, negative and unsigned numbers. A sign indicator is used in the zone position of the rightmost digit.

4. The sign indicator of unsigned numbers is _____
a) C
b) D
c) F
d) X
View Answer

Answer: c
Explanation: A sign indicator is used in the zone position of the rightmost digit. A sign indicator C is used for positive, D for negative and F is used for negative numbers.

5. The EBCDIC value of the number 345 in zoned format is _____
a) F3F4F5
b) E3E4E5
c) F3F4C5
d) F3F4D5
View Answer

Answer: a
Explanation: F is used for the representation of unsigned numbers therefore, F3F4F5 represents 345. F3F4C5 represents +345 . F3F4D5 represents -345.

6. Which of the following is a valid encoding format?
a) UTF-1
b) UTF-8
c) UTF-A
d) UTF-4
View Answer
Answer: b
Explanation: The various encoding formats are UTF-8, UTF-16 and UTF-32. UTF stands for Unicode Transformation Format. It is basically an encoding system that supports all languages.

7. _____ defines the assigned ordering among the characters used by the computer.
a) Unicode
b) Collating Sequence
c) Accumulation
d) Sorting
View Answer
Answer: b
Explanation: Collating sequence is the term used for ordering among characters. It may vary depending upon the type of code used by a computer.

8. The sorting sequence of the strings A1,23,1A will be _____
a) 23 > A1 > 1A
b) 23 < 1A > A1
c) A1 > 1A > 23
d) A1 < 1A < 23
View Answer
Answer: d
Explanation: The sorting order is A1, 1A, 23. Numeric characters are given a greater preference in EBCDIC as compared to the alphabets.

9. The default character coding in HTML-5 is _____
a) UTF-8
b) UTF-16
c) UTF-4
d) UTF-32
View Answer
Answer: a
Explanation: HTML5 which is the hypertext markup language generally uses the UTF-8 format as its default encoding. Unicode covers all the characters and symbols in all the different languages.

10. Numbers used in packed decimal format can be used for _____ operations.
a) logical

b) relational
c) arithmetic
d) bitwise
Answer: c
Explanation: The packed numbers can be used for arithmetic operations. The packed numbers also require the lesser number of bytes as compared to zoned numbers.

1. The maximum value that can be specified to the size of VARCHAR is _____
a) 0
b) 127
c) 1023
d) 65535
Answer: d
Explanation: The values in 'VARCHAR' columns are variable length strings. The length can be a value from 0 to 65,535. The effective maximum length of a VARCHAR is subject to the maximum row size.

2. The storage in bytes required for VARCHAR(4) type 'abcd' is _____
a) 1
b) 3
c) 5
d) 8
Answer: c
Explanation: 'VARCHAR' values are not padded when they are stored. The trailing spaces are retained when values are stored and retrieved in conformance with standard SQL. The given size is 5 bytes.

3. Which mode does not remove trailing spaces when CHAR values are retrieved?
a) PAD_CHAR_TO_FULL_LENGTH
b) TO_FULL_LENGTH_CHAR_PAD
c) CHAR_PAD_TO_FULL_LENGTH
d) PAD_CHAR_TO_LENGTH
Answer: a
Explanation: When the CHAR values are stored, they are right-padded with spaces to the specified length. When CHAR values are retrieved, trailing spaces are removed unless the SQL mode 'PAD_CHAR_TO_FULL_LENGTH' is enabled.

4. What is the minimum value stored by signed TINYINT?
a) -256

b) -128

c) 0

d) 128

View Answer

Answer: b

Explanation: MySQL supports the SQL standard integer types INTEGER, or INT, and SMALLINT. As an extension to this standard, MySQL also supports the integer types TINYINT, MEDIUMINT and BIGINT.

5. For InnoDB tables in mysqldump an online backup that takes no locks on tables can be performed by which option?

a) –multiple-transaction

b) –single-transaction

c) –double-transaction

d) –no-transaction

View Answer

Answer: b

Explanation: For InnoDB tables it is possible to perform an online backup that takes no locks on tables using the option '–single-transaction' to 'mysqldump'. The 'mysqldump' can make backups.

6. What is used to reload a delimited text data file?

a) mysqldump

b) mysqld

c) mysqlimport

d) mysqlnaive

View Answer

Answer: c

Explanation: A way to create text data files along with files containing 'CREATE TABLE' statements for the backed up tables is to use 'mysqldump' with –tab. To reload a delimited text data file 'mysqlimport' is used.

7. Replication does not enable data from one MySQL database server to be copied to one or more MySQL database servers.

a) True

b) False

View Answer

Answer: b

Explanation: Replication enables data from one MySQL database server (the master) to be copied to one or more MySQL database servers (the slaves). Replication is asynchronous by default.

8. What is SBR replication?

a) Statement based

b) Row based

c) Column based

d) Table based

Answer: a

Explanation: There are two main kinds of replication format: Statement Based Replication (SBR) replicates entire SQL statements and Row Based Replication (RBR) replicates only the changed rows.

9. Which is the library file that contains various portability macros and definitions?
a) my_global.h
b) my_sys.h
c) mysql.h
d) my_local.h

Answer: b

Explanation: The 'my_sys.h' header file contains a variety of portability macros and definitions required for structures and functions. These structures and functions are used by the client library.

10. Which is the header that should be included first?
a) my_global.h
b) my_sys.h
c) mysql.h
d) my_local.h

Answer: a

Explanation: The file 'my_global.h' takes care of including several other header files that are likely to be generally useful, like 'stdio.h'. It also includes Windows compatibility information.

1. The physical devices of a computer :
a) Software
b) Package
c) Hardware
d) System Software

Answer: c

Explanation: Hardware refers to the physical devices of a computer system.
Software refers to a collection of programs. A program is a sequence of instructions.

2. Software Package is a group of programs that solve multiple problems.
a) True
b) False

Answer: b

Explanation: The statement is false. The software package is a group of programs that solve a specific problem or perform a specific type of job.

3. _____ refer to renewing or changing components like increasing the main memory, or hard disk capacities, or adding speakers, or modems, etc.
a) Grades
b) Prosody
c) Synthesis
d) Upgrades
View Answer
Answer: d
Explanation: Upgrades is the right term to be used. Upgrades are installed to renew or implement a new feature. Except for upgrades, hardware is normally one-time expense.

advertisement

4. Which of the following is designed to control the operations of a computer?
a) Application Software
b) System Software
c) Utility Software
d) User
View Answer
Answer: b
Explanation: Software is basically classified into two: System and application. System Software is designed to control the operations and extend the processing capability of a computer system.

5. Which of the following is not an example of system software?
a) Language Translator
b) Utility Software
c) Communication Software
d) Word Processors
View Answer
Answer: d
Explanation: A system software is responsible for controlling the operations of a computer system. Word Processor is an application software since it is specific to its purpose.

6. A person who designs the programs in a software package is called :
a) User
b) Software Manager
c) System Developer
d) System Programmer
View Answer
Answer: d
Explanation: The programs included in a system software package are called system programs. The programmers who design them and prepare them are called system programmers.

7. _____ is designed to solve a specific problem or to do a specific task.
a) Application Software
b) System Software
c) Utility Software
d) User
View Answer
Answer: a
Explanation: An application software is specific to solving a specific problem. System software is designed for controlling the operations of a computer system.

8. Assembler is used as a translator for?
a) Low level language
b) High Level Language
c) COBOL
d) C
View Answer
Answer: a
Explanation: Assembler is used in case of low level languages. It is generally used to make the binary code into an understandable format. Interpreter is used with the high level languages similarly.

9. What do you call a program in execution?
a) Command
b) Process
c) Task
d) Instruction
View Answer
Answer: b
Explanation: Option Process is correct. A program is a set of instructions. A program in execution is called a process.

10. Which of the following is not a process state?
a) Terminated
b) Running
c) Blocked
d) Execution
View Answer
Answer: c
Explanation: There is no blocked state in a process model. The different states are ready, running, executing, waiting and terminated.

1. Prolog comes under _____
a) Logic Programming
b) Procedural Programming
c) OOP

d) Functional

Answer: a

Explanation: Prolog stands for Programming in Logic. The options mentioned are the four categories of programming. Prolog is a type of logic programming.

2. Java is procedural programming.
a) True
b) False

Answer: b

Explanation: The statement is false. Java is a type of object oriented programming language. It involves solving real-life problems as well.

3. A program that can execute high-level language programs.
a) Compiler
b) Interpreter
c) Sensor
d) Circuitry

Answer: b

Explanation: Interpreter is a program that can execute high-level language programs "directly," without first being translated into machine language.

4. Executables might be called _____
a) native code
b) executable code
c) complex code
d) machine code

Answer: a

Explanation: The executables are sometimes called native code. HLL are translated to Machine language called the native code.

5. Source program is compiled to an intermediate form called _____
a) Byte Code
b) Smart code
c) Executable code
d) Machine code

Answer: a

Explanation: The Source program is compiled to an intermediate form called byte code. For each supported platform, write a "virtual machine" emulator that reads byte code and emulates its execution.

6. _____ is the assembly language for an imaginary architecture.
a) Byte code
b) Machine code
c) Native code
d) Executable code
View Answer

Answer: a

Explanation: Source program is compiled to an intermediate form – byte code. Byte code is the assembly language for an imaginary architecture.

7. JIT stands for?
a) Just in time
b) Jump in time
c) Jump in text
d) Jump in terms
View Answer

Answer: a

Explanation: JIT stands for Just in time. JVMs actually compile each bytecode instruction to native code the first time it is used.

8. JVM stands for?
a) Java virtual machine
b) Java visual machine
c) JRE virtual machine
d) JRE visual machine
View Answer

Answer: a

Explanation: JVM stands for Java Virtual Machine. Other related terms are JRE which is java runtime environment and JDK which is java development kit.

9. A language supported by MS. Net platform.
a) C
b) C++
c) java
d) C#
View Answer

Answer: d

Explanation: C# is supported by MS. Net platform. JAVA was originally designed for web purposes.

10. Which of the following isn't a characteristic of High level languages?
a) machine code
b) platform independent
c) interactive execution
d) user-friendly
View Answer

Answer: a

Explanation: HLL isn't in machine language. It is converted to machine language for further processing.

1) What is the 16-bit compiler allowable range for integer constants?

a.   -3.4e38 to 3.4e38

   b. -32767 to 32768

   c. -32668 to 32667

   d. -32768 to 32767

Hide Answer Workspace

Answer: (d) -32768 to 32767

Explanation: In a 16-bit C compiler, we have 2 bytes to store the value.

   o   The range for signed integers is -32768 to 32767.

   o   The range for unsigned integers is 0 to 65535.

   o   The range for unsigned character is 0 to 255.

---

2) Study the following program:

1. main()
2. {printf("javatpoint");
3. main();}

What will be the output of this program?

a.   Wrong statement

   b. It will keep on printing javatpoint

   c. It will Print javatpoint once

   d. None of the these

Hide Answer Workspace

Answer: (b) It will keep on printing javatpoint

Explanation: In this program, the main function will call itself again and again. Therefore, it will continue to print javatpoint.

---

3) What is required in each C program?

a.   The program must have at least one function.

   b. The program does not require any function.

   c. Input data

   d. Output data

Hide Answer Workspace

Answer: (a) The program must have at least one function.

Explanation: Any C program has at least one function, and even the most trivial programs can specify additional functions. A function is a piece of code. In other words, it works like a sub-program.

---

4) What will this program print?

```
1.  main()
2.  {
3.    int i = 2;
4.    {
5.      int i = 4, j = 5;
6.       printf("%d %d", i, j);
7.    }
8.    printf("%d %d", i, j);
9.  }
```

a.   4525

   b. 2525

   c. 4545

   d. None of the these

Hide Answer Workspace

Answer: (a) 4525

Explanation: In this program, it will first print the inner value of the function and then print the outer value of the function.

---

5) Which of the following comment is correct when a macro definition includes arguments?

a.   The opening parenthesis should immediately follow the macro name.
b. There should be at least one blank between the macro name and the opening parenthesis.
c. There should be only one blank between the macro name and the opening parenthesis.
d. All the above comments are correct.

Hide Answer Workspace

Answer: (a) The opening parenthesis should immediately follow the macro name.

Explanation: None

---

6) What is a lint?

a.   C compiler
b. Interactive debugger
c. Analyzing tool
d. C interpreter

Hide Answer Workspace

Answer: (c) Analyzing tool

Explanation: Lint is an analyzing tool that analyzes the source code by suspicious constructions, stylistic errors, bugs, and flag programming errors. Lint is a compiler-like tool in which it parses the source files of C programming. It checks the syntactic accuracy of these files.

7) What is the output of this statement "printf("%d", (a++))"?

a.   The value of (a + 1)

  b. The current value of a

  c. Error message

  d. Garbage

Hide Answer Workspace

Answer: (b) The current value of "a".

Explanation: None

8) Study the following program:

1. main()
2. {
3.   **char** x [10], *ptr = x;
4.   scanf ("%s", x);
5.   change(&x[4]);
6. }
7. change(**char** a[])
8. {
9.   puts(a);
10. }

If abcdefg is the input, the output will be

a.   abcd

  b. abc

  c. efg

  d. Garbage

Hide Answer Workspace

Answer: (c) efg

Explanation: None

---

9) Study the following program:

1. main()
2. {
3.   **int** a = 1, b = 2, c = 3:
4.   printf("%d", a + = (a + = 3, 5, a))
5. }

What will be the output of this program?

a.   6

    b. 9

    c. 12

    d. 8

Hide Answer Workspace

Answer: (d) 8

Explanation: It is an effect of the comma operator.

a + = (a + = 3, 5, a)

It first evaluates to "a + = 3" i.e. a = a + 3 then evaluate 5 and then evaluate "a".

Therefore, we will get the output is 4.

Then,

a + = 4

It gives 8 as the output.

---

10) What does this declaration mean?

1.   **int** x : 4;

a.   X is a four-digit integer.

b. X cannot be greater than a four-digit integer.

c. X is a four-bit integer.

d. None of the these

Hide Answer Workspace

Answer: (c) X is a four-bit integer.

Explanation: This means, "X" is a four bit integer.

---

11) Why is a macro used in place of a function?

a.   It reduces execution time.

b. It reduces code size.

c. It increases execution time.

d. It increases code size.

Hide Answer Workspace

Answer: (d) It reduces code size.

Explanation: Macro is used in place of a function because it reduces code size, and very efficient.

---

12) In the C language, the constant is defined _____.

a.   Before main

b. After main

c. Anywhere, but starting on a new line.

d. None of the these.

Hide Answer Workspace

Answer: (c) Anywhere, but starting on a new line.

Explanation: In the C language, the constant is defined anywhere, but starting on a new line.

---

13) How many times will the following loop execute?

1. **for**(j = 1; j <= 10; j = j-1)

a.   Forever

b. Never

c. 0

d. 1

Hide Answer Workspace

Answer: (a) Forever

Explanation: None

---

14) A pointer is a memory address. Suppose the pointer variable has p address 1000, and that p is declared to have type int*, and an int is 4 bytes long. What address is represented by expression p + 2?

a.   1002

b. 1004

c. 1006

d. 1008

Hide Answer Workspace

Answer: (d) 1008

Explanation: None

---

15) What is the result after execution of the following code if a is 10, b is 5, and c is 10?

1. If ((a > b) && (a <= c))
2.   a = a + 1;
3. **else**
4.   c = c+1;

a.   a = 10, c = 10

b. a = 11, c = 10

    c. a = 10, c = 11

    d. a = 11, c = 11

Hide Answer Workspace

Answer: (b) a = 11, c = 10

Explanation: None

---

16) Which one of the following is a loop construct that will always be executed once?

a.   for

    b. while

    c. switch

    d. do while

Hide Answer Workspace

Answer: (d) do while

Explanation: The body of a loop is often executed at least once during the do-while loop. Once the body is performed, the condition is tested. If the condition is valid, it will execute the body of a loop; otherwise, control is transferred out of the loop.

---

17) Which of the following best describes the ordering of destructor calls for stack-resident objects in a routine?

a.   The first object created is the first object destroyed; last created is last destroyed.

    b. The first object destroyed is the last object destroyed; last created is first destroyed.

    c. Objects are destroyed in the order they appear in memory, the object with the lowest memory address is destroyed first.

    d. The order is undefined and may vary from compiler to compiler.

Hide Answer Workspace

Answer: (b) The first object destroyed is the last object destroyed; last created is first destroyed.

Explanation: None

---

18) How many characters can a string hold when declared as follows?

1. **char** name[20]:

a.   18
   b. 19
   c. 20
   d. None of the these

Hide Answer Workspace

Answer: (b) 20

Explanation: None

---

19) Directives are translated by the

a.   Pre-processor
   b. Compiler
   c. Linker
   d. Editor

Hide Answer Workspace

Answer: (a) Pre-processor

Explanation: In C language, the pre-processor is a macro processor that is dynamically used by the C programmer to modify the program before it is properly compiled (Before construction, pro-processor directives are implemented).

---

20) How many bytes does "int = D" use?

a.   0

b. 1

c. 2 or 4

d. 10

Hide Answer Workspace

Answer: (c) 2 or 4

Explanation: The int type takes 2 or 4 bytes.

---

21) What feature makes C++ so powerful?

a.   Easy implementation

b. Reusing the old code

c. Easy memory management

d. All of the above

Hide Answer Workspace

Answer: (d) All of the above

Explanation: None

---

22) Which of the following will copy the null-terminated string that is in array src into array dest?

a.   dest = src;

b. dest == src;

c. strcpy(dest, src);

d. strcpy(src, dest);

Hide Answer Workspace

Answer: (c) strcpy(dest, src)

Explanation: strcpy is a string function that is used to copy the string between the two files. strcpy(destination, source)

23) In the statement "COUT << "javatpoint" << end1;", end1 is a ___.

a. Extractor

b. Inserter

c. Manipulator

d. Terminator

Hide Answer Workspace

Answer: (c) Manipulator

Explanation: End1 is an I/O manipulator that takes effect in printing a new line '\ n' character and then flushing the output stream.

24) Each instance of a class has a different set of

a. Class interfaces

b. Methods

c. Return types

d. Attribute values

Hide Answer Workspace

Answer: (d) Attribute values

Explanation: Each instance of the class has a different set of attribute values

25) How many instances of a class can be declared?

a. 1

b. 10

c. As per required

d. None of the these

Hide Answer Workspace

Answer: (c) As per required

Explanation: You can always declare multiple instances of a class, as per required. Each object will hold its own individual inner variables (unless they are static, in which case they are shared).

---

26) What will the result of num variable after execution of the following statements?

1. **int** num = 58;
2. num % = 11;

a. 3
b. 5
c. 8
d. 11

Hide Answer Workspace

Answer: (a) 3

Explanation: num = 58

num % = 11

num = num % 11

num = 58 % 11

num = 3

---

27) What is the maximum number of characters that can be held in the string variable char address line [40]?

a.   38
b. 39
c. 40
d. 41

Hide Answer Workspace

Answer: (b) 39

Explanation: None

---

28) What will the result of num1 variable after execution of the following statements?

1. **int** j = 1, num1 = 4;
2. **while** (++j <= 10)
3. {
4.   num1++;
5. }

a.   11

  b. 12

  c. 13

  d. 14

Hide Answer Workspace

Answer: (c) 13

Explanation: None

---

29) What will the result of len variable after execution of the following statements?

1. **int** len;
2. **char** str1[] = {"39 march road"};
3. len = strlen(str1);

a.   11

  b. 12

  c. 13

  d. 14

Hide Answer Workspace

Answer: (c) 13

Explanation: strlen is a string function that counts the word and also count the space in the string. (39 march road) = 13

---

30) Study the following statement

1. #include <stdio.h>
2.   int main()
3.   {
4.   int *ptr, a = 10;
5.   ptr = &a;
6.   *ptr += 1;
7.   printf("%d,%d/n", *ptr, a);
8.   }

What will be the output?

a.   10, 10

   b. 10, 11

   c. 11, 10

   d. 11, 11

Hide Answer Workspace

Answer: (d) 11, 11

Explanation: None

---

31) Given the following statement, what will be displayed on the screen?

1. int * aPtr;
2. *aPtr = 100;
3. cout << *aPtr + 2;

a.   100

   b. 102

   c. 104

   d. 108

Answer: (b) 102

Explanation: aPtr is an integer pointer which value is 100.

= *aPtr + 2

= 100 + 2

= 102

---

32) Give the following declarations and an assignment statement. Which one is equivalent to the expression str [4]?

1. **char** str[80];
2. **char** * p;
3. p = str;

a.   p + 4

  b. *p + 4

  c. *(p + 4)

  d. p [3]

Answer: (c) *(p + 4)

Explanation: None

---

33) Which one is the correct description for the variable balance declared below?

1. **int** ** balance;

a.   Balance is a point to an integer

  b. Balance is a pointer to a pointer to an integer

  c. Balance is a pointer to a pointer to a pointer to an integer

  d. Balance is an array of integer

Answer: (b) Balance is a pointer to a pointer to an integer

Explanation: This code description states that the remainder is a pointer to a pointer to an integer.

---

34) A class D is derived from a class B, b is an object of class B, d is an object of class D, and pb is a pointer to class B object. Which of the following assignment statement is not valid?

a.   d = d;

   b. b = d;

   c. d = b;

   d. *pb = d:

Answer: (c) d = b;

Explanation: A class D is derived from a class B, so "d" is not equal to b.

---

35) Which of the following statement is not true?

a.   A pointer to an int and a pointer to a double are of the same size.

   b. A pointer must point to a data item on the heap (free store).

   c. A pointer can be reassigned to point to another data item.

   d. A pointer can point to an array.

Answer: (b) A pointer must point to a data item on the heap (free store).

Explanation: None

---

36) Which of the following SLT template class is a container adaptor class?

a.   Stack

    b. List

    c. Deque

    d. Vector

Hide Answer Workspace

Answer: (a) Stack

Explanation: Container Adaptors is the subset of Containers that provides many types interface for sequential containers, such as stack and queue.

---

37) What kinds of iterators can be used with vectors?

a.   Forward iterator

    b. Bi-directional iterator

    c. Random access iterator

    d. All of the above

Hide Answer Workspace

Answer: (d) All of the above

Explanation: An iteration is like a pointer, indicating an element inside the container. All these types of iterations can be used with vectors.

---

38) Let p1 be an integer pointer with a current value of 2000. What is the content of p1 after the expression p1++ has been evaluated?

a.   2001

    b. 2002

    c. 2004

    d. 2008

Hide Answer Workspace

Answer: (c) 2004

Explanation: The size of one pointer integer is 4 bytes. The current value of p1 is 2000.

p1++ = p1 + 1

p1++ = 2004

---

39) Let p1 and p2 be integer pointers. Which one is a syntactically wrong statement?

a.   p1 = p1 + p2;

   b. p1 = p1 - 9;

   c. p2 = p2 + 9;

   d. cout << p1 - p2;

Hide Answer Workspace

Answer: (a) p1 = p1 + p2;

Explanation: None

---

40) Suppose that cPtr is a character pointer, and its current content is 300. What will be the new value in cPtr after the following assignment?

   1. cPtr = cPtr + 5;

a.   305

   b. 310

   c. 320

   d. 340

Hide Answer Workspace

Answer: (a) 305

Explanation: cPtr = cPtr + 5

cPtr = 300 + 5

cPtr = 305

41) Which is valid expression in c language?

a.   int my_num = 100,000;

   b. int my_num = 100000;

   c. int my num = 1000;

   d. int my num == 10000;

Hide Answer Workspace

Answer: (b) int my_num = 100000;

Explanation: Special symbol, Space, and comma cannot be used in a variable name in c language.

---

42) If addition had higher precedence than multiplication, then the value of the expression (1 + 2 * 3 + 4 * 5) would be which of the following?

a.   27

   b. 47

   c. 69

   d. 105

Hide Answer Workspace

Answer: (d) 105

Explanation: (1 + 2 * 3 + 4 * 5)

= (1 + 2) * (3 + 4) * 5

= 3 * 7 * 5

= 105

---

43) What will be the output of this program?

1. **int** main()
2. {
3. **int** a=10, b=20;

4. printf("a=%d b=%d",a,b);
5. a=a+b;
6. b=a-b;
7. a=a-b;
8. printf("a=%d b=%d",a,b);
9. **return** 0;
10. }

a. a = 20, b = 20
b. a = 10, b = 20
c. a = 20, b = 10
d. a = 10, b = 10

Hide Answer Workspace

Answer: (c) a = 20, b = 10

Explanation: This program is a swapping program.

a = a + b → a = 10 + 20 → a = 30

b = a - b → b = 30 - 20 → B = 10

a = a - b → a = 30 - 10 → a = 20

---

44) The following statements are about EOF. Which of them is true?

a.   Its value is defined within stdio.h
b. Its value is implementation dependent
c. Its value can be negative
d. Its value should not equal the integer equivalent of any character
e. All of the these

Hide Answer Workspace

Answer: (e) All of the these

Explanation: All statements are true

---

45) What does this statement mean?

1. x - = y + 1;

a.   x = x - y + 1

b. x = -x - y - 1

c. x = x + y - 1

d. x = x - y - 1

Hide Answer Workspace

Answer: (d) x = x - y - 1

Explanation: x - = y + 1

x = x - (y + 1)

So, x = x - y - 1

---

46) Study the following statement

1. **for** (i = 3; i < 15; i + = 3)
2. {printf ("%d", i);
3.   ++i;
4. }

What will be the output?

a.   3 6 9 12

b. 3 6 9 12 15

c. 3 7 11

d. 3 7 11 15

Hide Answer Workspace

Answer: (c) 3 7 15

Explanation: None

---

47) Study the following statement

1. main()
2. {
3.   char *s = "Hello,"
4.   "World!";
5.   printf("%s", s);
6. }

What will be the output?

a.   Hello, World!

b. Hello,
   World!

c. Hello

d. Compile error

Hide Answer Workspace

Answer: (b) Hello, World!

Explanation: The output of this program is "Hello, World!". This program's output will not appear in the new line because the \ n escape sequence has not been used in this program.

---

48) Study the following array definition

1. int num[10] = {3, 3, 3};

Which of the following statement is correct?

a.   num[9] is the last element of the array num

b. The value of num[8] is 3

c. The value of num[3] is 3

d. None of the above

Hide Answer Workspace

Answer: (a) num[9] is the last element of the array num

Explanation: The num[9] is the last element of the array number because the total element in this array is 10, and the array starts with 0, so the last element of the array is the num[9].

---

49) What will the output after execution of the following statements?

1. main()
2. {
3.   printf ("\\n ab");
4.   printf ("\\b si");
5.   printf ("\\r ha");
6. }

a. absiha

b. asiha

c. haasi

d. hai

Hide Answer Workspace

Answer: (d) hai

Explanation:

- \\n - newline - printf("\\nab"); - Prints 'ab'
- \\b - backspace - printf("\\bsi"); - firstly '\\b' removes 'b' from 'ab ' and then prints 'si'. So, after execution of printf("\\bsi"); it is 'asi'
- \\r - linefeed - printf("\\rha"); - Now here '\\r' moves the cursor to the start of the current line and then override 'asi' to 'hai'

---

50) What will the output after execution of the following statements?

1. **void** main()
2. {
3.   **int** i = 065, j = 65;
4.   printf ("%d %d", i, j);
5. }

a.   065 65

   b. 53 65

   c. 65 65

   d. Syntax error

Hide Answer Workspace

Answer: (b) 53 65

Explanation: This value (065) is an octal value, and it equals to the decimal value 53.

1) Array is a _____ data structure.

a.   Non-linear

   b. Primary

   c. Linear

   d. Data type

Hide Answer Workspace

Answer: (c) Linear

Explanation: An array is a non-primitive and linear data structure that only stores a similar data type.

---

2) Which of the following statement is correct about the array?

a.   In the array, users can only allocate the memory at the run time.

   b. In the array, users can only allocate the memory at the compile time.

   c. The array is a primitive and non-linear data structure that only stores a similar data type.

   d. All of the these

Hide Answer Workspace

Answer: (b) In the array, users can only allocate the memory at the compile time.

Explanation: An array is a non-primitive and linear data structure that only stores a similar data type. In array, users can only allocate the memory at the compile time.

3) Which of the following statement is correct about the C language?

a.   The C language is a binary language with some extra features.

   b. The C language is a high-level language with some low features.

   c. The C language is a mid-level language with some high features.

   d. The C language is a low-level language.

Answer: (c) The C language is a mid-level language with some high features.

Explanation: C is considered a middle-level language because it supports the feature of both low-level and high-level languages. Today, many programmers refer to C as a low-level language because it lacks a large runtime system (no garbage collection, etc.). It supports only scalar operations and provides direct memory addressing.

---

4) In the following program fragment, s and b are two integers:

   1. b = s + b
   2. s = b - s
   3. b = b - s

What does it intend to do?

a.   Exchange the values of s and b

   b. Transfer the values of s and b

   c. Transfer the values of b and s

   d. Add or subtract the values of s and b

Answer: (a) Exchange the values of s and b

Explanation: The intention of this program fragment is to exchange (swap) the values of s and b. Let us take an example for better understand:

   1. s = 1
   2. b = 2

3. b = s + b
4. b = 1 + 2
5. b = 3
6. s = b - s
7. s = 3 - 1
8. s = 2
9. b = b - s
10. b = 3 - 2
11. b = 1

---

5) Study the following program fragment

1. **int** i = 263;
2. putchar(i);

What will be the output of this program fragment?

a.   prints 263

b. prints the ASCII equivalent of 263

c. rings the bell

d. prints garbage

Hide Answer Workspace

Answer: (c) rings the bell

Explanation: 263 is equivalent to binary number 100000111. If the user tries to print an integer as a character, only the last 8 bits are considered, and the remaining ones are ignored. In this program, the ASCII value of 100000111 will be 00000111 (i.e., decimal 7). Therefore, this program will print "ringing the bell".

---

6) Study the following statement

1. printf ("%d", 9/5);

What will be the output of this statement?

a.   1.8

   b. 1.0

   c. 2.0

   d. None of the these

Hide Answer Workspace

Answer: (d) None of the these

Explanation: On execution, 9/5 will produce integer 1. If we print 1 as a floating number, only garbage will be printed.

---

7) A global variable is declared _____.

a.   Outside of the function

   b. Inside of the function

   c. With the function

   d. Anywhere in the program

Hide Answer Workspace

Answer: (a) Outside of the function

Explanation: A global variable is a variable that is declared outside of the function. A global variable can be used in all functions.

---

8) Who defines the user-defined function?

a.   Compiler

   b. Computer

   c. Compiler library

   d. Users

Hide Answer Workspace

Answer: (d) Users

Explanation: The user-defined functions are those functions that are defined by the user while writing the program. The user can define these functions according to their needs.

---

9) Which of the following functions is already declared in the "header file"?

a.   User-define function

b. Built-in function

c. C function

d. None of the these

Hide Answer Workspace

Answer: (b) Built-in function

Explanation: Built-in functions are those functions whose prototypes are preserved in the header file of the "C" programming language. These functions are called and executed only by typing their name in the program. For example, scanf(), printf(), strcat(), etc.

---

10) Which of the following operations cannot be performed in file handling?

a.   Open the file

b. Read the file

c. To write a file

d. None of the these

Hide Answer Workspace

Answer: (d) None of the these

Explanation: File handling is a process in which data is stored in a file using a program. The following operations can be performed in file handling:

o   Create a new file

o   Open file

o   Read the file

- o Write the file
- o Delete file
- o File closing

Therefore, option (d) is the correct answer.

---

11) Which of the following function is used to write the integer in a file?

a. getw()

b. putw()

c. int value

d. f_int()

Hide Answer Workspace

Answer: (b) putw()

Explanation: The putw() is used to write the integer in a file.

Syntax:

```
putw(int i, FILE *fp);
```

---

12) Which of the following statement is correct about the ftell() function?

a. It returns the current position.

b. It sets the file pointer to the given position.

c. It sets the file pointer at the beginning of the file.

d. It reads a character from the file.

Hide Answer Workspace

Answer: (a) It returns the current position.

Explanation: The ftell() function returns the current position of the file pointer in a stream.

Syntax of ftell() function:

1. **long int** ftell(**FILE** *stream)

---

13) Study the following program:

1. #include <stdio.h>
2. int main() {
3.   int i = 5;
4.   printf("%d", i = ++i == 6);
5.   return 0;
6. }

What will be the output of this program?

a.   2

   b. 6

   c. 4

   d. 1

Hide Answer Workspace

Answer: (a) 1

Explanation: The expression can be treated as i = (++i == 6), because "==" is of higher precedence than "=" operator. In the inner expression, ++i is equal to 6. Hence, the result is 1.

---

14) In which of the following modes, the user can read and write the file?

a.   r

   b. w

   c. r+

   d. b+

Hide Answer Workspace

Answer: (c) r+

Explanation: r+ mode opens the text file in both reads and writes modes.

---

15) What type of data type does the atoi() function return?

a. String

b. char

c. Integer

d. Float

Hide Answer Workspace

Answer: (c) Integer

Explanation: The atoi() takes the string data type and returns the integer data type. This means it converts the string argument into an integer.

---

16) Which of the following keywords is used to prevent any kind of change in a variable?

a. continue

b. const

c. struct

d. extern

Hide Answer Workspace

Answer: (b) const

Explanation: Constant is a variable whose value cannot be changed once assigned. Constant is also called literals. It can be of any basic data type such as char, integer, float, and string. It can be defined anywhere in the program but in a new line. It is represented by the const keyword.

---

17) Which of the following declarations is invalid in C language?

a. char *str = "javatpoint is the best platform for learn";

b. char str[] = "javatpoint is the best platform for learn";

c. char str[20] = "javatpoint is the best platform for learn";

d. char[] str = "javatpoint is the best platform for learn";

Hide Answer Workspace

Answer: (d) char[] str = "javatpoint is the best platform for learn";

Explanation: This declaration is valid in java language, but not in C language. Therefore, option (d) is the correct answer.

---

18) The enum keyword is used to assign names to the _____ constants.

a.   Integer

   b. String

   c. Character

   d. All of the these

Hide Answer Workspace

Answer: (a) Integer

Explanation: Enumeration is a user-defined data type in C language that is used to assign names to integral constants. It is represented by the "enum" keyword.

---

19) Study the following program:

1. #include<stdio.h>
2. **enum** flg{a, b, c};
3. **enum** glf{c, e, f};
4. main()
5. {
6.   **enum** flg h;
7.   h = b;
8.   printf("%d", h);
9.   **return** 0;
10. }

What will be the output of this program?

a.   1

   b. error: redeclaration of an enumerator

   c. h

   d. 3

Hide Answer Workspace

Answer: (b) error: redeclaration of an enumerator

Explanation: There is a declaration error in the output of this program because the declaration of the enum function is the same.

---

20) Which of the following operator's precedence order is correct (from highest to lowest)?

a.   %, *, /, +, -

   b. %, +, /, *, -

   c. +, -, %, *, /

   d. %, +, -, *, /

Hide Answer Workspace

Answer: (a) %, *, /, +, -

Explanation: The precedence of operator species that which operator will be evaluated first and next. When two operators share an operand, the operator with the higher precedence goes first.

---

21) Which of the following is not an arithmetic operation?

a.   x * = 65;

   b. x / = 42;

   c. x % = 2;

   d. x ! = 56;

Hide Answer Workspace

Answer: (d) x ! = 56;

Explanation: There are five arithmetic operators in the C language.

---

22) Which of the following operator is represented a relational operation?

a.   ==

b. ++

c. ||

d. &&

Hide AnswerWorkspace

Answer: (a) ==

Explanation: The relational expression is used to compare two operands. It is a condition expression. The following operators are relational operators.

%	Modulo division
*	Multiplication
/	Division
+	Addition
-	Subtraction
==	Equal to
!=	Not equal to
<	Less than
>	Greater than
<=	Less than or equal to)
>=	Greater than or equal to

23) Which of the following keyword is used for union in c language?

a.   un

b. unt

c. ion

d. union

Hide Answer Workspace

Answer: (d) union

Explanation: Union is a special data type by which we store different data types in the same memory location. The union keyword is used to define a union data type.

---

24) Study the following program fragment

1. **char** ch = 'Z'

What will store in ch?

a.   Z

b. 90

c. 91

d. 122

Hide Answer Workspace

Answer: (b) 90

Explanation: The capital 'Z' value is 90 accordingly to the ASCII table. Therefore, 90 will be assigned to ch variable.

---

25) Study the following program:

1. main ()
2. {
3.   **if**(5 < '5')
4.   printf("5")
5.   **else**
6.   printf("Not equal to 5.")
7. }

What will be the output of this program?

a.   ENQ

b. 5

c. I

d. Not equal to 5

Answer: (b) 5

Explanation: This program will print 5 because '5' is a decimal value, and it is equal to 53 in the ASCII table. Therefore, the condition is true and returns 5.

---

26) Which of the following variable name is correct in c language?

a.   For

b. for

c. Basic salary

d. hello.

Answer: (a) For

Explanation: The "for" is an incorrect variable name because it is a keyword in the C language. The "Basic salary" is the incorrect variable name because space is not allowed within the variable name. Hello. is incorrect because '.' is not allowed within the variable name. Therefore, option (a) is the correct answer.

---

27) Which of the following header files is not used in C language?

a.   <assert.h>

b. <ctype.h>

c. <iostream.h>

d. <locale.h>

Answer: (c) <iostream.h>

Explanation: <iostream.h> header file is used for basic input and output services in C++ language.

28) Which of the following header files is used for character type function in C language?

a.   <assert.h>

b. <ctype.h>

c. <iostream.h>

d. <locale.h>

Hide Answer Workspace

Answer: (b) <ctype.h>

Explanation: The <ctype.h> header file is used for character type function in C language.

29) Which of the following declaration is incorrect in C language?

a.   scanf("%d%d", a, b);

b. scanf("%d%d", a b);

c. scanf("First %d Second %d", &a, &b);

d. scanf(" %d%d", &x,&y);

Hide Answer Workspace

Answer: (b) scanf("%d%d", a b);

Explanation: Option (b) is an incorrect declaration in the C language because the variable name is not separated by a comma.

30) If a = 0x6db7, what will be the value of "a << 6" in decimal?

a.   28087

b. 28996

c. 29512

d. 29096

Hide Answer Workspace

Answer: (a) 28087

Explanation: a = 0x6db7, that means, 0x6db7 is a hexadecimal code.

=0x6db7 << 6 = 0110 1101 1011 0111 << 6

= 0110 1101 1100 0000

= 28087 (in decimal)

---

31) If a = 0x6db7 and b = 0xa726, what will be the value of a&b?

a.   9814
    b. 9510
    c. 9045
    d. 9305

Hide Answer Workspace

Answer: (b) 9510

Explanation: a = 0x6db7

b = 0xa726

Both a and b values are hexadecimal value.

= 0x6db7 & 0xa726

= 0110 1101 1011 0111 & 1010 0111 0010 0110

= 0010 0101 0010 0110

= 0x2526

= 9510 (in decimal)

---

32) If a = 0x6db7 and b = 0xa726, what will be the value of a^b?

a.   51956

b. 51256

c. 51857

d. 51235

Hide Answer Workspace

Answer: (c) 51587

Explanation: a = 0x6db7

b = 0xa726

Both a and b values are hexadecimal value.

= 0110 1101 1011 0111 ^ 1010 0111 0010 0110

= 1100 1010 1001 0001

= 0xca91

= 51857 (in decimal)

---

33) Study the following program:

1. main ()
2. {
3.   **int** x;
4.   x = 4 % -5 + 6 % 5;
5.   printf("\nx = %d", x);
6. }

What will be the output of this program?

a.   10

b. 9

c. 5

d. 3

Hide Answer Workspace

Answer: (c) 5

Explanation: x = 4 % -5 + 6 % 5

x = 4 + 6 % 5

x = 4 + 1

x = 5

---

34) Study the following program:

1. main ()
2. {
3.   **char** x;
4.   x = 'A' + 5;
5.   printf("%c", x);
6. }

What will be the output of this program?

a.   A + 5

   b. A

   c. 5

   d. F

Hide Answer Workspace

Answer: (d) F

Explanation: This program will print F because capital 'A' is equal to 65 according to the ASCII table. Therefore, 'A + 5' is equal to 70, and the value of 70 is F.

---

35) Which one of the following operators is a unary operator in c language?

a.   &

   b. &&

   c. <<

d. sizeof()

Answer: (d) sizeof()

Explanation: The sizeof () operator is a compile-time unary operator that is used to compute the size of the operand.

---

36) Study the following program:

1. #include <stdio.h>
2. #define a(i, j) printf("%d", j##i)
3. **int** main()
4. {
5.   a(5, 10);
6. }

What will be the output of this program?

a.   510

b. 105

c. Compiler error

d. Declaration error

Answer: (b) 105

Explanation: None

---

37) How many types of variables are there in the C language?

a.   2

b. 4

c. 1

d. 5

Answer: (a) 2

Explanation: There are two types of variables:

- o Global variable
- o Local variable

---

38) Which of the following is the variable that can be used for all functions?

a. Static variable
  b. Global variable
  c. Local variable
  d. Dynamic variable

Answer: (b) Global variable

Explanation: The global variable is a variable, which is declared outside of the functions. A global variable can be used in all functions.

---

39) Which symbol is used to declare a pointer?

a. *
  b. #
  c. &
  d. &&

Answer: (a) *

Explanation: To declare a pointer variable, we use a '*' symbol before the pointer variable.

1. **int** *k;

40) Which of the following initialization is incorrect in C language?

a.   char str [40] = "YUGAL";

   b. char str [] = {'Y','U','G','A','L','\ 0'};

   c. char str [40] = {'Y','U','G','A','L','\ 0'};

   d. None of the these

Hide Answer Workspace

Answer: (d) None of the these

Explanation: All these declarations are correct in the C language. Therefore, option (d) is the correct answer.

1. Who is father of C Language?

   A. Bjarne Stroustrup
   B. James A. Gosling
   C. Dennis Ritchie
   D. Dr. E.F. Codd
View Answer
Ans : C

Explanation: The C programming language was developed in 1972 by Dennis Ritchie in the Bell Laboratories of the AT & T (American Telephone & Telegraph),located in U.S.A.Dennis Ritchie is known as the founder of c language.

2. C Language was developed at ?

   A. AT & T Bell Laboratory
   B. MIT University
   C. Harvard University
   D. Stanford Lab
View Answer
Ans : A

Explanation: Dennis Ritchie developed the C programming language at Bell laboratories during 1970s

3. Many features of C were derived from which language ?

    A. PASCAL
    B. B
    C. BASIC
    D. FORTRAN
View Answer
Ans : B

Explanation: Richie and Thompson wanted to rewrite the operating system in B, a language they had previously developed, but B were typeworthy, and therefore mixed bits / words were not well suited for address and PDP-11 type . B was a simplified version of Thompson's BCPL, which was more ALGOL than the language.

4. What is C language?

    A. C language is a structure/procedure oriented
    B. C language is a middle level programming language
    C. C language was invented for implementing UNIX operating system
    D. All of the above
View Answer
Ans : D

Explanation: C language is just a high level computer language. High level languages help Human beings to express Logic. Computers dont understand this language. So, you need a mediator. This mediator is usually a Compiler or Interpreter. In case of â€˜Câ€™, we have a compiler. The compiler translates the logic expressed in C into Machine Code which is the language of computers.

5. First version of C Programming language is ___ .

    A. K&R
    B. C89
    C. ANSI
    D. R&K
View Answer
Ans : A

Explanation: In 1978, Brian Kernighan and Dennis Ritchie published the first edition of The C Programming Language known as "K&R" .

6. C was initially used for

A. General purpose
B. System development work
C. Data processing
D. None of these

View Answer

Ans : B

Explanation: C was initially used for system development work, particularly the programs that make-up the operating system.

7. C programming language is

A. Procedural language
B. Object Oriented language
C. Scripting languages
D. None of these

View Answer

Ans : A

Explanation: C programs follow a procedure of steps written in it, called functions. It follows a top-down approach i.e. much importance is given to flow of program rather than on data on which functions operate.

8. Which Committee standardize C Programming Language ?

A. IEEE
B. ISO
C. IEC
D. ANSI

View Answer

Ans : D

Explanation: American National Standards Institute.ANSI C (these days better known as C89) was the first standardized form of the C language.

9. Which year C language is developed?

A. 1970
B. 1971
C. 1972
D. 1973

View Answer

Ans : C

Explanation: C programming language was developed at Bell Laboratories in 1972 by Dennis Ritchie.

10. Which of these is not an example for IDE in C?

    A. Turbo
    B. Pycharm
    C. Code::Blocks
    D. Borland
View Answer
Ans : B

Explanation: Pycharm used for python

C Programming MCQ : Multiple Choice Questions and Answers

1. Who is father of C Language?
A. James A. Gosling
B. Dennis Ritchie
C. Dr. E.F. Codd
D.Bjarne Stroustrup

Answer: Option D
2. C Language developed at _____?
A. AT & T's Bell Laboratories of USA in 1970
B. Sun Microsystems in 1973
C. AT & T's Bell Laboratories of USA in 1972
D. Cambridge University in 1972

Answer: Option C
3. For 16-bit compiler allowable range for integer constants is _____?
A.-3.4e38 to 3.4e37
B.-32757 to 32768
C.-32668 to 32667
D.-32768 to 32767

Answer: Option D
4. In which the C programs are converted into machine language with the help of _____?

A. A compiler

B. An Editor

C. An operating system

D. None of these.

Answer: Option A

5. C was primarily developed as

A. Data processing language

B. General purpose language

C. None of the above

D. System programming language

Answer: Option D

6. Standard ANSI C recognizes _____ number of keywords?

A. 30

B. 32

C. 24

D. 36

Answer: Option B

7. What will be printed after execution of the following program code?

```
main ()
{
printf("\\nab");
printf("\\bsi");
printf("\\rha");
}
```

A. absiha

B. asiha

C. haasi

D. hai

Answer: Option D

8. Which is the only function all C programs must contain?

A .start()

B. system()

C. main()

D. printf()

Answer: Option C

9. An array elements are always stored in _____ memory locations.

A. Sequentia
IB. Random
C. Sequential and Random
D. None of the above

Answer: Option A
10. Which of the following special symbol allowed in a variable name?
A. * (asterisk)
B. | (pipeline)
C. – (hyphen)
D. _ (underscore)

Answer: Option D
11. When we mention the prototype of a function?
A. Defining
B. Declaring
C. Prototyping
D. Calling

Answer: Option B
12. The keyword used to transfer control from a function back to the calling function is
A. switch
B. goto
C. go back
D. return

Answer: Option D
13. In which header file is the NULL macro defined?
A. stdio.h
B. stddef.h
C. stdio.h and stddef.h
D. math.h

Answer: Option C
14. If a variable is a pointer to a structure, then which of the following operator is used to access data members of the structure through the pointer variable?
A. .
B. $

C.&

D.->

Answer: Option D

15. A pointer is

A. A keyword used to create variables

B. A variable that stores address of an instruction

C. A variable that stores address of other variable

D. All of the above

Answer: Option C

16. The library function used to find the last occurrence of a character in a string is

A. strnstr()

B. laststr()

C. strrchr()

D. strstr()

Answer: Option C

17. In which numbering system can the binary number 1011011111000101 be easily converted to?

A. Decimal system

B.Hexadecimal system

C. Octal system

D. No need to convert

Answer: Option B

18. Which bitwise operator is suitable for checking whether a particular bit is on or off?

A. && operator

B. & operator

C. || operator

D. ! operator

Answer: Option B

19. Input/output function prototypes and macros are defined in which header file?

A. conio.h

B. stdlib.h

C. stdio.h

D. dos.h

Answer: Option C

20. What will the function randomize() do in Turbo C under DOS?
A. returns a random number.
B. returns a random number generator in the specified range.
C. returns a random number generator with a random value based on time.
D. return a random number with a given seed value.

Answer: Option C

21. What are the different types of real data type in C ?
A. float, double
B. short int, double, long int
C. float, double, long double
D. double, long int, float

Answer: Option C

22. Which of the following range is a valid long double (Turbo C in 16 bit DOS OS) ?
A. 3.4E-4932 to 1.1E+4932
B. 3.4E-4932 to 3.4E+4932
C. 1.1E-4932 to 1.1E+4932
D. 1.7E-4932 to 1.7E+4932

Answer: Option A

23. What will happen if in a C program you assign a value to an array element whose subscript exceeds the size of array?
A. The element will be set to 0.
B. The compiler would report an error.
C. The program may crash if some important data gets overwritten.
D. The array size would appropriately grow.

Answer: Option C

24. How will you free the allocated memory ?
A. remove(var-name);
B. free(var-name);
C. delete(var-name);
D. dalloc(var-name);

Answer: Option B

25. What do the 'c' and 'v' in argv stands for?
A. 'c' means argument control 'v' means argument vector
B. 'c' means argument count 'v' means argument vertex

C. 'c' means argument count 'v' means argument vector
D. 'c' means argument configuration 'v' means argument visibility

Answer: Option C
26. In mathematics and computer programming, which is the correct order of mathematical operators
A. Addition, Subtraction, Multiplication, Division
B. Division, Multiplication, Addition, Subtraction
C. Multiplication, Addition, Division, Subtraction
D. Addition, Division, Modulus, Subtraction

Answer: Option B
27. What does the following declaration mean? Int(*ptr)[10];
A. ptr is array of pointers to 10 integers
B. ptr is a pointer to an array of 10 integers
C. ptr is an array of 10 integers
D. ptr is an pointer to array

Answer: Option B
28. Which one of the following is not a valid identifier?
A. examveda
B.1 examveda
C. exam_veda
D. examveda1

Answer: Option B
29. The maximum combined length of the command-line arguments including the spaces between adjacent arguments is
A. 128 characters
B. 256 characters
C. 67 characters
D. It may vary from one operating system to another

Answer: Option D
30. In the following code, the P2 is Integer Pointer or Integer?
typedef int *ptr;
ptr p1, p2;
A. Integer
B. Integer pointer
C. Error in declaration
D. None of above

31. Which of the following function is used to find the first occurrence of a given string in another string?
A. strchr()
B. strrchr()
C. strstr()
D. strnset()

32. The operator used to get value at address stored in a pointer variable is
A. *
B. &
C. &&
D. ||

33. What function should be used to free the memory allocated by calloc() ?
A. dealloc();
B. malloc(variable_name, 0)
C. free();
D. memalloc(variable_name, 0)

34. Which of the following cannot be checked in a switch-case statement?
A. Character
B. Integer
C. Float
D. enum

35. What are the different types of real data type in C ?
A. float, double
B. short int, double, long int
C. float, double, long double
D. double, long int, float

36. What is the maximum number of dimensions an array in C may have?

A. 2

B. 8

C. 50

D. Theoratically no limit. The only practical limits are memory size and compilers.

Answer: Option D

37. What is (void*)0?

A. Representation of NULL pointer

B. Representation of void pointer

C. Error

D. None of above

Answer: Option A

38. Which bitwise operator is suitable for turning off a particular bit in a number?

A. && operator

B. & operator

C. || operator

D. ! operator

Answer: Option B

39. What do the following declaration signify?

int *ptr[30];

A. ptr is a pointer to an array of 30 integer pointers.

B. ptr is a array of 30 pointers to integers.

C. ptr is a array of 30 integer pointers.

D. ptr is a array 30 pointers.

Answer: Option B

40. What will the function rewind() do?

A. Reposition the file pointer to a character reverse.

B. Reposition the file pointer stream to end of file.

C. Reposition the file pointer to begining of that line.

D. Reposition the file pointer to begining of file.

Answer: Option D

41. "My salary was increased by 15%" Select the statement, which will EXACTLY reproduce the line of text above.

A. printf("My salary was increased by 15/%!");

B. printf("My salary was increased by 15%!");

C. printf("My salary was increased by 15'%'!");
D. printf("My salary was increased by 15%%!");

Answer: Option D
42. Which header file should be included to use functions like malloc() and calloc()?
A. memory.h
B. stdlib.h
C. string.h
D. dos.h

Answer: Option B
43. What do the following declaration signify?
char **argv;
A. argv is a pointer to pointer.
B. argv is a pointer to a char pointer.
C. argv is a function pointer.
D. argv is a member of function pointer.

Answer: Option B
44. What is the difference between a declaration and a definition of a variable?
A. Both can occur multiple times, but a declaration must occur first.
B. A definition occurs once, but a declaration may occur many times.
C. Both can occur multiple times, but a definition must occur first.
D. A declaration occurs once, but a definition may occur many times.

Answer: Option D
45. Which of following is not a valid name for a C variable?
A. Examveda
B. Exam_veda
C. Exam veda
D. Both A and B

Answer: Option C
46. Which of the following range is a valid long double (Turbo C in 16 bit DOS OS) ?
A. 3.4E-4932 to 1.1E+4932
B. 3.4E-4932 to 3.4E+4932
C. 1.1E-4932 to 1.1E+4932
D. 1.7E-4932 to 1.7E+4932

Answer: Option A
47. What will you do to treat the constant 3.14 as a float?
A. use float(3.14f)
B. use 3.14f
C. use f(3.14)
D. use (f)(3.14)

Answer: Option B
48. Which of the following operations can be performed on the file "NOTES.TXT" using the below code?
FILE *fp;
fp = fopen("NOTES.TXT", "r+");
A. Reading
B. Writing
C. Appending
D. Read and Write

Answer: Option D
49. In the following code what is 'P'?
typedef char *charp;
const charp P;
A. P is a constant
B. P is a character constant
C. P is character type
D. None of above

Answer: Option A
50. What do the following declaration signify?
void (*cmp)();
A. cmp is a pointer to an void function type.
B. cmp is a void type pointer function.
C. cmp is a function that return a void pointer.
D. cmp is a pointer to a function which returns void .

Answer: Option D
51. To print out a and b given below, which of the following printf() statement will you use?
#include<stdio.h>
float a=3.14;
double b=3.14;

A. printf("%f %lf", a, b);
B. printf("%Lf %f", a, b);
C. printf("%Lf %Lf", a, b);
D. printf("%f %Lf", a, b);

Answer: Option A
52. What is stderr ?
A. standard error
B. standard error types
C. standard error streams
D. standard error definitions

Answer: Option C
53. Which statement will you add in the following program to work it correctly?
#include<stdio.h>
int main()
{
printf("%f\n", log(36.0));
return 0;
}
A. #include<conio.h>
B. #include<math.h>
C. #include<stdlib.h>
D. #include<dos.h>

Answer: Option B
54. Which standard library function will you use to find the last occurance of a character in a string in C?
A. strnchar()
B. strchar()
C. strrchar()
D. strrchr()

Answer: Option D
55. What will you do to treat the constant 3.14 as a long double?
A. use 3.14LD
B. use 3.14L
C. use 3.14DL
D. use 3.14LF

Answer: Option B

56. What do the following declaration signify?
char *scr;
A. scr is a pointer to pointer variable.
B. scr is a function pointer.
C. scr is a pointer to char.
D. scr is a member of function pointer.

Answer: Option C
57. What is the purpose of fflush() function.
A. flushes all streams and specified streams.
B. flushes only specified stream.
C. flushes input/output buffer.
D. flushes file buffer.

Answer: Option A
58. What is stderr ?
A. standard error
B. standard error types
C. standard error streams
D. standard error definitions

Answer: Option C
59. The binary equivalent of 5.375 is
A. 101.101110111
B. 101.011
C. 101011
D. None of above

Answer: Option B
60. What would be the equivalent pointer expression for referring the array element a[i][j][k][l]
A. ((((a+i)+j)+k)+l)
B. *(*(*(*(a+i)+j)+k)+l)
C. (((a+i)+j)+k+l)
D. ((a+i)+j+k+l)

Answer: Option B
61. Which of the following function is more appropriate for reading in a multi-word string?
A. printf();
B. scanf();

C. gets();
D. puts();

Answer: Option C
62. What will you do to treat the constant 3.14 as a long double?
A. use 3.14LD
B. use 3.14L
C. use 3.14DL
D. use 3.14LF

Answer: Option B
63. Which statement will you add in the following program to work it correctly?
#include<stdio.h>
int main()
{
printf("%f\n", log(36.0));
return 0;
}
A. #include<conio.h>
B. #include<math.h>
C. #include<stdlib.h>
D. #include<dos.h>

Answer: Option B
64. What will you do to treat the constant 3.14 as a float?
A. use float(3.14f)
B. use 3.14f
C. use f(3.14)
D. use (f)(3.14)

Answer: Option B
65. Which files will get closed through the fclose() in the following program?
#include<stdio.h>
int main()
{
FILE *fs, *ft, *fp; fp = fopen("A.C", "r");
fs = fopen("B.C", "r");
ft = fopen("C.C", "r");
fclose(fp, fs, ft);

```
return 0;
}
```
A. "A.C" "B.C" "C.C"
B. "B.C" "
C.C" C. "A.C"
D. Error in fclose()

Answer: Option D
66. What will be printed after execution of the following code?
void main()
{
int arr[10] = {1,2,3,4,5};
printf("%d", arr[5]);
}
A. Garbage Value
B. 5
C. 6
D. 0

Answer: Option D
67. What do the following declaration signify?
char *arr[10];
A. arr is a array of 10 character pointers.
B . arr is a array of function pointer.
C. arr is a array of characters.
D. arr is a pointer to array of characters.

Answer: Option A
68. If the two strings are identical, then strcmp() function returns
A. -1
B. 1
C. 0
D. Yes

Answer: Option C
69. Can you combine the following two statements into one?
char *p; p = (char*) malloc(100);
A. char p = *malloc(100);
B. char *p = (char) malloc(100);
C. char *p = (char*)malloc(100);
D. char *p = (char *)(malloc*)(100);

Answer: Option C

70. Which statement will you add in the following program to work it correctly?

```
#include<stdio.h>
int main()
{
printf("%f\n", log(36.0));
return 0;
}
```

A. #include<conio.h>
B. #include<math.h>
C. #include<stdlib.h>
D. #include<dos.h>

Answer: Option B

71. Which header file should be included to use functions like malloc() and calloc()?

A. memory.h
B. stdlib.h
C. string.h
D. dos.h

Answer: Option B

72. How will you print \n on the screen?

A. printf("\n");
B. echo "\\n";
C. printf('\n');
D. printf("\\n");

Answer: Option D

73. Which of the following statement obtains the remainder on dividing 5.5 by 1.3 ?

A. rem = (5.5 % 1.3)
B. rem = modf(5.5, 1.3)
C. rem = fmod(5.5, 1.3)
D. Error: we can't divide

Answer: Option C

74. What is the similarity between a structure, union and enumeration?

A. All of them let you define new values
B. All of them let you define new data types
C. All of them let you define new pointers
D. All of them let you define new structures

Answer: Option B
75. Specify the 2 library functions to dynamically allocate memory?
A. malloc() and memalloc()
B. alloc() and memalloc()
C. malloc() and calloc()
D. memalloc() and faralloc()

Answer: Option C
76. What do the following declaration signify?
char **argv;
A. argv is a pointer to pointer.
B. argv is a pointer to a char pointer.
C. argv is a function pointer.
D. argv is a member of function pointer.

Answer: Option B
77. What is right way to Initialize array?
A. int num[6] = { 2, 4, 12, 5, 45, 5 };
B. int n{} = { 2, 4, 12, 5, 45, 5 };
C. int n{6} = { 2, 4, 12 };
D. int n(6) = { 2, 4, 12, 5, 45, 5 };

Answer: Option A
78. If integer needs two bytes of storage, then maximum value of an unsigned integer is
A. 216 – 1
B. 215 – 1
C. 216
D. 215

Answer: Option A
79. Which standard library function will you use to find the last occurance of a character in a string in C?
A. strnchar()
B. strchar()
C. strrchar()
D. strrchr()

Answer: Option D

80. What will happen if in a C program you assign a value to an array element whose subscript exceeds the size of array?
A. The element will be set to 0.
B. The compiler would report an error.
C. The program may crash if some important data gets overwritten.
D. The array size would appropriately grow.

Answer: Option C

81. In which order do the following gets evaluated
1. Relational
2. Arithmetic
3. Logical
4. Assignment

A. 2134
B. 1234
C. 4321
D. 3214

Answer: Option A

82. In which stage the following code #include<stdio.h> gets replaced by the contents of the file stdio.h
A. During editing
B. During linking
C. During execution
D. During preprocessing

Answer: Option D

83. What do the 'c' and 'v' in argv stands for?
A. 'c' means argument control 'v' means argument vector
B. 'c' means argument count 'v' means argument vertex
C. 'c' means argument count 'v' means argument vector
D. 'c' means argument configuration 'v' means argument visibility

Answer: Option C

84. What is the correct value to return to the operating system upon the successful completion of a program?
A. 1
B. -1
C. 0
D. Program do no return a value.

Answer: Option C
85. What number would be shown on the screen after the following statements of C are executed?
char ch;
int i;
ch = 'G';
i = ch-'A';
printf("%d", i);
A. 5
B. 6
C. 7
D. 8
E. 9

Answer: Option B
86. Which of the following correctly shows the hierarchy of arithmetic operations in C?
A. / + * -
B. * − / +
C. + − / *
D. / * + −

Answer: Option D
87. Which of the following are unary operators in C?
1. !
2. sizeof
3. ~
4. &&
A. 1, 2
B. 1, 3
C. 2, 4
D. 1, 2, 3

Answer: Option D
88. What would be the equivalent pointer expression for referring the array element a[i][j][k][l]
A. ((((a+i)+j)+k)+l)
B. *(*(*(*(a+i)+j)+k)+l)
C. (((a+i)+j)+k+l)
D. ((a+i)+j+k+l)

Answer: Option B

89. To scan a and b given below, which of the following scanf() statement will you use?

#include<stdio.h>

float a;

double b;

A. scanf("%f %f", &a, &b);

B. scanf("%Lf %Lf", &a, &b);

C. scanf("%f %Lf", &a, &b);

D. scanf("%f %lf", &a, &b);

Answer: Option D

90. What will you do to treat the constant 3.14 as a long double?

A. use 3.14LD

B. use 3.14L

C. use 3.14DL

D. use 3.14LF

Answer: Option B

91. Declare the following statements?

"An array of three pointers to chars".

A. char *ptr[3]();

B. char *ptr[3];

C. char (*ptr[3])();

D. char **ptr[3];

Answer: Option B

92. What do the following declaration signify?

int *f();

A. f is a pointer variable of function type.

B. f is a function returning pointer to an int.

C. f is a function pointer.

D. f is a simple declaration of pointer variable.

Answer: Option B

93. Which of the following range is a valid long double (Turbo C in 16 bit DOS OS) ?

A. 3.4E-4932 to 1.1E+4932

B. 3.4E-4932 to 3.4E+4932

C. 1.1E-4932 to 1.1E+4932

D. 1.7E-4932 to 1.7E+4932

Answer: Option A

94. What will be printed after execution of the following code?
void main() { int arr[10] = {1,2,3,4,5}; printf("%d", arr[5]); }

A. Garbage Value
B. 5
C. 6
D. 0

Answer:Option D

95. Which one of the following is not a reserved keyword for C?
A. auto
B. case
C. main
D. default
E. register

Answer: Option C

96. A C variable cannot start with
A. A number
B. A special symbol other than underscore
C. Both of the above
D. An alphabet

Answer: Option C

97. Which of the following is not a correct variable type?
A. float
B. real
C. int
D. double
E. char

Answer: Option B

98. Find the output of the following program.
void main()
{
int i=01289;
printf("%d", i);
}
A. 0289
B. 1289
C. 713

D. 0713
E. Syntax error

Answer: Option E
99. By default a real number is treated as a
A. Float
B. Double
C. long double
D. far double

Answer: Option B
100. The binary equivalent of 5.375 is
A. 101.101110111
B. 101.011
C. 101011
D. None of above

Answer: Option B

1) Choose correct statement about Functions in C Language.
A) A Function is a group of c statements which can be reused any number of times.
B) Every Function has a return type.
C) Every Function may no may not return a value.
D) All the above.
Answer [=]
D

2) Choose a correct statement about C Language Functions.
A) A function name can not be same as a predefined C Keyword.
B) A function name can start with an Underscore(_) or A to Z or a to z.
C) Default return type of any function is an Integer.
D) All the above.
Answer [=]
D

3) Choose a correct statement about C Function.?

```
main()
```

```
{
    printf("Hello");
}
```

A) "main" is the name of default must and should Function.
B) main() is same as int main()
C) By default, return 0 is added as the last statement of a function without specific return type.
D) All the above

4) A function which calls itself is called a ___ function.

A) Self Function
B) Auto Function
C) Recursive Function
D) Static Function

5) What is the output of C Program with Functions.?

```
int main()
{

    void show()
    {
        printf("HIDE");
    }

    show();

    return 0;
}
```

A) No output
B) HIDE
C) Compiler error

D) None of the above

6) What is the output of C Program with functions.?

```
void show();


int main()
{
    show();
    printf("ARGENTINA ");
    return 0;
}


void show()
{
    printf("AFRICA ");
}
```

A) ARGENTINA AFRICA
B) AFRICA ARGENTINA
C) ARGENTINA
D) Compiler error

7) What is the output of C Program with functions.?

```
int main()
{
    show();
    printf("BANK ");
```

```
    return 0;

}


void show()

{

    printf("CURRENCY ");

}
```

A) CURRENCY BANK
B) BANK CURRENCY
C) BANK
D) Compiler error

Answer [=]
D
Explanation:
Yes. Compiler error. Before calling the show(); function, its Function Prototype should be declared before outside of main() and before main().

```
void show();

int main()

{

    show();

    printf("BANK ");

    return 0;

}
```

8) How many values can a C Function return at a time.?
A) Only One Value
B) Maximum of two values
C) Maximum of three values
D) Maximum of 8 values

Answer [=]
A

9) What is the output of a C program with functions.?

```c
void show();

void main()
{
    show();
    printf("RAINBOW ");

    return;
}

void show()
{
    printf("COLOURS ");
}
```

A) RAINBOW COLOURS
B) COLOURS RAINBOW
C) COLOURS
D) Compiler error

Answer [=]

B

Explanation:

VOID functions should not return anything. RETURN; is returning nothing.

1. First void main() return; nothing. Still it is valid.

2. Second void show() function is NO RETURN statement. It is also valid.

10) What is the output of C Program.?

```c
void show();

void main()
```

```c
{

    printf("PISTA ");

    show();

}


void show()

{

    printf("CACHEW ");

    return 10;

}
```

A) PISTA CACHEW
B) CASHEW PISTA
C) PISTA CASHEW with compiler warning
D) Compiler error

11) What is the output of C Program with functions.?

```c
int show();


void main()

{

    int a;

    printf("PISTA COUNT=");

    a=show();

    printf("%d", a);

}


int show()

{

    return 10;
```

```
}
```

A) PISTA COUNT=
B) PISTA COUNT=0
C) PISTA COUNT=10
D) Compiler error

12) What is the output of C Program with functions.?

```
void main()

{

    int a;

    printf("TIGER COUNT=");

    a=show();

    printf("%d", a);

}


int show()

{

    return 15;

    return 35;

}
```

A) TIGER COUNT=15
B) TIGER COUNT=35
C) TIGER COUNT=0
D) Compiler error

13) What are types of Functions in C Language.?

A) Library Functions
B) User Defined Functions
C) Both Library and User Defined
D) None of the above

C

14) What is the output of C program with functions.?

```
int show();


void main()

{

    int a;

    a=show();

    printf("%d", a);

}


int show()

{

    return 15.5;

    return 35;

}
```

A) 15.5
B) 15
C) 0
D) Compiler error

B
Explanation:
It is perfectly Okay to return a float number 15.5 as an Integer inside int show() function. 15.5 is demoted to integer as 15 and returned.

```
int myshow(int);

void main()
{
    myshow(5);
    myshow(10);
}

int myshow(int b)
{
    printf("Received %d, ", b);
}
```

A) Received 5, Received 10,
B) Received 10, Received 5,
C) Received 0, Received 0,
D) Compiler error

Answer [=]

A

Explanation:
Notice the function prototype declaration int myshow(int). If you declare wrong either Compiler warning or error is thrown. myshow(5) passes number 5. 5 is received as variable int b.

16) What is the output of C Program with functions and pointers.?

```
int myshow(int);

void main()
{
    int a=10;
```

```
    myshow(a);

    myshow(&a);

}


int myshow(int b)

{

    printf("Received %d, ", b);

}
```

A) Received 10, Received 10,
B) Received 10, Received RANDOMNumber,
C) Received 10, Received RANDOMNumber, with a compiler warning
D) Compiler error

17) What is the output of C Program with functions and pointers.?

```
int myshow(int *);


void main()

{

    int a=10;

    myshow(&a);

}


int myshow(int *k)

{

    printf("Received %d, ", *k);

}
```

A) Received RANDOMNumber,
B) Received 10,
C) Received 10,
D) Compiler error

C

Explanation:
It is called Passing a variable by reference. You are passing &a instead of a. Address of a or &a is received as int *k. Observe the function prototype declaration before main(), int myshow(int *).

18) What is the output of C Program with functions and pointers.?

```
void myshow(int *);


void main()
{
    int a=10;
    printf("%d ", a);
    myshow(&a);
    printf("%d", a);


}


void myshow(int *k)
{
    *k=20;
}
```

A) 10 10
B) 20 20
C) 10 20
D) Compiler error

C
Explanation:

19) What is the output of C Program with functions.?

```c
void myshow(int);


void main()
{
    int a=10;

    printf("%d ", a);

    myshow(a);

    printf("%d", a);


}


void myshow(int k)
{
    k=20;
}
```

A) 10 10
B) 20 20
C) 10 20
D) Compiler error

Answer [=]
A
Explanation:
You passed variable a directly by value. myshow(a). k=20 will not actually change the variable a as variable k and variable a are completely different. It is called Pass By Value.

20) Choose correct statements about C Language Pass By Value.

A) Pass By Value copies the variable value in one more memory location.
B) Pass By Value does not use Pointers.

C) Pass By Value protects your source or original variables from changes in outside functions or called functions.
D) All the above

1) Identify wrong C Keywords below.
A) auto, double, int, struct
B) break, else, long, switch
C) case, enum, register, typedef
D) char, extern, intern, return

2) Identify wrong C Keywords below.
A) union, const, var, float
B) short, unsigned, continue, for
C) signed, void, default, goto
D) sizeof, volatile, do, if

3) Identify wrong C Keywords below.
A) static, while, break, goto
B) struct, construct, signed, unsigned
C) short, long, if, else
D) return, enum, struct, do

4) Find a correct C Keyword below.

A) breaker
B) go to
C) shorter
D) default

5) Find a correct C Keyword below.

A) work
B) case
C) constant
D) permanent

6) Find a correct C Keyword.

A) Float
B) Int
C) Long
D) double

7) Types of Integers are.?

A) short
B) int
C) long
D) All the above

8) Types of Real numbers in C are.?

A) float

B) double
C) long double
D) All the above

9) signed and unsigned representation is available for.?

A) short, int, long, char
B) float, double, long double
C) A & B
D) None of the above

10) Size of a Turbo C C++ compiler is.?

A) 16 bit
B) 32 bit
C) 64 bit
D) 128 bit

11) Size of a GCC or Visual Studio C Compiler is.?

A) 16 bit
B) 32 bit
C) 64 bit
D) 128 bit

12) Sizes of short, int and long in a Turbo C C++ compiler in bytes are.?

A) 2, 2, 4
B) 2, 4, 4
C) 4, 8, 16
D) 8, 8, 16

13) Sizes of short, int and long in Visual Studio or GCC compiler in bytes are.?

A) 2, 2, 4
B) 2, 4, 4
C) 4, 4, 8
D) 4, 8, 8

14) Range of signed char and unsigned char are.?

A) -128 to +127 0 to 255
B) 0 to 255 -128 to +127
C) -128 to -1 0 to +127
D) 0 to +127 -128 to -1

Explanation:
Advantage of an unsigned representation is only to increase the upper limit i.e positive limit. Size of a char remains same i.e 1 Byte.

15) Ranges of signed int and unsigned int are.?

A) 0 to 65535 -32768 to +32767
B) -32768 to +32767 0 to 65535
C) -32767 to +32768 0 to 65536
D) 0 to 65536 -32767 to +32768

Explanation:
Default assumption is Turbo C/C++, 16 bit compiler. Size of an int is 2 bytes for both signed and unsigned representation.

16) Size of float, double and long double in Bytes are.?

A) 4, 8, 16
B) 4, 8, 10

C) 2, 4, 6
D) 4, 6, 8

17) Range of singed long and unsigned long variables are.?

A) -2147483647 to +2147483648 0 to 4294967295
B) -2147483648 to +2147483647 0 to 4294967296
C) -2147483648 to +2147483647 0 to 4294967295
D) 0 to 4294967295 -2147483648 to +2147483647

18) Range of float variable is.?

A) -3.2e38 to +3.2e38
B) -3.8e32 to +3.8e32
C) -3.4e34 to +3.4e34
D) -3.4e38 to +3.4e38

19) Left most bit 0 in Singed representation indicates.?

A) A Positive number
B) A Negative Number
C) An Unsigned number
D) None of the above

For negative numbers 1 is used as a left most bit.

20) If you do not specify a storage class for a Variable.?

A) You get compiler error.
B) You get a compiler warning.
C) Output is null always
D) None of the above

Answer [=]

D

Explanation:

Yes. Even if you do not specify a Storage class for a Variable, AUTOMATIC storage class is applied.

1. Which of the following is not a data type?
a) Symbolic Data
b) Alphanumeric Data
c) Numeric Data
d) Alphabetic Data
View Answer

Answer: a

Explanation: Data types are of three basic types: Numeric, Alphabetic and Alphanumeric. Numeric Data consists of only numbers.
Alphabetic Data consists of only letters and a blank character and alphanumeric data consists of symbols.

2. *@Ac# is a type of _____ data.
a) Symbolic
b) Alphanumeric
c) Alphabetic
d) Numeric
View Answer

Answer: b

Explanation: Alphanumeric data consists of symbols. Alphanumeric data may be a letter, either in uppercase or lowercase or some special symbols like #,^,*,(, etc.

3. Which of the following is not a valid representation in bits?
a) 8-bit
b) 24-bit
c) 32-bit
d) 64-bit
View Answer

Answer: b
Explanation: There are no criteria like the 24-bit representation of numbers. Numbers can be written in 8-bit, 16-bit, 32-bit and 64-bit as per the IEEE format.

4. What are the entities whose values can be changed called?
a) Constants
b) Variables
c) Modules
d) Tokens
View Answer
Answer: b
Explanation: Variables are the data entities whose values can be changed. Constants have a fixed value. Tokens are the words which are easily identified by the compiler.

5. Which of the following is not a basic data type in C language?
a) float
b) int
c) real
d) char
View Answer
Answer: c
Explanation: There are 5 basic data types in C language: int, char, float, double, void. Int is for the representation of integers, char is for strings and characters, float and double are for floating point numbers whereas void is a valueless special data type.

6. BOOLEAN is a type of data type which basically gives a tautology or fallacy.
a) True
b) False
View Answer
Answer: a
Explanation: A Boolean representation is for giving logical values. It returns either true or false. If a result gives a truth value, it is called tautology whereas if it returns a false term, it is referred to as fallacy.

7. What does FORTRAN stands for?
a) Formula Transfer
b) Formula Transformation
c) Formula Translation
d) Format Transformation
View Answer
Answer: c
Explanation: FORTRAN is a type of computer language. It was developed for solving mathematical and scientific problems. It is very commonly used among the scientific community.

8. The program written by the programmer in high level language is called _____

a) Object Program
b) Source Program
c) Assembled Program
d) Compiled Program
View Answer
Answer: b
Explanation: The program written by the programmer is called a source program. The program generated by the compiler after compilation is called an object program. The object program is in machine language.

9. A standardized language used for commercial applications.
a) C
b) Java
c) COBOL
d) FORTRAN
View Answer
Answer: c
Explanation: COBOL is a language used in business and commercial applications. It stands for Common Business Oriented Language. It is imperative, procedural as well as object oriented language.

10. _____ define how the locations can be used.
a) Data types
b) Attributes
c) Links
d) Data Objects
View Answer
Answer: b
Explanation: Attributes can determine how any location can be used. Attributes can be type, name, component, etc. Data objects are the variables and constants in a program.

1. How many keywords are there in c ?

  A. 31
  B. 32
  C. 64
  D. 63
View Answer
Ans : B

Explanation: There are total 32 keywords in C.Keywords are those words whose meaning is already defined by Compiler.C Keywords are also called as Reserved words.

2. Which of the following is true for variable names in C?

    A. Variable names cannot start with a digit
    B. Variable can be of any length
    C. They can contain alphanumeric characters as well as special characters
    D. Reserved Word can be used as variable name
View Answer
Ans : A

Explanation: Variable names cannot start with a digit in C Programming language.

3. Which of the following cannot be a variable name in C?

    A. TRUE
    B. friend
    C. export
    D. volatile
View Answer
Ans : D

Explanation: volatile is C keyword.Volatile in C programming language signify that the compiler that the software in hand (the thread for the routine it's compiling) doesn't have exclusive control over the variable described as "volatile"

4. What is the output of this program?

```
void main()

{

int x = 10;

float x = 10;

printf("%d", x)

}
```

    A. Compilations Error
    B. 10
    C. 10
    D. 10.1

Ans : A

Explanation: Since the variable x is defined both as integer and as float, it results in an error.

5. What is the output of this program?

```
#include <stdio.h>

int main()

{

    int i;

    for (i = 0;i < 5; i++)

    int a = i;

    printf("%d", a);

}
```

A. Syntax error in declaration of a
B. No errors, program will show the output 5
C. Redeclaration of a in same scope throws error
D. a is out of scope when printf is called
Ans : A

Explanation: the output of this program is the Syntax error in declaration of variable a.

6. What is the output of this program?

```
#include <stdio.h>

int var = 20;

int main()

{

  int var = var;

  printf("%d ", var);

  return 0;
```

```
    }
```

A. Garbage Value
B. 20
C. Compiler Error
D. None of these

View Answer

Ans : A

Explanation: First var is declared, then value is assigned to it. As soon as var is declared as a local variable, it hides the global variable var.

7. What is the output of this program?

```
void main()

{

        int p, q, r, s;

        p = 1;

        q = 2;

        r = p, q;

        s = (p, q);

        printf("p=%d q=%d", p, q);

}
```

A. p=1 q=1
B. p=1 q=2
C. p=2 q=2
D. Invalid Syntex

View Answer

Ans : B

Explanation: The comma operator evaluates both of its operands and produces the value of the second. It also has lower precedence than assignment. Hence r = p, q is equivalent to r = p, while s = (p, q) is equivalent to s = q.

8. What is the output of this program?

```
void main()

{

    printf("%x",-1<<4);

}
```

A. fff0
B. fff1
C. fff2
D. fff3

View Answer

Ans : A

Explanation: -1 will be represented in binary form as: 1111 1111 1111 1111 Now -1<<4 means 1 is Shifted towards left by 4 positions, hence it becomes: 1111 1111 1111 0000 in hexadecimal form - fff0.

9. What is the output of this program?

```
#include <stdio.h>

void main()

{

    int a=1, b=2, c=3, d;

    d = (a=c, b+=a, c=a+b+c);

    printf("%d %d %d %d", d, a, b, c);

}
```

A. 11 3 5 11
B. 11 1 5 11
C. 11 3 2 11
D. 11 3 3 11

View Answer

Ans : A

Explanation: For any comma separated expression the outcome is the right most part.

10. What is the output of this program?

```
void main()
```

```
{

    int a, b = 5, c;

    a = 5 * (b++);

    c = 5 * (++b);

    printf("%d %d",a,c);

}
```

    A. 30 35
    B. 30 30
    C. 25 30
    D. 25 35
View Answer
Ans : D

Explanation: a = 5 * 5 and b = 5 * 7

11. What is size of int in C ?

    A. 2 bytes
    B. 4 bytes
    C. 8 bytes
    D. Depends on the system/compiler
View Answer
Ans : D

Explanation: The size of the datatypes depend on the system.The size of "int", in fact every other data type as well is compiler dependent and not language dependent. Based on how a compiler is implemented, it can take either 2 bytes or 4 bytes.

12. Range of double is -1.7e-38 to 1.7e+38 (in 16 bit platform - Turbo C under DOS)

    A. TRUE
    B. FALSE
    C. May Be
    D. Can't Say
View Answer
Ans : B

Explanation: The range of double is -1.7e+308 to 1.7e+308.

13. Which is false?

A. Constant variables need not be defined as they are declared and can be defined later
B. Global constant variables are initialized to zero
C. const keyword is used to define constant values
D. You cannot reassign a value to a constant variable

View Answer

Ans : A

Explanation: Since the constant variable has to be declared and defined at the same time, not doing it results in an error..

14. Array is _____ datatype in C Programming language.

A. Derived Data type
B. Primitive Data type
C. Custom Data type
D. None of these

View Answer

Ans : A

Explanation: Data types simply refers to the type and size of data associated with variables and functions.It is of two types :- Fundamental Data Types and Derived Data Types. Array is Derived Data type datatype in C Programming language.

15. If you pass an array as an argument to a function, what actually gets passed?

A. Address of last element of Array
B. Value of first element
C. Base address of array
D. Value of elements in array

View Answer

Ans : C

Explanation: Base address of array is passed.

16. When double is converted to float, the value is?

A. Rounded
B. Truncated
C. Depends on the standard
D. Depends on the compiler

View Answer
Ans : D

Explanation: When double is converted to float, the value will be Depends on the compiler.

17. Which of the following is not a logical operator?

   A. !
   B. &&
   C. ||
   D. |
View Answer
Ans : D

Explanation: && - Logical AND ! - Logical NOT || - Logical OR | - Bitwise OR(used in bitwise manipulations)

18. What is the output of this program?

```
#include <stdio.h>

int main(){

    printf("%d",EOF);

    return 0;

}
```

   A. 0
   B. 1
   C. -1
   D. NULL
View Answer
Ans : C

Explanation: EOF is macro which has been defined in stdio.h and it is equivalent to -1.

19. What is the output of this program?

```
#include <stdio.h>

int main(){
```

```
    char num = '10';

        printf("%d", num);

        return 0;

}
```

  A. 49
  B. 48
  C. 10
  D. 8
View Answer
Ans : B

Explanation: It will print the ascii value of 0, i.e it will print the ascii value of last character always

20. What is the output of this program?

```
#include <stdio.h>

int main(){

    void  num=10;

        printf("%v", num);

        return 0;

}
```

  A. Compilation error
  B. 10
  C. Garbage value
  D. 0
View Answer
Ans : A

Explanation: Void is not a valid data type for declaring variables.

21. Which of the following can have different meaning in different contexts?

  A. &
  B. *
  C. Both A and B
  D. None of the above
View Answer

Ans : A

Explanation: & have different meaning in different contexts.

22. Which of the following is not a valid declaration in C?
 1. short int x;Â Â Â Â
2. signed short x;
3. short x;
4. unsigned short x;

    A. 1 and 2
    B. 2 and 4
    C. 3 and 4
    D. All are valid
View Answer
Ans : D

Explanation: All are valid. First 3 mean the same thing. 4th means unsigned.

23. The minimum number of temporary variable needed to swap the content two variables is?

    A. 2
    B. 3
    C. 0
    D. 1
View Answer
Ans : C

Explanation: Without any temporary variable ,one can swap two variables easily. For Example :- var a ,b; a=a+b; b=a-b; a=a-b;

24. What is short int in C programming?

    A. The basic data type of C
    B. Qualifier
    C. Short is the qualifier and int is the basic datatype
    D. All of the mentioned
View Answer
Ans : C

Explanation: short is the qualifier and int is the basic datatype.

25. The precedence of arithmetic operators is (from highest to lowest)?

   A. %, *, /, +, -
   B. %, +, /, *, -
   C. %, +, -, *, /
   D. +, -, %, *, /
View Answer
Ans : A

Explanation: All arithmetic operators in C language follow the left to right associativity. Their precedence from highest to lowest is as given below: () => Brackets % => Modulus * => Multiplication / => Division + => Addition - => Subtraction In an arithmetic operation, the higher precedence operators are evaluated first followed by the lower value operators.

26. Which of the following data type will throw an error on modulus operation(%)?

   A. int
   B. char
   C. float
   D. long
View Answer
Ans : C

Explanation: Float data type will throw an error on modulus operation(%).

27. Relational operators cannot be used on:

   A. String
   B. float
   C. long
   D. structure
View Answer
Ans : D

Explanation: structure cannot be used on Relational operators.

28. What is the output of this program?

```c
#include <stdio.h>

int main(){

    printf("%d       ",sizeof(2.5));

        printf("%d    ",sizeof(2));

        printf("%d",sizeof('A'));

        return 0;

}
```

   A. 8 4 2
   B. 4 4 1
   C. 8 4 1
   D. 4 4 2
View Answer
Ans : B

Explanation: C compiler by default will assign any undeclared float data type as double.
Thus 8 4 1 is outputted

29. What is the output of this program?

```c
#include <stdio.h>

int main(){

    signed a;

        unsigned b;

        a = 6u + -16 + 16u + -6;

        b = a + 1;

        if(a == b)

        printf("%d %d",a,b);

        else

        printf("%u %u",a, b);

    return 0;

}
```

A. Compilation error
B. 1 0
C. 0 0
D. 0 1

View Answer

Ans : D

Explanation: Clearly, a != b and it execute the else part, where we ask compiler to display the value of a and b.

30. By default a real number is treated as a

A. float
B. double
C. long double
D. far double

View Answer

Ans : B

Explanation: A double is a more accurate way of representing floating point numbers due to more digits of precision and defaulting to a double for constants will yield more accurate and consistent answers.

1. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int i;
3.    int main()
4.    {
5.        extern int i;
6.        if (i == 0)
7.            printf("scope rules\n");
8.    }
```

a) scope rules
b) Compile time error due to multiple declaration
c) Compile time error due to not defining type in statement extern i
d) Nothing will be printed as value of i is not zero because i is an automatic variable

View Answer

Answer: a
Explanation: None.

2. What will be the output of the following C code (without linking the source file in which ary1 is defined)?

```
1.    #include <stdio.h>
```

```
2.      int main()
3.      {
4.          extern ary1[];
5.          printf("scope rules\n");
6.      }
```

a) scope rules
b) Linking error due to undefined reference
c) Compile time error because size of array is not provided
d) Compile time error because datatype of array is not provided
View Answer

Answer: a
Explanation: None.

3. What will be the output of the following C code (after linking to source file having definition of ary1)?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          extern ary1[];
5.          printf("%d\n", ary1[0]);
6.      }
```

a) Value of ary1[0];
b) Compile time error due to multiple definition
c) Compile time error because size of array is not provided
d) Compile time error because datatype of array is not provided
View Answer

Answer: d
Explanation: None.

4. What is the scope of an external variable?
a) Whole source file in which it is defined
b) From the point of declaration to the end of the file in which it is defined
c) Any source file in a program
d) From the point of declaration to the end of the file being compiled
View Answer

Answer: d
Explanation: None.

5. What is the scope of a function?
a) Whole source file in which it is defined
b) From the point of declaration to the end of the file in which it is defined
c) Any source file in a program
d) From the point of declaration to the end of the file being compiled
View Answer

Answer: d
Explanation: None.

6. Comment on the output of the following C code.

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i;
5.        for (i = 0; i < 5; i++)
6.        int a = i;
7.        printf("%d", a);
8.    }
```

a) a is out of scope when printf is called
b) Redeclaration of a in same scope throws error
c) Syntax error in declaration of a
d) No errors, program will show the output 5
View Answer
Answer: c
Explanation: None.

7. Which variable has the longest scope in the following C code?

```
1.    #include <stdio.h>
2.    int b;
3.    int main()
4.    {
5.        int c;
6.        return 0;
7.    }
8.    int a;
```

a) a
b) b
c) c
d) Both a and b
View Answer
Answer: b
Explanation: None.

8. Comment on the following 2 C programs.

```
1.    #include <stdio.h> //Program 1
2.    int main()
3.    {
4.        int a;
5.        int b;
6.        int c;
7.    }
8.
9.    #include <stdio.h> //Program 2
10.          int main()
11.          {
12.              int a;
13.              {
14.                  int b;
```

```
15.                    }
16.                    {
17.                         int c;
18.                    }
19.              }
```

a) Both are same

b) Scope of c is till the end of the main function in Program 2

c) In Program 1, variables a, b and c can be used anywhere in the main function whereas in Program 2, variables b and c can be used only inside their respective blocks

d) None of the mentioned

View Answer

Answer: c

Explanation: None.

1. A C program is a combination of.?

a) Statements
b) Functions
c) Variables
d) All of the above

View Answer

Answer: **D**
Explanation: No explanation is given for this question.

2.Single Line Comment // is also called.?

a) C++ Style Comment
b) Java Style Comment
c) PHP Style Comment
d) All the above

View Answer

Answer: **D**
Explanation: No explanation is given for this question.

---

3. What is an Identifier in C Language.?

a) Name of a Function or Variable
b) Name of a Macros
c) Name of Structure or Union
d) All the above.

View Answer

Answer: **D**
Explanation: int age=25;
//here age is an Identifier

4. An Identifier may contain.?
a) Letters a-z, A-Z in Basic character set. Unicode alphabet characters other languages
b) Underscore _ symbol
c) Numbers 0 to 9. Unicode Numbers in other languages
d) All the above

View Answer

Answer: **D**
Explanation: No explanation is given for this question.

---

5. What is the number of characters used to distinguish Identifier or Names of Functions and Global variables.?
a) 31
b) 32
c) 30
d) 29.

View Answer

Answer: **A**
Explanation: First 31 characters in general. If first 31 characters are same for two different identifiers, compiler gets confused.

---

6. What is length of an Identifier that is unique for Non Global Variables and Non Function Names.?
a) 32
b) 63
c) 64
d) 56b

View Answer

Answer: **B**
Explanation: if 31 is present choose. Because old compilers support up to 31 only.
Upto first 63 characters you can show differentiation in the name of say
int abcdefghijklmnopqrstuvwxyz1234567788= 10;
int abcdefghijklmnopqrstuvwxyz1234567799 = 20;

---

7. C Programs are used in .?
a) Any Electronic device which works on some logic and Operating System.
b) Washing machine
c) Fridge, Microwave Ovens
d) All the above.

Answer: **D**
Explanation: C is very fast to execute and safe to embed along with microprocessors. Device drivers are written in C and C++.

---

8. Number of Keywords present in C Language are .?
a) 32
b) 33
c) 63
d) 64

Answer: **A**
Explanation: Only 32 Keywords originally. Compilers are individual companies can include and use extra keywords if required. Such keywords should preceed with __ (two Underscore symbols before names).
eg. __mykeyword

---

9. Each statement in a C program should end with.?
a) Semicolon ;
b) Colon :
c) Period . (dot symbol)
d) None of the these.

Answer: **D**
Explanation: e.g:- int amount = 10;
float a,b;

---

10. Dennis Was Author of Famous Programming Book _____ .
a) C Programming and Techniques
b) Thinking in C
c) The C Programming Language
d) Learn C Step By Step

Answer: **C**
Explanation: The C Programming Language

1. Which is valid C expression?
a) int my_num = 100,000;
b) int my_num = 100000;

c) int my num = 1000;
d) int $my_num = 10000;
View Answer
Answer: b
Explanation: Space, comma and $ cannot be used in a variable name.

2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        printf("Hello World! %d \n", x);
5.        return 0;
6.    }
```

a) Hello World! x;
b) Hello World! followed by a junk value
c) Compile time error
d) Hello World!
View Answer
Answer: c
Explanation: It results in an error since x is used without declaring the variable x.
Output:
$ cc pgm1.c
pgm1.c: In function 'main':
pgm1.c:4: error: 'x' undeclared (first use in this function)
pgm1.c:4: error: (Each undeclared identifier is reported only once
pgm1.c:4: error: for each function it appears in.)

3. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int y = 10000;
5.        int y = 34;
6.        printf("Hello World! %d\n", y);
7.        return 0;
8.    }
```

a) Compile time error
b) Hello World! 34
c) Hello World! 1000
d) Hello World! followed by a junk value
View Answer
Answer: a
Explanation: Since y is already defined, redefining it results in an error.
Output:

$ cc pgm2.c
pgm2.c: In function 'main':
pgm2.c:5: error: redefinition of 'y'
pgm2.c:4: note: previous definition of 'y' was here

4. Which of the following is not a valid variable name declaration?
a) float PI = 3.14;
b) double PI = 3.14;
c) int PI = 3.14;
d) #define PI 3.14
View Answer
Answer: d
Explanation: #define PI 3.14 is a macro preprocessor, it is a textual substitution.

5. What will happen if the following C code is executed?

```
1.   #include <stdio.h>
2.   int main()
3.   {
4.       int main = 3;
5.       printf("%d", main);
6.       return 0;
7.   }
```

a) It will cause a compile-time error
b) It will cause a run-time error
c) It will run without any error and prints 3
d) It will experience infinite looping
View Answer
Answer: c
Explanation: A C program can have same function name and same variable name.
$ cc pgm3.c
$ a.out
3

6. What is the problem in the following variable declaration?

float 3Bedroom-Hall-Kitchen?;

a) The variable name begins with an integer
b) The special character '-'
c) The special character '?'
d) All of the mentioned
View Answer
Answer: d
Explanation: A variable name cannot start with an integer, along with that the C

compiler interprets the '-' and '?' as a minus operator and a question mark operator respectively.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int ThisIsVariableName = 12;
5.        int ThisIsVariablename = 14;
6.        printf("%d", ThisIsVariablename);
7.        return 0;
8.    }
```

a) The program will print 12
b) The program will print 14
c) The program will have a runtime error
d) The program will cause a compile-time error due to redeclaration
View Answer
Answer: b
Explanation: Variable names ThisIsVariablename and ThisIsVariableName are both distinct as C is case sensitive.
Output:
$ cc pgm4.c
$ a.out
14

8. Which of the following cannot be a variable name in C?
a) volatile
b) true
c) friend
d) export
View Answer
Answer: a
Explanation: volatile is C keyword.

1. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        float f1 = 0.1;
5.        if (f1 == 0.1)
6.            printf("equal\n");
7.        else
8.            printf("not equal\n");
9.    }
```

a) equal
b) not equal
c) output depends on the compiler

d) error
Answer: b
Explanation: 0.1 by default is of type double which has different representation than float resulting in inequality even after conversion.
Output:
$ cc pgm4.c
$ a.out
not equal

2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        float f1 = 0.1;
5.        if (f1 == 0.1f)
6.            printf("equal\n");
7.        else
8.            printf("not equal\n");
9.    }
```

a) equal
b) not equal
c) output depends on compiler
d) error
Answer: a
Explanation: 0.1f results in 0.1 to be stored in floating point representations.
Output:
$ cc pgm5.c
$ a.out
equal

3. What will be the output of the following C code on a 32-bit machine?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int x = 10000;
5.        double y = 56;
6.        int *p = &x;
7.        double *q = &y;
8.        printf("p and q are %d and %d", sizeof(p), sizeof(q));
9.        return 0;
10.        }
```

a) p and q are 4 and 4
b) p and q are 4 and 8

c) compiler error
d) p and q are 2 and 8
View Answer
Answer: a
Explanation: Size of any type of pointer is 4 on a 32-bit machine.
Output:
$ cc pgm6.c
$ a.out
p and q are 4 and 4

4. Which is correct with respect to the size of the data types?
a) char > int > float
b) int > char > float
c) char < int < double
d) double > char > int
View Answer
Answer: c
Explanation: char has less bytes than int and int has less bytes than double in any system

5. What will be the output of the following C code on a 64 bit machine?

```
1.    #include <stdio.h>
2.    union Sti
3.    {
4.        int nu;
5.        char m;
6.    };
7.    int main()
8.    {
9.        union Sti s;
10.            printf("%d", sizeof(s));
11.            return 0;
12.          }
```

a) 8
b) 5
c) 9
d) 4
View Answer
Answer: d
Explanation: Since the size of a union is the size of its maximum data type, here int is the largest data type. Hence the size of the union is 4.
Output:
$ cc pgm7.c
$ a.out
4

6. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          float x = 'a';
5.          printf("%f", x);
6.          return 0;
7.      }
```

a) a
b) run time error
c) a.0000000
d) 97.000000
View Answer
Answer: d
Explanation: Since the ASCII value of a is 97, the same is assigned to the float variable and printed.
Output:
$ cc pgm8.c
$ a.out
97.000000

7. Which of the data types has the size that is variable?
a) int
b) struct
c) float
d) double
View Answer
Answer: b
Explanation: Since the size of the structure depends on its fields, it has a variable size.

1. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      void foo(const int *);
3.      int main()
4.      {
5.          const int i = 10;
6.          printf("%d ", i);
7.          foo(&i);
8.          printf("%d", i);
9.
10.         }
11.         void foo(const int *i)
12.         {
13.             *i = 20;
14.         }
```

a) Compile time error
b) 10 20
c) Undefined value

d) 10

Answer: a

Explanation: Cannot change a const type value.

Output:

$ cc pgm1.c

pgm1.c: In function 'foo':

pgm1.c:13: error: assignment of read-only location '*i'

2. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          const int i = 10;
5.          int *ptr = &i;
6.          *ptr = 20;
7.          printf("%d\n", i);
8.          return 0;
9.      }
```

a) Compile time error
b) Compile time warning and printf displays 20
c) Undefined behaviour
d) 10

Answer: b

Explanation: Changing const variable through non-constant pointers invokes compiler warning.

Output:

$ cc pgm2.c

pgm2.c: In function 'main':

pgm2.c:5: warning: initialization discards qualifiers from pointer target type

$ a.out

20

3. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          j = 10;
5.          printf("%d\n", j++);
6.          return 0;
7.      }
```

a) 10
b) 11
c) Compile time error

d) 0

Answer: c

Explanation: Variable j is not defined.

Output:

$ cc pgm3.c

pgm3.c: In function 'main':

pgm3.c:4: error: 'j' undeclared (first use in this function)

pgm3.c:4: error: (Each undeclared identifier is reported only once

pgm3.c:4: error: for each function it appears in.)

4. Will the following C code compile without any error?

```
1.     #include <stdio.h>
2.     int main()
3.     {
4.         for (int k = 0; k < 10; k++);
5.             return 0;
6.     }
```

a) Yes

b) No

c) Depends on the C standard implemented by compilers

d) Error

Answer: c

Explanation: Compilers implementing C90 do not allow this, but compilers implementing C99 allow it.

Output:

$ cc pgm4.c

pgm4.c: In function 'main':

pgm4.c:4: error: 'for' loop initial declarations are only allowed in C99 mode

pgm4.c:4: note: use option -std=c99 or -std=gnu99 to compile your code

5. Will the following C code compile without any error?

```
1.     #include <stdio.h>
2.     int main()
3.     {
4.         int k;
5.         {
6.             int k;
7.             for (k = 0; k < 10; k++);
8.         }
9.     }
```

a) Yes

b) No

c) Depends on the compiler

d) Depends on the C standard implemented by compilers

View Answer

Answer: a

Explanation: There can be blocks inside the block. But within a block, variables have only block scope.

Output:

$ cc pgm5.c

6. Which of the following declaration is not supported by C?

a) String str;

b) char *str;

c) float str = 3e2;

d) Both String str; & float str = 3e2;

View Answer

Answer: a

Explanation: It is legal in Java, but not in C.

7. Which of the following format identifier can never be used for the variable var?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        char *var = "Advanced Training in C by Sanfoundry.com";
5.    }
```

a) %f

b) %d

c) %c

d) %s

View Answer

Answer: a

Explanation: %c can be used to print the indexed position.

%d can still be used to display its ASCII value.

%s is recommended.

%f cannot be used for the variable var.

1. Which of the following declaration is illegal?

a) char *str = "Best C programming classes by Sanfoundry";

b) char str[] = "Best C programming classes by Sanfoundry";

c) char str[20] = "Best C programming classes by Sanfoundry";

d) char[] str = "Best C programming classes by Sanfoundry";

View Answer

Answer: d

Explanation: char[] str is a declaration in Java, but not in C.

2. Which keyword is used to prevent any changes in the variable within a C program?

a) immutable
b) mutable
c) const
d) volatile
Answer: c
Explanation: const is a keyword constant in C program.

3. Which of the following is not a pointer declaration?
a) char a[10];
b) char a[] = {'1', '2', '3', '4'};
c) char *str;
d) char a;
Answer: d
Explanation: Array declarations are pointer declarations.

4. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int k = 4;
5.        float k = 4;
6.        printf("%d", k)
7.    }
```

a) Compile time error
b) 4
c) 4.0000000
d) 4.4
Answer: a
Explanation: Since the variable k is defined both as integer and as float, it results in an error.
Output:
$ cc pgm8.c
pgm8.c: In function 'main':
pgm8.c:5: error: conflicting types for 'k'
pgm8.c:4: note: previous definition of 'k' was here
pgm8.c:6: warning: format '%d' expects type 'int', but argument 2 has type 'double'
pgm8.c:7: error: expected ';' before '}' token

5. Which of the following statement is false?
a) A variable defined once can be defined again with different scope
b) A single variable cannot be defined with two different types in the same scope

c) A variable must be declared and defined at the same time
d) A variable refers to a location in memory
View Answer
Answer: c
Explanation: It is not an error if the variable is declared and not defined. For example – extern declarations.

6. A variable declared in a function can be used in main().
a) True
b) False
c) True if it is declared static
d) None of the mentioned
View Answer
Answer: b
Explanation: Since the scope of the variable declared within a function is restricted only within that function, so the above statement is false.

7. The name of the variable used in one function cannot be used in another function.
a) True
b) False
View Answer
Answer: b
Explanation: Since the scope of the variable declared within a function is restricted only within that function, the same name can be used to declare another variable in another function.

1. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = -3;
5.        int k = i % 2;
6.        printf("%d\n", k);
7.    }
```

a) Compile time error
b) -1
c) 1
d) Implementation defined
View Answer
Answer: b
Explanation: None.

2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 3;
5.        int l = i / -2;
6.        int k = i % -2;
7.        printf("%d %d\n", l, k);
8.        return 0;
9.    }
```

a) Compile time error

b) -1 1

c) 1 -1

d) Implementation defined

View Answer

Answer: b

Explanation: None.

3. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 5;
5.        i = i / 3;
6.        printf("%d\n", i);
7.        return 0;
8.    }
```

a) Implementation defined

b) 1

c) 3

d) Compile time error

View Answer

Answer: b

Explanation: None.

4. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.     int main()
3.     {
4.        int i = -5;
5.        i = i / 3;
6.        printf("%d\n", i);
7.        return 0;
8.     }
```

a) Implementation defined

b) -1

c) -3

d) Compile time error

View Answer

Answer: b
Explanation: None.

5. What will be the final value of x in the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 5 * 9 / 3 + 9;
5.    }
```

a) 3.75
b) Depends on compiler
c) 24
d) 3
View Answer

Answer: c
Explanation: None.

6. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 5.3 % 2;
5.        printf("Value of x is %d", x);
6.    }
```

a) Value of x is 2.3
b) Value of x is 1
c) Value of x is 0.3
d) Compile time error
View Answer

Answer: d
Explanation: None.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int y = 3;
5.        int x = 5 % 2 * 3 / 2;
6.        printf("Value of x is %d", x);
7.    }
```

a) Value of x is 1
b) Value of x is 2
c) Value of x is 3
d) Compile time error
View Answer

Answer: a
Explanation: None.

1. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int a = 3;
5.        int b = ++a + a++ + --a;
6.        printf("Value of b is %d", b);
7.    }
```

a) Value of x is 12
b) Value of x is 13
c) Value of x is 10
d) Undefined behaviour
View Answer
Answer: d
Explanation: None.

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2. What is the precedence of arithmetic operators (from highest to lowest)?
a) %, *, /, +, –
b) %, +, /, *, –
c) +, -, %, *, /
d) %, +, -, *, /
View Answer
Answer: a
Explanation: None.

3. Which of the following is not an arithmetic operation?
a) a * = 10;
b) a / = 10;
c) a ! = 10;
d) a % = 10;
View Answer
Answer: c
Explanation: None.

4. Which of the following data type will throw an error on modulus operation(%)?
a) char
b) short
c) int
d) float
View Answer
Answer: d
Explanation: None.

5. Which among the following are the fundamental arithmetic operators, i.e, performing the desired operation can be done using that operator only?
a) +, –
b) +, -, %
c) +, -, *, /
d) +, -, *, /, %
View Answer
Answer: a
Explanation: None.

6. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int a = 10;
5.        double b = 5.6;
6.        int c;
7.        c = a + b;
8.        printf("%d", c);
9.    }
```

a) 15
b) 16
c) 15.6
d) 10
View Answer
Answer: a
Explanation: None.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int a = 10, b = 5, c = 5;
5.        int d;
6.        d = a == (b + c);
7.        printf("%d", d);
8.    }
```

a) Syntax error
b) 1
c) 10
d) 5
View Answer
Answer: b
Explanation: None.

1. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          int x = 1, y = 0, z = 5;
5.          int a = x && y || z++;
6.          printf("%d", z);
7.      }
```

a) 6
b) 5
c) 0
d) Varies

View Answer

Answer: a
Explanation: None.

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2. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          int x = 1, y = 0, z = 5;
5.          int a = x && y && z++;
6.          printf("%d", z);
7.      }
```

a) 6
b) 5
c) 0
d) Varies

View Answer

Answer: b
Explanation: None.

3. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          int x = 1, y = 0, z = 3;
5.          x > y ? printf("%d", z) : return z;
6.      }
```

a) 3
b) 1
c) Compile time error
d) Run time error

View Answer

Answer: c
Explanation: None.

4. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 1, z = 3;
5.        int y = x << 3;
6.        printf(" %d\n", y);
7.    }
```

a) -2147483648
b) -1
c) Run time error
d) 8

View Answer

Answer: d
Explanation: None.

5. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 0, y = 2, z = 3;
5.        int a = x & y | z;
6.        printf("%d", a);
7.    }
```

a) 3
b) 0
c) 2
d) Run time error

View Answer

Answer: a
Explanation: None.

6. What will be the final value of j in the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 0, j = 0;
5.        if (i && (j = i + 10))
6.            //do something
7.            ;
8.    }
```

a) 0
b) 10
c) Depends on the compiler
d) Depends on language standard

View Answer

Answer: a
Explanation: None.

7. What will be the final value of j in the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 10, j = 0;
5.        if (i || (j = i + 10))
6.            //do something
7.            ;
8.    }
```

a) 0
b) 20
c) Compile time error
d) Depends on language standard
View Answer
Answer: a
Explanation: None.

8. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 1;
5.        if (i++ && (i == 1))
6.            printf("Yes\n");
7.        else
8.            printf("No\n");
9.    }
```

a) Yes
b) No
c) Depends on the compiler
d) Depends on the standard
View Answer
Answer: b
Explanation: None.

1. Are logical operator sequence points?
a) True
b) False
c) Depends on the compiler
d) Depends on the standard
View Answer
Answer: a
Explanation: None.

2. Do logical operators in the C language are evaluated with the short circuit?
a) True
b) False
c) Depends on the compiler
d) Depends on the standard
View Answer
Answer: a
Explanation: None.

3. What is the result of logical or relational expression in C?
a) True or False
b) 0 or 1
c) 0 if an expression is false and any positive number if an expression is true
d) None of the mentioned
View Answer
Answer: b
Explanation: None.

4. What will be the final value of d in the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int a = 10, b = 5, c = 5;
5.        int d;
6.        d = b + c == a;
7.        printf("%d", d);
8.    }
```

a) Syntax error
b) 1
c) 5
d) 10
View Answer
Answer: b
Explanation: None.

5. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int a = 10, b = 5, c = 3;
5.        b != !a;
6.        c = !!a;
7.        printf("%d\t%d", b, c);
8.    }
```

a) 5   1
b) 0   3
c) 5   3
d) 1   1
View Answer

Answer: a
Explanation: None.

6. Which among the following is NOT a logical or relational operator?
a) !=
b) ==
c) ||
d) =
View Answer

Answer: d
Explanation: None.

7. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          int a = 10;
5.          if (a == a--)
6.              printf("TRUE 1\t");
7.          a = 10;
8.          if (a == --a)
9.              printf("TRUE 2\t");
10.         }
```

a) TRUE 1
b) TRUE 2
c) TRUE 1   TRUE 2
d) Compiler Dependent
View Answer

Answer: d
Explanation: This is a sequence point problem and hence the result will be implementation dependent.

8. Relational operators cannot be used on _____
a) structure
b) long
c) strings
d) float
View Answer

Answer: a
Explanation: None.

1. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        float x = 0.1;
5.        if (x == 0.1)
6.            printf("Sanfoundry");
7.        else
8.            printf("Advanced C Classes");
9.    }
```

a) Advanced C Classes
b) Sanfoundry
c) Run time error
d) Compile time error
View Answer
Answer: a
Explanation: None.

2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        float x = 0.1;
5.        printf("%d, ", x);
6.        printf("%f", x);
7.    }
```

a) 0.100000, junk value
b) Junk value, 0.100000
c) 0, 0.100000
d) 0, 0.999999
View Answer
Answer: b
Explanation: None.

3. What will be the output of the following C code? (Initial values: x= 7, y = 8)

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        float x;
5.        int y;
6.        printf("enter two numbers \n", x);
7.        scanf("%f %f", &x, &y);
8.        printf("%f, %d", x, y);
9.    }
```

a) 7.000000, 7
b) Run time error
c) 7.000000, junk

d) Varies

Answer: c

Explanation: None.

4. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        double x = 123828749.66;
5.        int y = x;
6.        printf("%d\n", y);
7.        printf("%lf\n", y);
8.    }
```

a) 0, 0.0
b) 123828749, 123828749.66
c) 12382874, 12382874.0
d) 123828749, 0.000000

Answer: d

Explanation: None.

5. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 97;
5.        char y = x;
6.        printf("%c\n", y);
7.    }
```

a) a
b) b
c) 97
d) Run time error

Answer: a

Explanation: None.

6. When double is converted to float, then the value is?
a) Truncated
b) Rounded
c) Depends on the compiler
d) Depends on the standard

Answer: c

Explanation: None.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        unsigned int i = 23;
5.        signed char c = -23;
6.        if (i > c)
7.            printf("Yes\n");
8.        else if (i < c)
9.            printf("No\n");
10.       }
```

a) Yes
b) No
c) Depends on the compiler
d) Depends on the operating system
View Answer

Answer: b
Explanation: None.

8. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 23;
5.        char c = -23;
6.        if (i < c)
7.            printf("Yes\n");
8.        else
9.            printf("No\n");
10.       }
```

a) Yes
b) No
c) Depends on the compiler
d) Depends on the standard
View Answer

Answer: b
Explanation: None.

1. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 0;
5.        int x = i++, y = ++i;
6.        printf("%d % d\n", x, y);
7.        return 0;
8.    }
```

a) 0, 2
b) 0, 1
c) 1, 2
d) Undefined
View Answer

Answer: a

Explanation: None.

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2. What will be the output of the following C code?

```c
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 10;
5.        int *p = &i;
6.        printf("%d\n", *p++);
7.    }
```

a) 10
b) 11
c) Garbage value
d) Address of i
View Answer

Answer: a

Explanation: None.

3. What will be the output of the following C code?

```c
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 97;
5.        int y = sizeof(x++);
6.        printf("X is %d", x);
7.    }
```

a) X is 97
b) X is 98
c) X is 99
d) Run time error
View Answer

Answer: a

Explanation: None.

4. What will be the output of the following C code?

```c
1.    #include <stdio.h>
2.    void main()
3.    {
```

```
4.          int x = 4, y, z;
5.          y = --x;
6.          z = x--;
7.          printf("%d%d%d", x,  y, z);
8.      }
```

a) 3 2 3

b) 2 3 3

c) 3 2 2

d) 2 3 4

View Answer

Answer: b

Explanation: None.

5. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          int x = 4;
5.          int *p = &x;
6.          int *k = p++;
7.          int r = p - k;
8.          printf("%d", r);
9.      }
```

a) 4

b) 8

c) 1

d) Run time error

View Answer

Answer: c

Explanation: None.

6. What will be the output of the following C code?

```
1. #include <stdio.h>
2.      void main()
3.      {
4.          int a = 5, b = -7, c = 0, d;
5.          d = ++a && ++b || ++c;
6.          printf("\n%d%d%d%d", a,  b, c, d);
7.      }
```

a) 6 -6 0 0

b) 6 -5 0 1

c) -6 -6 0 1

d) 6 -6 0 1

View Answer

Answer: d

Explanation: None.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int a = -5;
5.        int k = (a++, ++a);
6.        printf("%d\n", k);
7.    }
```

a) -4
b) -5
c) 4
d) -3
View Answer
Answer: d
Explanation: None.

1. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int c = 2 ^ 3;
5.        printf("%d\n", c);
6.    }
```

a) 1
b) 8
c) 9
d) 0
View Answer
Answer: a
Explanation: None.

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2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        unsigned int a = 10;
5.        a = ~a;
6.        printf("%d\n", a);
7.    }
```

a) -9
b) -10
c) -11
d) 10
View Answer

Answer: c

Explanation: None.

3. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        if (7 & 8)
5.         printf("Honesty");
6.            if ((~7 & 0x000f) == 8)
7.                printf("is the best policy\n");
8.    }
```

a) Honesty is the best policy
b) Honesty
c) is the best policy
d) No output

View Answer

Answer: c

Explanation: None.

4. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int a = 2;
5.        if (a >> 1)
6.            printf("%d\n", a);
7.    }
```

a) 0
b) 1
c) 2
d) No Output

View Answer

Answer: c

Explanation: None.

5. Comment on the output of the following C code.

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i, n, a = 4;
5.        scanf("%d", &n);
6.        for (i = 0; i < n; i++)
7.            a = a * 2;
8.    }
```

a) Logical Shift left
b) No output

c) Arithmetic Shift right
d) Bitwise exclusive OR
View Answer
Answer: b
Explanation: None.

6. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 97;
5.        int y = sizeof(x++);
6.        printf("x is %d", x);
7.    }
```

a) x is 97
b) x is 98
c) x is 99
d) Run time error
View Answer
Answer: a
Explanation: None.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 4, y, z;
5.        y = --x;
6.        z = x--;
7.        printf("%d%d%d", x, y, z);
8.    }
```

a) 3 2 3
b) 2 2 3
c) 3 2 2
d) 2 3 3
View Answer
Answer: d
Explanation: None.

8. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 4;
5.        int *p = &x;
6.        int *k = p++;
7.        int r = p - k;
```

```
8.            printf("%d", r);
9.        }
```

a) 4
b) 8
c) 1
d) Run time error

View Answer

Answer: c
Explanation: None.

1. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          int x = 5;
5.          if (x < 1)
6.              printf("hello");
7.          if (x == 5)
8.              printf("hi");
9.          else
10.                 printf("no");
11.         }
```

a) hi
b) hello
c) no
d) error

View Answer

Answer: a
Explanation: None.

2. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int x;
3.      void main()
4.      {
5.          if (x)
6.              printf("hi");
7.          else
8.              printf("how are u");
9.      }
```

a) hi
b) how are you
c) compile time error
d) error

View Answer

Answer: b
Explanation: None.

3. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 5;
5.        if (true);
6.            printf("hello");
7.    }
```

a) It will display hello
b) It will throw an error
c) Nothing will be displayed
d) Compiler dependent
View Answer
Answer: b
Explanation: None.

4. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 0;
5.        if (x == 0)
6.            printf("hi");
7.        else
8.            printf("how are u");
9.            printf("hello");
10.        }
```

a) hi
b) how are you
c) hello
d) hihello
View Answer
Answer: d
Explanation: None.

5. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int x = 5;
5.        if (x < 1);
6.            printf("Hello");
7.
8.    }
```

a) Nothing
b) Run time error
c) Hello
d) Varies

Answer: c

Explanation: None.

6. What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input)

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          double ch;
5.          printf("enter a value between 1 to 2:");
6.          scanf("%lf", &ch);
7.          switch (ch)
8.          {
9.             case 1:
10.                    printf("1");
11.                    break;
12.                 case 2:
13.                    printf("2");
14.                    break;
15.             }
16.          }
```

a) Compile time error
b) 1
c) 2
d) Varies

Answer: a

Explanation: None.

7. What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input)

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          char *ch;
5.          printf("enter a value between 1 to 3:");
6.          scanf("%s", ch);
7.          switch (ch)
8.          {
9.             case "1":
10.                    printf("1");
11.                    break;
12.                 case "2":
13.                    printf("2");
14.                    break;
15.             }
```

```
16.                  }
```

a) 1

b) 2

c) Compile time error

d) No Compile time error

Answer: c

Explanation: None.

8. What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input)

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          int ch;
5.          printf("enter a value between 1 to 2:");
6.          scanf("%d", &ch);
7.          switch (ch)
8.          {
9.             case 1:
10.                    printf("1\n");
11.                 default:
12.                    printf("2\n");
13.             }
14.              }
```

a) 1

b) 2

c) 1 2

d) Run time error

Answer: c

Explanation: None.

9. What will be the output of the following C code? (Assuming that we have entered the value 2 in the standard input)

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          int ch;
5.          printf("enter a value between 1 to 2:");
6.          scanf("%d", &ch);
7.          switch (ch)
8.          {
9.             case 1:
10.                    printf("1\n");
11.                    break;
12.                    printf("Hi");
13.                 default:
14.                    printf("2\n");
15.              }
```

```
16.                 }
```

a) 1
b) Hi 2
c) Run time error
d) 2
View Answer
Answer: d
Explanation: None.

10. What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input)

```
1.      #include <stdio.h>
2.      void main()
3.      {
4.          int ch;
5.          printf("enter a value between 1 to 2:");
6.          scanf("%d", &ch);
7.          switch (ch, ch + 1)
8.          {
9.              case 1:
10.                     printf("1\n");
11.                     break;
12.                 case 2:
13.                     printf("2");
14.                     break;
15.             }
16.         }
```

a) 1
b) 2
c) 3
d) Run time error
View Answer
Answer: b
Explanation: None.

1. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          int x = 1;
5.          if (x > 0)
6.              printf("inside if\n");
7.          else if (x > 0)
8.              printf("inside elseif\n");
9.      }
```

a) inside if
b) inside elseif
c)

inside if

inside elseif

d) compile time error

View Answer

Answer: a

Explanation: None.

2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int x = 0;
5.        if (x++)
6.            printf("true\n");
7.        else if (x == 1)
8.            printf("false\n");
9.    }
```

a) true
b) false
c) compile time error
d) undefined behaviour

View Answer

Answer: b

Explanation: None.

3. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int x = 0;
5.        if (x == 1)
6.            if (x == 0)
7.                printf("inside if\n");
8.            else
9.                printf("inside else if\n");
10.           else
11.               printf("inside else\n");
12.       }
```

a) inside if
b) inside else if
c) inside else
d) compile time error

View Answer

Answer: c

Explanation: None.

4. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int x = 0;
5.        if (x == 0)
6.            printf("true, ");
7.        else if (x = 10)
8.            printf("false, ");
9.        printf("%d\n", x);
10.    }
```

a) false, 0
b) true, 0
c) true, 10
d) compile time error

View Answer

Answer: b

Explanation: None.

5. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int x = 0;
5.        if (x == 1)
6.            if (x >= 0)
7.                printf("true\n");
8.            else
9.                printf("false\n");
10.    }
```

a) true
b) false
c) Depends on the compiler
d) No print statement

View Answer

Answer: d

Explanation: None.

6. The C statement ""if (a == 1 || b == 2) {}"" can be re-written as _____

a)

```
if (a == 1)
if (b == 2){}
```

b)

```
    if (a == 1){}
    if (b == 2){}
```

c)

```
    if (a == 1){}
    else if (b == 2){}
```

d) none of the mentioned
View Answer
Answer: d
Explanation: None.

7. Which of the following is an invalid if-else statement?
a) if (if (a == 1)){}
b) if (func1 (a)){}
c) if (a){}
d) if ((char) a){}
View Answer
Answer: a
Explanation: None.

8. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int a = 1;
5.        if (a--)
6.            printf("True");
7.            if (a++)
8.                printf("False");
9.    }
```

a) True
b) False
c) True False
d) No Output
View Answer
Answer: a
Explanation: None.

9. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int a = 1;
5.        if (a)
6.            printf("All is Well ");
7.            printf("I am Well\n");
8.        else
```

```
9.              printf("I am not a River\n");
10.          }
```

a) Output will be All is Well I am Well

b) Output will be I am Well I am not a River

c) Output will be I am Well

d) Compile time errors during compilation

Answer: d

Explanation: None.

10. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        if (printf("%d", printf(")))
5.            printf("We are Happy");
6.        else if (printf("1"))
7.            printf("We are Sad");
8.    }
```

a) 0We are Happy

b) 1We are Happy

c) 1We are Sad

d) compile time error

Answer: d

Explanation: None.

1. What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input)

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        double ch;
5.        printf("enter a value between 1 to 2:");
6.        scanf("%lf", &ch);
7.        switch (ch)
8.        {
9.           case 1:
10.                   printf("1");
11.               break;
12.             case 2:
13.                   printf("2");
14.               break;
15.          }
16.       }
```

a) Compile time error

b) 1

c) 2

d) Varies

Answer: a

Explanation: None.

2. What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input)

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        char *ch;
5.        printf("enter a value between 1 to 3:");
6.        scanf("%s", ch);
7.        switch (ch)
8.        {
9.            case "1":
10.                   printf("1");
11.                   break;
12.                 case "2":
13.                   printf("2");
14.                   break;
15.            }
16.        }
```

a) 1

b) Compile time error

c) 2

d) Run time error

Answer: b

Explanation: None.

3. What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input)

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int ch;
5.        printf("enter a value between 1 to 2:");
6.        scanf("%d", &ch);
7.        switch (ch)
8.        {
9.            case 1:
10.                   printf("1\n");
11.                 default:
12.                   printf("2\n");
13.            }
14.        }
```

a) 1

b) 2

c) 1 2

d) Run time error

Answer: c

Explanation: None.

4. What will be the output of the following C code? (Assuming that we have entered the value 2 in the standard input)

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int ch;
5.        printf("enter a value between 1 to 2:");
6.        scanf("%d", &ch);
7.        switch (ch)
8.        {
9.           case 1:
10.                   printf("1\n");
11.                   break;
12.                   printf("hi");
13.              default:
14.                   printf("2\n");
15.            }
16.        }
```

a) 1

b) hi 2

c) Run time error

d) 2

Answer: d

Explanation: None.

5. What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input)

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int ch;
5.        printf("enter a value between 1 to 2:");
6.        scanf("%d", &ch);
7.        switch (ch, ch + 1)
8.        {
9.           case 1:
10.                   printf("1\n");
11.                   break;
12.              case 2:
13.                   printf("2");
14.                   break;
15.            }
16.        }
```

a) 1
b) 2
c) 3
d) Run time error
View Answer
Answer: b
Explanation: None.

6. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int a = 1, b = 1;
5.        switch (a)
6.        {
7.            case a*b:
8.                printf("yes ");
9.            case a-b:
10.                   printf("no\n");
11.               break;
12.           }
13.         }
```

a) yes
b) no
c) Compile time error
d) yes no
View Answer
Answer: c
Explanation: None.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int x = 97;
5.        switch (x)
6.        {
7.            case 'a':
8.                printf("yes ");
9.            break;
10.               case 97:
11.                   printf("no\n");
12.               break;
13.           }
14.         }
```

a) yes
b) yes no
c) Duplicate case value error

d) Character case value error
Answer: c
Explanation: None.

8. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          float f = 1;
5.          switch (f)
6.          {
7.              case 1.0:
8.                  printf("yes\n");
9.                  break;
10.                 default:
11.                     printf("default\n");
12.              }
13.          }
```

a) yes
b) yes default
c) Undefined behaviour
d) Compile time error
Answer: d
Explanation: None.

1. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      const int a = 1,  b = 2;
3.      int main()
4.      {
5.          int x = 1;
6.          switch (x)
7.          {
8.              case a:
9.                  printf("yes ");
10.                 case b:
11.                     printf("no\n");
12.                     break;
13.              }
14.          }
```

a) yes no
b) yes
c) no
d) Compile time error
Answer: d
Explanation: None.

2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    #define max(a)  a
3.    int main()
4.    {
5.        int x = 1;
6.        switch (x)
7.        {
8.          case max(2):
9.            printf("yes\n");
10.               case max(1):
11.                   printf("no\n");
12.                   break;
13.            }
14.          }
```

a) yes no
b) yes
c) no
d) Compile time error
View Answer
Answer: c
Explanation: None.

3. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        switch (printf("Do"))
5.        {
6.          case 1:
7.            printf("First\n");
8.            break;
9.          case 2:
10.                   printf("Second\n");
11.                   break;
12.               default:
13.                   printf("Default\n");
14.                   break;
15.            }
16.          }
```

a) Do
b) DoFirst
c) DoSecond
d) DoDefault
View Answer
Answer: c
Explanation: None.

4. Comment on the output of the following C code.

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          int a = 1;
5.          switch (a)
6.          case 1:
7.              printf("%d", a);
8.          case 2:
9.              printf("%d", a);
10.             case 3:
11.                 printf("%d", a);
12.             default:
13.                 printf("%d", a);
14.          }
```

a) No error, output is 1111
b) No error, output is 1
c) Compile time error, no break statements
d) Compile time error, case label outside switch statement
View Answer

Answer: d
Explanation: None.

5. Which datatype can accept the switch statement?
a) int
b) char
c) long
d) all of the mentioned
View Answer

Answer: d
Explanation: None.

6. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          int a = 1;
5.          switch (a)
6.          {
7.              case a:
8.                  printf("Case A ");
9.              default:
10.                     printf("Default");
11.              }
12.          }
```

a) Output: Case A
b) Output: Default
c) Output: Case A Default
d) Compile time error
View Answer

Answer: d
Explanation: None.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    switch (ch)
3.    {
4.        case 'a':
5.        case 'A':
6.            printf("true");
7.    }
```

a) if (ch == 'a' && ch == 'A') printf("true");
b)

if (ch == 'a')

if (ch == 'a') printf("true");

c) if (ch == 'a' || ch == 'A') printf("true");
d) none of the mentioned
View Answer
Answer: c
Explanation: None.

1. The C code 'for(;;)' represents an infinite loop. It can be terminated by _____
a) break
b) exit(0)
c) abort()
d) terminate
View Answer
Answer: a
Explanation: None.

2. What will be the correct syntax for running two variable for loop simultaneously?
a)

```
for (i = 0; i < n; i++)
for (j = 0; j < n; j += 5)
```

b)

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```
for (i = 0, j = 0; i < n, j < n; i++, j += 5)
```

c)

```
for (i = 0; i < n;i++){}
```

```
    for (j = 0; j < n;j += 5){}
```
d) none of the mentioned

Answer: b
Explanation: None.

3. Which for loop has range of similar indexes of 'i' used in for (i = 0;i < n; i++)?
a) for (i = n; i>0; i–)
b) for (i = n; i >= 0; i–)
c) for (i = n-1; i>0; i–)
d) for (i = n-1; i>-1; i–)

Answer: d
Explanation: None.

4. Which of the following cannot be used as LHS of the expression in for (exp1;exp2; exp3)?
a) variable
b) function
c) typedef
d) macros

Answer: d
Explanation: None.

5. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        short i;
5.        for (i = 1; i >= 0; i++)
6.            printf("%d\n", i);
7.
8.    }
```

a) The control won't fall into the for loop
b) Numbers will be displayed until the signed limit of short and throw a runtime error
c) Numbers will be displayed until the signed limit of short and program will successfully terminate
d) This program will get into an infinite loop and keep printing numbers with no errors

Answer: c
Explanation: None.

6. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int k = 0;
5.        for (k)
6.            printf("Hello");
7.    }
```

a) Compile time error
b) hello
c) Nothing
d) Varies

View Answer

Answer: a
Explanation: None.

7. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int k = 0;
5.        for (k < 3; k++)
6.        printf("Hello");
7.    }
```

a) Compile time error
b) Hello is printed thrice
c) Nothing
d) Varies

View Answer

Answer: a
Explanation: None.

8. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        double k = 0;
5.        for (k = 0.0; k < 3.0; k++)
6.            printf("Hello");
7.    }
```

a) Run time error
b) Hello is printed thrice
c) Hello is printed twice
d) Hello is printed infinitely

View Answer

Answer: b
Explanation: None.

1. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        double k = 0;
5.        for (k = 0.0; k < 3.0; k++);
6.            printf("%lf", k);
7.    }
```

a) 2.000000
b) 4.000000
c) 3.000000
d) Run time error
View Answer
Answer: c
Explanation: None.

2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int k;
5.        for (k = -3; k < -5; k++)
6.            printf("Hello");
7.    }
```

a) Hello
b) Infinite hello
c) Run time error
d) Nothing
View Answer
Answer: d
Explanation: None.

3. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 0;
5.        for (; ; ;)
6.            printf("In for loop\n");
7.            printf("After loop\n");
8.    }
```

a) Compile time error
b) Infinite loop
c) After loop

d) Undefined behaviour

Answer: a

Explanation: None.

4. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 0;
5.        for (i++; i == 1; i = 2)
6.            printf("In for loop ");
7.            printf("After loop\n");
8.    }
```

a) In for loop after loop
b) After loop
c) Compile time error
d) Undefined behaviour

Answer: a

Explanation: None.

5. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 0;
5.        for (foo(); i == 1; i = 2)
6.            printf("In for loop\n");
7.            printf("After loop\n");
8.    }
9.    int foo()
10.        {
11.            return 1;
12.        }
```

a) After loop
b) In for loop after loop
c) Compile time error
d) Infinite loop

Answer: a

Explanation: None.

6. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
```

```
4.          int *p = NULL;
5.          for (foo(); p; p = 0)
6.              printf("In for loop\n");
7.              printf("After loop\n");
8.      }
```

a) In for loop after loop
b) Compile time error
c) Infinite loop
d) Depends on the value of NULL
View Answer

Answer: b
Explanation: None.

7. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          for (int i = 0;i < 1; i++)
5.              printf("In for loop\n");
6.      }
```

a) Compile time error
b) In for loop
c) Depends on the standard compiler implements
d) Depends on the compiler
View Answer

Answer: c
Explanation: None.

1. What will be the output of the following C code?

```
1.      #include <stdio.h>
2.      int main()
3.      {
4.          while ()
5.              printf("In while loop ");
6.          printf("After loop\n");
7.      }
```

a) In while loop after loop
b) After loop
c) Compile time error
d) Infinite loop
View Answer

Answer: c
Explanation: None.

2. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        do
5.            printf("In while loop ");
6.        while (0);
7.            printf("After loop\n");
8.    }
```

a) In while loop
b)

  In while loop

  after loop

c) After loop
d) Infinite loop
View Answer
Answer: b
Explanation: None.

3. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 0;
5.        do {
6.            i++;
7.            printf("In while loop\n");
8.        } while (i < 3);
9.    }
```

a)

  In while loop

  In while loop

  In while loop

b)

  In while loop

  In while loop

c) Depends on the compiler
d) Compile time error
View Answer
Answer: a
Explanation: None.

4. How many times i value is checked in the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 0;
5.        do {
6.            i++;
7.             printf("in while loop\n");
8.        } while (i < 3);
9.    }
```

a) 2
b) 3
c) 4
d) 1
View Answer
Answer: b
Explanation: None.

5. How many times i value is checked in the following C code?

```
1.    #include <stdio.h>
2.    int main()
3.    {
4.        int i = 0;
5.        while (i < 3)
6.            i++;
7.        printf("In while loop\n");
8.    }
```

a) 2
b) 3
c) 4
d) 1
View Answer
Answer: c
Explanation: None.

6. What will be the output of the following C code?

```
1.    #include <stdio.h>
2.    void main()
3.    {
4.        int i = 2;
5.        do
```

```
6.         {
7.              printf("Hi");
8.         } while (i < 2)
9.     }
```

a) Compile time error
b) Hi Hi
c) Hi
d) Varies
View Answer
Answer: a
Explanation: None.

7. What will be the output of the following C code?

```
1.     #include <stdio.h>
2.     void main()
3.     {
4.         int i = 0;
5.         while (++i)
6.         {
7.              printf("H");
8.         }
9.     }
```

a) H
b) H is printed infinite times
c) Compile time error
d) Varies
View Answer
Answer: b
Explanation: None.

8. What will be the output of the following C code?

```
1.     #include <stdio.h>
2.     void main()
3.     {
4.         int i = 0;
5.         do
6.         {
7.              printf("Hello");
8.         } while (i != 0);
9.     }
```

a) Nothing
b) H is printed infinite times
c) Hello
d) Run time error
View Answer
Answer: c
Explanation: None.

9. Which of the following is the correct syntax to send an array as a parameter to function?
a) func(&array);
b) func(#array);
c) func(*array);
d) func(array[size]);
View Answer
Answer: a
Explanation: None.

_____ is a picture in which the flows of computational paths are depicted.

(A) Algorithm

(B) Program

(C) Code

(D) Flow chart

View Answer

Ans: D

Flow chart

Question: 2

Among unary operation which operator represents increment?

(A) --

(B) ++

(C) -

(D) !

View Answer

Ans: B

++

Question: 3

The function scanf is used to ___

(A) To take logical decisions

(B) Input a set of values

(C) Print a set of values

(D) Do mathematical manipulations

View Answer

Ans: B

Input a set of values

Question: 4

If the function returns no value then it is called ___

(A) Data type function

(B) Calling function

(C) Main function

(D) Void function

View Answer

Ans:D

Void function

Question: 5

A function _____

(A) May or may not need input data

(B) May or may not return a value

(C) Both a and b

(D) None of these

View Answer

Ans: C

Both a and b

1. Is Python case sensitive when dealing with identifiers?
a) yes
b) no
c) machine dependent
d) none of the mentioned
View Answer

Answer: a
Explanation: Case is always significant.
2. What is the maximum possible length of an identifier?
a) 31 characters
b) 63 characters
c) 79 characters
d) none of the mentioned
View Answer

Answer: d
Explanation: Identifiers can be of any length.
3. Which of the following is invalid?
a) _a = 1
b) __a = 1
c) __str__ = 1
d) none of the mentioned
View Answer

Answer: d
Explanation: All the statements will execute successfully but at the cost of reduced readability.
advertisement
4. Which of the following is an invalid variable?
a) my_string_1
b) 1st_string
c) foo
d) _
View Answer

Answer: b
Explanation: Variable names should not start with a number.
5. Why are local variable names beginning with an underscore discouraged?
a) they are used to indicate a private variables of a class
b) they confuse the interpreter
c) they are used to indicate global variables
d) they slow down execution
View Answer

Answer: a
Explanation: As Python has no concept of private variables, leading underscores are used to indicate variables that must not be accessed from outside the class.
6. Which of the following is not a keyword?
a) eval

b) assert
c) nonlocal
d) pass
View Answer

Answer: a

Explanation: eval can be used as a variable.

7. All keywords in Python are in _____
a) lower case
b) UPPER CASE
c) Capitalized
d) None of the mentioned
View Answer

Answer: d

Explanation: True, False and None are capitalized while the others are in lower case.

8. Which of the following is true for variable names in Python?
a) unlimited length
b) all private members must have leading and trailing underscores
c) underscore and ampersand are the only two special characters allowed
d) none of the mentioned
View Answer

Answer: a

Explanation: Variable names can be of any length.

9. Which of the following is an invalid statement?
a) abc = 1,000,000
b) a b c = 1000 2000 3000
c) a,b,c = 1000, 2000, 3000
d) a_b_c = 1,000,000
View Answer

Answer: b

Explanation: Spaces are not allowed in variable names.

10. Which of the following cannot be a variable?
a) __init__
b) in
c) it
d) on
View Answer

Answer: b

Explanation: in is a keyword

1. Which is the correct operator for power(x^y)?
a) X^y
b) X**y
c) X^^y
d) None of the mentioned
View Answer

Answer: b

Explanation: In python, power operator is x**y i.e. 2**3=8.

2. Which one of these is floor division?

a) /

b) //

c) %

d) None of the mentioned

View Answer

Answer: b

Explanation: When both of the operands are integer then python chops out the fraction part and gives you the round off value, to get the accurate answer use floor division. This is floor division. For ex, 5/2 = 2.5 but both of the operands are integer so answer of this expression in python is 2. To get the 2.5 answer, use floor division.

3. What is the order of precedence in python?

i) Parentheses

ii) Exponential

iii) Multiplication

iv) Division

v) Addition

vi) Subtraction

a) i,ii,iii,iv,v,vi

b) ii,i,iii,iv,v,vi

c) ii,i,iv,iii,v,vi

d) i,ii,iii,iv,vi,v

View Answer

Answer: a

Explanation: For order of precedence, just remember this PEMDAS (similar to BODMAS).

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4. What is the answer to this expression, 22 % 3 is?

a) 7

b) 1

c) 0

d) 5

View Answer

Answer: b

Explanation: Modulus operator gives the remainder. So, 22%3 gives the remainder, that is, 1.

5. Mathematical operations can be performed on a string.

a) True

b) False

View Answer

Answer: b

Explanation: You can't perform mathematical operation on string even if the string is in the form: '1234…'.

6. Operators with the same precedence are evaluated in which manner?
a) Left to Right
b) Right to Left
c) Can't say
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

7. What is the output of this expression, 3*1**3?
a) 27
b) 9
c) 3
d) 1
View Answer

Answer: c
Explanation: First this expression will solve 1**3 because exponential has higher precedence than multiplication, so 1**3 = 1 and 3*1 = 3. Final answer is 3.

8. Which one of the following has the same precedence level?
a) Addition and Subtraction
b) Multiplication, Division and Addition
c) Multiplication, Division, Addition and Subtraction
d) Addition and Multiplication
View Answer

Answer: a
Explanation: "Addition and Subtraction" are at the same precedence level. Similarly, "Multiplication and Division" are at the same precedence level. However, Multiplication and Division operators are at a higher precedence level than Addition and Subtraction operators.

9. The expression Int(x) implies that the variable x is converted to integer.
a) True
b) False
View Answer

Answer: a
Explanation: None.

10. Which one of the following has the highest precedence in the expression?
a) Exponential
b) Addition
c) Multiplication
d) Parentheses
View Answer

Answer: d
Explanation: Just remember: PEMDAS, that is, Parenthesis, Exponentiation, Division, Multiplication, Addition, Subtraction. Note that the precedence order of Division and Multiplication is the same. Likewise, the order of Addition and Subtraction is also the same

1. Which of these in not a core data type?
a) Lists
b) Dictionary
c) Tuples
d) Class
View Answer

Answer: d

Explanation: Class is a user defined data type.

2. Given a function that does not return any value, What value is thrown by default when executed in shell.
a) int
b) bool
c) void
d) None
View Answer

Answer: d

Explanation: Python shell throws a NoneType object back.

3. What will be the output of the following Python code?
advertisement

1. >>>str="hello"
2. >>>str[:2]
3. >>>

a) he
b) lo
c) olleh
d) hello
View Answer

Answer: a

Explanation: We are printing only the 1st two bytes of string and hence the answer is "he".

4. Which of the following will run without errors?
a) round(45.8)
b) round(6352.898,2,5)
c) round()
d) round(7463.123,2,1)
View Answer

Answer: a

Explanation: Execute help(round) in the shell to get details of the parameters that are passed into the round function.

5. What is the return type of function id?
a) int
b) float
c) bool
d) dict
View Answer

Answer: a

Explanation: Execute help(id) to find out details in python shell.id returns a integer value that is unique.

6. In python we do not specify types, it is directly interpreted by the compiler, so consider the following operation to be performed.

```
1.  >>>x = 13 ? 2
```

objective is to make sure x has a integer value, select all that apply (python 3.xx)

a) x = 13 // 2
b) x = int(13 / 2)
c) x = 13 % 2
d) All of the mentioned

View Answer

Answer: d

Explanation: // is integer operation in python 3.0 and int(..) is a type cast operator.

7. What error occurs when you execute the following Python code snippet?

apple = mango

a) SyntaxError
b) NameError
c) ValueError
d) TypeError

View Answer

Answer: b

Explanation: Mango is not defined hence name error.

8. What will be the output of the following Python code snippet?

```
1.  def example(a):
2.      a = a + '2'
3.       a = a*2
4.      return a
5.  >>>example("hello")
```

a) indentation Error
b) cannot perform mathematical operation on strings
c) hello2
d) hello2hello2

View Answer

Answer: a

Explanation: Python codes have to be indented properly.

9. What data type is the object below?

L = [1, 23, 'hello', 1]

a) list
b) dictionary
c) array
d) tuple

View Answer

Answer: a

Explanation: List data type can store any values within it.

10. In order to store values in terms of key and value we use what core data type.

a) list

b) tuple

c) class

d) dictionary

View Answer

Answer: d

Explanation: Dictionary stores values in terms of keys and values.

11. Which of the following results in a SyntaxError?

a) '"Once upon a time…", she said.'

b) "He said, 'Yes!'"

c) '3\'

d) "'That's okay"'

View Answer

Answer: c

Explanation: Carefully look at the colons.

12. The following is displayed by a print function call. Select all of the function calls that result in this output.

1. tom
2. dick
3. harry

a)

print('''tom

\ndick

\nharry''')

b) print("'tomdickharry"')

c) print('tom\ndick\nharry')

d)

print('tom

dick

harry')

View Answer

Answer: c

Explanation: The \n adds a new line.

13. What is the average value of the following Python code snippet?

1. >>>grade1 = 80
2. >>>grade2 = 90
3. >>>average = (grade1 + grade2) / 2

a) 85.0

b) 85.1

c) 95.0
d) 95.1
View Answer
Answer: a
Explanation: Cause a decimal value of 0 to appear as output.
14. Select all options that print.
hello-how-are-you
a) print('hello', 'how', 'are', 'you')
b) print('hello', 'how', 'are', 'you' + '-' * 4)
c) print('hello-' + 'how-are-you')
d) print('hello' + '-' + 'how' + '-' + 'are' + 'you')
View Answer
Answer: c
Explanation: Execute in the shell.
15. What is the return value of trunc()?
a) int
b) bool
c) float
d) None
View Answer
Answer: a
Explanation: Execute help(math.trunc) to get details
1. What is the output of print 0.1 + 0.2 == 0.3?
a) True
b) False
c) Machine dependent
d) Error
View Answer
Answer: b
Explanation: Neither of 0.1, 0.2 and 0.3 can be represented accurately in binary. The round off errors from 0.1 and 0.2 accumulate and hence there is a difference of 5.5511e-17 between (0.1 + 0.2) and 0.3.
2. Which of the following is not a complex number?
a) k = 2 + 3j
b) k = complex(2, 3)
c) k = 2 + 3l
d) k = 2 + 3J
View Answer
Answer: c
Explanation: l (or L) stands for long.
3. What is the type of inf?
a) Boolean
b) Integer
c) Float

d) Complex

View Answer

Answer: c

Explanation: Infinity is a special case of floating point numbers. It can be obtained by float('inf').

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4. What does ~4 evaluate to?

a) -5

b) -4

c) -3

d) +3

View Answer

Answer: a

Explanation: ~x is equivalent to -(x+1).

5. What does ~~~~~~5 evaluate to?

a) +5

b) -11

c) +11

d) -5

View Answer

Answer: a

Explanation: ~x is equivalent to -(x+1).

~~x = − (-(x+1) + 1) = (x+1) − 1 = x

~~x is equivalent to x

Extrapolating further ~~~~~~x would be same as x in the final result.

In the question, x value is given as 5 and "~" is repeated 6 times. So, the correct answer for "~~~~~~5" is 5.

6. Which of the following is incorrect?

a) x = 0b101

b) x = 0x4f5

c) x = 19023

d) x = 03964

View Answer

Answer: d

Explanation: Numbers starting with a 0 are octal numbers but 9 isn't allowed in octal numbers.

7. What is the result of cmp(3, 1)?

a) 1

b) 0

c) True

d) False

View Answer

Answer: a

Explanation: cmp(x, y) returns 1 if x > y, 0 if x == y and -1 if x < y.

8. Which of the following is incorrect?

a) float('inf')

b) float('nan')
c) float('56'+'78')
d) float('12+34')
View Answer

Answer: d
Explanation: '+' cannot be converted to a float.
9. What is the result of round(0.5) – round(-0.5)?
a) 1.0
b) 2.0
c) 0.0
d) Value depends on Python version
View Answer

Answer: d
Explanation: The behavior of the **round()** function is different in Python 2 and Python 3. In Python 2, it rounds off numbers away from 0 when the number to be rounded off is exactly halfway through. round(0.5) is 1 and round(-0.5) is -1 whereas in Python 3, it rounds off numbers towards nearest even number when the number to be rounded off is exactly halfway through. See the below output.
Here's the runtime output for Python version 2.7 interpreter.
$ python
Python 2.7.17 (default, Nov 7 2019, 10:07:09)
>>> round(0.5)
1.0
>>> round(-0.5)
-1.0
>>>
In the above output, you can see that the round() functions on 0.5 and -0.5 are moving away from 0 and hence "**round(0.5) – (round(-0.5)) = 1 – (-1) = 2**"
Here's the runtime output for Python version 3.6 interpreter.
$ python3
Python 3.6.8 (default, Oct 7 2019, 12:59:55)
>>> round(0.5)
0
>>> round(-0.5)
0
>>> round(2.5)
2
>>> round(3.5)
4
>>>
In the above output, you can see that the round() functions on 0.5 and -0.5 are moving towards 0 and hence "**round(0.5) – (round(-0.5)) = 0 – 0 = 0**". Also note that the round(2.5) is 2 (which is an even number) whereas round(3.5) is 4 (which is an even number).

10. What does 3 ^ 4 evaluate to?
a) 81
b) 12
c) 0.75
d) 7
View Answer

Answer: d

Explanation: ^ is the Binary XOR operator.

1. The value of the expressions 4/(3*(2-1)) and 4/3*(2-1) is the same.
a) True
b) False
View Answer

Answer: a

Explanation: Although the presence of parenthesis does affect the order of precedence, in the case shown above, it is not making a difference. The result of both of these expressions is 1.333333333. Hence the statement is true.

2. What will be the value of the following Python expression?

4 + 3 % 5

a) 4
b) 7
c) 2
d) 0
View Answer

Answer: b

Explanation: The order of precedence is: %, +. Hence the expression above, on simplification results in 4 + 3 = 7. Hence the result is 7.

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3. Evaluate the expression given below if A = 16 and B = 15.

A % B // A

a) 0.0
b) 0
c) 1.0
d) 1
View Answer

Answer: b

Explanation: The above expression is evaluated as: 16%15//16, which is equal to 1//16, which results in 0.

4. Which of the following operators has its associativity from right to left?
a) +
b) //
c) %
d) **
View Answer

Answer: d

Explanation: All of the operators shown above have associativity from left to right, except exponentiation operator (**) which has its associativity from right to left.

5. What will be the value of x in the following Python expression?

x = int(43.55+2/2)

a) 43
b) 44
c) 22
d) 23

View Answer

Answer: b

Explanation: The expression shown above is an example of explicit conversion. It is evaluated as int(43.55+1) = int(44.55) = 44. Hence the result of this expression is 44.

6. What is the value of the following expression?

2+4.00, 2**4.0

a) (6.0, 16.0)
b) (6.00, 16.00)
c) (6, 16)
d) (6.00, 16.0)

View Answer

Answer: a

Explanation: The result of the expression shown above is (6.0, 16.0). This is because the result is automatically rounded off to one decimal place.

7. Which of the following is the truncation division operator?

a) /
b) %
c) //
d) |

View Answer

Answer: c

Explanation: // is the operator for truncation division. It is called so because it returns only the integer part of the quotient, truncating the decimal part. For example: 20//3 = 6.

8. What are the values of the following Python expressions?

 2**(3**2)
 (2**3)**2
 2**3**2

a) 64, 512, 64
b) 64, 64, 64
c) 512, 512, 512
d) 512, 64, 512

View Answer

Answer: d

Explanation: Expression 1 is evaluated as: 2**9, which is equal to 512. Expression 2 is evaluated

as 8**2, which is equal to 64. The last expression is evaluated as 2**(3**2). This is because the associativity of ** operator is from right to left. Hence the result of the third expression is 512.

9. What is the value of the following expression?

8/4/2, 8/(4/2)

a) (1.0, 4.0)
b) (1.0, 1.0)
c) (4.0. 1.0)
d) (4.0, 4.0)

View Answer

Answer: a

Explanation: The above expressions are evaluated as: 2/2, 8/2, which is equal to (1.0, 4.0).

10. What is the value of the following expression?

float(22//3+3/3)

a) 8
b) 8.0
c) 8.3
d) 8.33

View Answer

Answer: b

Explanation: The expression shown above is evaluated as: float(7+1) = float(8) = 8.0. Hence the result of this expression is 8.0

1. What will be the output of the following Python expression?

print(4.00/(2.0+2.0))

a) Error
b) 1.0
c) 1.00
d) 1

View Answer

Answer: b

Explanation: The result of the expression shown above is 1.0 because print rounds off digits.

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2. What will be the value of X in the following Python expression?

X = 2+9*((3*12)-8)/10

a) 30.0
b) 30.8
c) 28.4
d) 27.2

View Answer

Answer: d

Explanation: The expression shown above is evaluated as: 2+9*(36-8)/10, which simplifies to give 2+9*(2.8), which is equal to 2+25.2 = 27.2. Hence the result of this expression is 27.2.

3. Which of the following expressions involves coercion when evaluated in Python?

a) 4.7 – 1.5
b) 7.9 * 6.3

c) 1.7 % 2
d) 3.4 + 4.6
View Answer
Answer: c
Explanation: Coercion is the implicit (automatic) conversion of operands to a common type. Coercion is automatically performed on mixed-type expressions. The expression 1.7 % 2 is evaluated as 1.7 % 2.0 (that is, automatic conversion of int to float).
4. What will be the output of the following Python expression?
24//6%3, 24//4//2
a) (1,3)
b) (0,3)
c) (1,0)
d) (3,1)
View Answer
Answer: a
Explanation: The expressions are evaluated as: 4%3 and 6//2 respectively. This results in the answer (1,3). This is because the associativity of both of the expressions shown above is left to right.
5. Which among the following list of operators has the highest precedence?
 +, -, **, %, /, <<, >>, |
a) <<, >>
b) **
c) |
d) %
View Answer
Answer: b
Explanation: The highest precedence is that of the exponentiation operator, that is of **.
6. What will be the value of the following Python expression?
float(4+int(2.39)%2)
a) 5.0
b) 5
c) 4.0
d) 4
View Answer
Answer: c
Explanation: The above expression is an example of explicit conversion. It is evaluated as: float(4+int(2.39)%2) = float(4+2%2) = float(4+0) = 4.0. Hence the result of this expression is 4.0.
7. Which of the following expressions is an example of type conversion?
a) 4.0 + float(3)
b) 5.3 + 6.3
c) 5.0 + 3
d) 3 + 7
View Answer

Answer: a

Explanation: Type conversion is nothing but explicit conversion of operands to a specific type. Options 5.3 + 6.3 and 5.0 + 3 are examples of implicit conversion whereas option 4.0 + float(3) is an example of explicit conversion or type conversion.

8. Which of the following expressions results in an error?

a) float('10')
b) int('10')
c) float('10.8')
d) int('10.8')

View Answer

Answer: d

Explanation: All of the above examples show explicit conversion. However the expression int('10.8') results in an error.

9. What will be the value of the following Python expression?

4+2**5//10

a) 3
b) 7
c) 77
d) 0

View Answer

Answer: b

Explanation: The order of precedence is: **, //, +. The expression 4+2**5//10 is evaluated as 4+32//10, which is equal to 4+3 = 7. Hence the result of the expression shown above is 7.

10. The expression 2**2**3 is evaluates as: (2**2)**3.

a) True
b) False

View Answer

Answer: b

Explanation: The value of the expression (2**2)**3 = 4**3 = 64. When the expression 2**2**3 is evaluated in python, we get the result as 256, because this expression is evaluated as 2**(2**3). This is because the associativity of exponentiation operator (**) is from right to left and not from left to right.

1. What will be the output of the following Python code snippet if x=1?

x<<2

a) 8
b) 1
c) 2
d) 4

View Answer

Answer: d

Explanation: The binary form of 1 is 0001. The expression x<<2 implies we are performing bitwise left shift on x. This shift yields the value: 0100, which is the binary form of the number 4.

2. What will be the output of the following Python expression?
bin(29)
a) '0b10111'
b) '0b11101'
c) '0b11111'
d) '0b11011'
View Answer
Answer: b
Explanation: The binary form of the number 29 is 11101. Hence the output of this expression is '0b11101'.
3. What will be the value of x in the following Python expression, if the result of that expression is 2?
x>>2
a) 8
b) 4
c) 2
d) 1
View Answer
Answer: a
Explanation: When the value of x is equal to 8 (1000), then x>>2 (bitwise right shift) yields the value 0010, which is equal to 2. Hence the value of x is 8.
4. What will be the output of the following Python expression?
int(1011)?
a) 1011
b) 11
c) 13
d) 1101
View Answer
Answer: a
Explanation: The result of the expression shown will be 1011. This is because we have not specified the base in this expression. Hence it automatically takes the base as 10.
5. To find the decimal value of 1111, that is 15, we can use the function:
a) int(1111,10)
b) int('1111',10)
c) int(1111,2)
d) int('1111',2)
View Answer
Answer: d
Explanation: The expression int('1111',2) gives the result 15. The expression int('1111', 10) will give the result 1111.
6. What will be the output of the following Python expression if x=15 and y=12?
x & y
a) b1101
b) 0b1101

c) 12
d) 1101
View Answer

Answer: c

Explanation: The symbol '&' represents bitwise AND. This gives 1 if both the bits are equal to 1, else it gives 0. The binary form of 15 is 1111 and that of 12 is 1100. Hence on performing the bitwise AND operation, we get 1100, which is equal to 12.

7. Which of the following expressions results in an error?

a) int(1011)
b) int('1011',23)
c) int(1011,2)
d) int('1011')
View Answer

Answer: c

Explanation: The expression int(1011,2) results in an error. Had we written this expression as int('1011',2), then there would not be an error.

8. Which of the following represents the bitwise XOR operator?

a) &
b) ^
c) |
d) !
View Answer

Answer: b

Explanation: The ^ operator represent bitwise XOR operation. &: bitwise AND, | : bitwise OR and ! represents bitwise NOT.

9. What is the value of the following Python expression?

bin(0x8)

a) '0bx1000'
b) 8
c) 1000
d) '0b1000'
View Answer

Answer: d

Explanation: The prefix 0x specifies that the value is hexadecimal in nature. When we convert this hexadecimal value to binary form, we get the result as: '0b1000'.

10. What will be the output of the following Python expression?

0x35 | 0x75

a) 115
b) 116
c) 117
d) 118
View Answer

Answer: c

Explanation: The binary value of 0x35 is 110101 and that of 0x75 is 1110101. On OR-ing these

two values we get the output as: 1110101, which is equal to 117. Hence the result of the above expression is 117.

1. It is not possible for the two's complement value to be equal to the original value in any case.
a) True
b) False
View Answer

Answer: b
Explanation: In most cases the value of two's complement is different from the original value. However, there are cases in which the two's complement value may be equal to the original value. For example, the two's complement of 10000000 is also equal to 10000000. Hence the statement is false.

2. The one's complement of 110010101 is:
a) 001101010
b) 110010101
c) 001101011
d) 110010100
View Answer

Answer: a
Explanation: The one's complement of a value is obtained by simply changing all the 1's to 0's and all the 0's to 1's. Hence the one's complement of 110010101 is 001101010.

3. Bitwise _____ gives 1 if either of the bits is 1 and 0 when both of the bits are 1.
a) OR
b) AND
c) XOR
d) NOT
View Answer

Answer: c
Explanation: Bitwise XOR gives 1 if either of the bits is 1 and 0 when both of the bits are 1.
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4. What will be the output of the following Python expression?
4^12
a) 2
b) 4
c) 8
d) 12
View Answer

Answer: c
Explanation: ^ is the XOR operator. The binary form of 4 is 0100 and that of 12 is 1100. Therefore, 0100^1100 is 1000, which is equal to 8.

5. Any odd number on being AND-ed with _____ always gives 1. Hint: Any even number on being AND-ed with this value always gives 0.
a) 10
b) 2
c) 1

d) 0

View Answer

Answer: c

Explanation: Any odd number on being AND-ed with 1 always gives 1. Any even number on being AND-ed with this value always gives 0.

6. What will be the value of the following Python expression?

 bin(10-2)+bin(12^4)

a) 0b10000

b) 0b10001000

c) 0b1000b1000

d) 0b10000b1000

View Answer

Answer: d

Explanation: The output of bin(10-2) = 0b1000 and that of bin(12^4) is ob1000. Hence the output of the above expression is: 0b10000b1000.

7. Which of the following expressions can be used to multiply a given number 'a' by 4?

a) a<<2

b) a<<4

c) a>>2

d) a>>4

View Answer

Answer: a

Explanation: Let us consider an example wherein a=2. The binary form of 2 is 0010. When we left shift this value by 2, we get 1000, the value of which is 8. Hence if we want to multiply a given number 'a' by 4, we can use the expression: a<<2.

8. What will be the output of the following Python code if a=10 and b =20?

a=10

b=20

a=a^b

b=a^b

a=a^b

print(a,b)

a) 10 20

b) 10 10

c) 20 10

d) 20 20

View Answer

Answer: c

Explanation: The code shown above is used to swap the contents of two memory locations using bitwise X0R operator. Hence the output of the code shown above is: 20 10.

9. What is the two's complement of -44?

a) 1011011

b) 11010100

c) 11101011

d) 10110011
View Answer
Answer: b
Explanation: The binary form of -44 is 00101100. The one's complement of this value is 11010011. On adding one to this we get: 11010100 (two's complement).
10. What will be the output of the following Python expression?
~100?
a) 101
b) -101
c) 100
d) -100
View Answer
Answer: b
Explanation: Suppose we have an expression ~A. This is evaluated as: -A – 1. Therefore, the expression ~100 is evaluated as -100 – 1, which is equal to -101
1. What will be the output of the following Python code snippet?
bool('False')
bool()
a)
   True
   True
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b)
   False
   True
c)
   False
   False
d)
   True
   False
View Answer
Answer: d
Explanation: The Boolean function returns true if the argument passed to the bool function does not amount to zero. In the first example, the string 'False' is passed to the function bool. This does not amount to zero and hence the output is true. In the second function, an empty list is passed to the function bool. Hence the output is false.

2. What will be the output of the following Python code snippet?
['hello', 'morning'][bool('')]
a) error
b) no output
c) hello

d) morning
View Answer
Answer: c
Explanation: The line of code shown above can be simplified to state that 'hello' should be printed if the argument passed to the Boolean function amounts to zero, else 'morning' will be printed.
3. What will be the output of the following Python code snippet?
not(3>4)
not(1&1)
a)
  True
  True
b)
  True
  False
c)
  False
  True
d)
  False
  False
View Answer
Answer: b
Explanation: The function not returns true if the argument amounts to false, and false if the argument amounts to true. Hence the first function returns false, and the second function returns false.

4. What will be the output of the following Python code?
['f', 't'][bool('spam')]
a) t
b) f
c) No output
d) Error
View Answer
Answer: a
Explanation: The line of code can be translated to state that 'f' is printed if the argument passed to the Boolean function amount to zero. Else 't' is printed. The argument given to the Boolean function in the above case is 'spam', which does not amount to zero. Hence the output is t.
5. What will be the output of the following Python code?
l=[1, 0, 2, 0, 'hello', '', []]
list(filter(bool, l))
a) Error
b) [1, 0, 2, 0, 'hello', '', []]

c) [1, 0, 2, 'hello', ", []]
d) [1, 2, 'hello']
View Answer

Answer: d

Explanation: The code shown above returns a new list containing only those elements of the list l which do not amount to zero. Hence the output is: [1, 2, 'hello'].

6. What will be the output of the following Python code if the system date is 21st June, 2017 (Wednesday)?

[] **or** {}
{} **or** []

a)
```
   []
   {}
```
b)
```
   []
   []
```
c)
```
   {}
   []
```
d)
```
   {}
   {}
```
View Answer

Answer: c

Explanation: The code shown above shows two functions. In both the cases the right operand is returned. This is because each function is evaluated from left to right. Since the left operand is false, it is assumed that the right operand must be true and hence the right operand is returned in each of the above case.

7. What will be the output of the following Python code?

class Truth:
        pass
x=Truth()
bool(x)

a) pass
b) true
c) false
d) error
View Answer

Answer: b

Explanation: If the truth method is not defined, the object is considered true. Hence the output of the code shown above is true.

8. What will be the output of the following Python code?

if (9 < 0) **and** (0 < -9):
   print("hello")
elif (9 > 0) **or** False:
   print("good")
else:
   print("bad")
a) error
b) hello
c) good
d) bad
View Answer
Answer: c
Explanation: The code shown above prints the appropriate option depending on the conditions given. The condition which matches is (9>0), and hence the output is: good.
9. Which of the following Boolean expressions is not logically equivalent to the other three?
a) not(-6<0 or-6>10)
b) -6>=0 and -6<=10
c) not(-6<10 or-6==10)
d) not(-6>10 or-6==10)
View Answer
Answer: d
Explanation: The expression not(-6<0 or -6>10) returns the output False.
The expression -6>=0 and -6<=10 returns the output False.
The expression not(-6<10 or -6==10) returns the output False.
The expression not(-6>10 or -6==10) returns the output True.
10. What will be the output of the following Python code snippet?
not(10<20) **and not**(10>30)
a) True
b) False
c) Error
d) No output
View Answer
Answer: b
Explanation: The expression not(10<20) returns false. The expression not(10>30) returns true. The and operation between false and true returns false. Hence the output is false.
1. What will be the output of the following Python code snippet?
X="hi"
print("05d"%X)
a) 00000hi
b) 000hi
c) hi000
d) error
View Answer

Answer: d

Explanation: The code snippet shown above results in an error because the above formatting option works only if 'X' is a number. Since in the above case 'X' is a string, an error is thrown.

2. What will be the output of the following Python code snippet?

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X="san-foundry"
print("%56s",X)

a) 56 blank spaces before san-foundry
b) 56 blank spaces before san and foundry
c) 56 blank spaces after san-foundry
d) no change

View Answer

Answer: a

Explanation: The formatting option print("%Ns",X) helps us add 'N' number of spaces before a given string 'X'. Hence the output for the code snippet shown above will be 56 blank spaces before the string "san-foundry".

3. What will be the output of the following Python expression if x=456?

print("%-06d"%x)

a) 000456
b) 456000
c) 456
d) error

View Answer

Answer: c

Explanation: The expression shown above results in the output 456.

4. What will be the output of the following Python expression if X=345?

print("%06d"%X)

a) 345000
b) 000345
c) 000000345
d) 345000000

View Answer

Answer: b

Explanation: The above expression returns the output 000345. It adds the required number of zeroes before the given number in order to make the number of digits 6 (as specified in this case).

5. Which of the following formatting options can be used in order to add 'n' blank spaces after a given string 'S'?

a) print("-ns"%S)
b) print("-ns"%S)
c) print("%ns"%S)
d) print("%-ns"%S)

View Answer

Answer: d

Explanation: In order to add 'n' blank spaces after a given string 'S', we use the formatting option:("%-ns"%S).

6. What will be the output of the following Python expression if X = -122?

print("-%06d"%x)

a) -000122

b) 000122

c) –00122

d) -00122

View Answer

Answer: c

Explanation: The given number is -122. Here the total number of digits (including the negative sign) should be 6 according to the expression. In addition to this, there is a negative sign in the given expression. Hence the output will be – -00122.

7. What will be the output of the following Python expression if the value of x is 34?

print("%f"%x)

a) 34.00

b) 34.0000

c) 34.000000

d) 34.00000000

View Answer

Answer: c

Explanation: The expression shown above normally returns the value with 6 decimal points if it is not specified with any number. Hence the output of this expression will be: 34.000000 (6 decimal points).

8. What will be the output of the following Python expression if x=56.236?

print("%.2f"%x)

a) 56.00

b) 56.24

c) 56.23

d) 0056.236

View Answer

Answer: b

Explanation: The expression shown above rounds off the given number to the number of decimal places specified. Since the expression given specifies rounding off to two decimal places, the output of this expression will be 56.24. Had the value been x=56.234 (last digit being any number less than 5), the output would have been 56.23.

9. What will be the output of the following Python expression if x=22.19?

print("%5.2f"%x)

a) 22.1900

b) 22.00000

c) 22.19

d) 22.20

View Answer

Answer: c

Explanation: The output of the expression above will be 22.19. This expression specifies that the total number of digits (including the decimal point) should be 5, rounded off to two decimal places.

10. The expression shown below results in an error.

print("-%5d0",989)

a) True

b) False

View Answer

Answer: b

Explanation: The expression shown above does not result in an error. The output of this expression is -%5d0 989. Hence this statement is incorrect.

1. What will be the output of the following Python code snippet?

'%d %s %g you' %(1, 'hello', 4.0)

a) Error

b) 1 hello you 4.0

c) 1 hello 4 you

d) 1 4 hello you

View Answer

Answer: c

Explanation: In the snippet of code shown above, three values are inserted into the target string. When we insert more than one value, we should group the values on the right in a tuple. The % formatting expression operator expects either a single item or a tuple of one or more items on its right side.

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2. The output of which of the codes shown below will be: "There are 4 blue birds."?

a) 'There are %g %d birds.' %4 %blue

b) 'There are %d %s birds.' %(4, blue)

c) 'There are %s %d birds.' %[4, blue]

d) 'There are %d %s birds.' 4, blue

View Answer

Answer: b

Explanation: The code 'There are %d %s birds.' %(4, blue) results in the output: There are 4 blue birds. When we insert more than one value, we should group the values on the right in a tuple.

3. What will be the output of the python code shown below for various styles of format specifiers?

x=1234

res='integers:...%d...%-6d...%06d' %(x, x, x)

res

a) 'integers:…1234…1234 …001234'

b) 'integers…1234…1234…123400'

c) 'integers:… 1234…1234…001234'

d) 'integers:…1234…1234…001234'

View Answer

Answer: a

Explanation: The code shown above prints 1234 for the format specified %d, '1234 ' for the format specifier %-6d (minus '-' sign signifies left justification), and 001234 for the format specifier %06d. Hence the output of this code is: 'integers:…1234…1234 …001234'

4. What will be the output of the following Python code snippet?

```
x=3.3456789
'%f | %e | %g' %(x, x, x)
```
a) Error
b) '3.3456789 | 3.3456789+00 | 3.345678'
c) '3.345678 | 3.345678e+0 | 3.345678'
d) '3.345679 | 3.345679e+00 | 3.34568'

View Answer

Answer: d

Explanation: The %f %e and %g format specifiers represent floating point numbers in different ways. %e and %E are the same, except that the exponent is in lowercase. %g chooses the format by number content. Hence the output of this code is: '3.345679 | 3.345679e+00 | 3.34568'.

5. What will be the output of the following Python code snippet?

```
x=3.3456789
'%-6.2f | %05.2f | %+06.1f' %(x, x, x)
```
a) '3.35 | 03.35 | +003.3'
b) '3.3456789 | 03.3456789 | +03.3456789'
c) Error
d) '3.34 | 03.34 | 03.34+'

View Answer

Answer: a

Explanation: The code shown above rounds the floating point value to two decimal places. In this code, a variety of addition formatting features such as zero padding, total field width etc. Hence the output of this code is: '3.35 | 03.35 | +003.3'.

6. What will be the output of the following Python code snippet?

```
x=3.3456789
'%s' %x, str(x)
```
a) Error
b) ('3.3456789', '3.3456789')
c) (3.3456789, 3.3456789)
d) ('3.3456789', 3.3456789)

View Answer

Answer: b

Explanation: We can simply convert strings with a %s format expression or the str built-in function. Both of these methods have been shown in this code. Hence the output is:)
('3.3456789', '3.3456789')

7. What will be the output of the following Python code snippet?

```
'%(qty)d more %(food)s' %{'qty':1, 'food': 'spam'}
```

a) Error
b) No output
c) '1 more foods'
d) '1 more spam'
View Answer

Answer: d
Explanation: String formatting also allows conversion targets on the left to refer to the keys in a dictionary coded on the right and fetch the corresponding values. In the code shown above, (qty) and (food) in the format string on the left refers to keys in the dictionary literal on the right and fetch their assorted values. Hence the output of the code shown above is: 1 more spam.

8. What will be the output of the following Python code snippet?

```
a='hello'
q=10
vars()
```

a) {'a' : 'hello', 'q' : 10, ……...plus built-in names set by Python….}
b) {……Built in names set by Python……}
c) {'a' : 'hello', 'q' : 10}
d) Error
View Answer

Answer: a
Explanation: The built in function vars() returns a dictionary containing all the variables that exist in the place. Hence the output of the code shown above is: {'a' : 'hello', 'q' : 10, ……...plus built-in names set by Python….}

9. What will be the output of the following Python code?

```
s='{0}, {1}, and {2}'
s.format('hello', 'good', 'morning')
```

a) 'hello good and morning'
b) 'hello, good, morning'
c) 'hello, good, and morning'
d) Error
View Answer

Answer: c
Explanation: Within the subject string, curly braces designate substitution targets and arguments to be inserted either by position or keyword. Hence the output of the code shown above:'hello, good,and morning'.

10. What will be the output of the following Python code?

```
s='%s, %s & %s'
s%('mumbai', 'kolkata', 'delhi')
```

a) mumbai kolkata & delhi
b) Error
c) No output
d) 'mumbai, kolkata & delhi'
View Answer

Answer: d

Explanation: In the code shown above, the format specifier %s is replaced by the designated substitution. Hence the output of the code shown above is: 'mumbai, kolkata & delhi'.

11. What will be the output of the following Python code?

```
t = '%(a)s, %(b)s, %(c)s'
t % dict(a='hello', b='world', c='universe')
```

a) 'hello, world, universe'
b) 'hellos, worlds, universes'
c) Error
d) hellos, world, universe

View Answer

Answer: a

Explanation: Within the subject string, curly braces represent substitution targets and arguments to be inserted. Hence the output of the code shown above:
'hello, world, universe'.

12. What will be the output of the following Python code?

```
'{a}, {0}, {abc}'.format(10, a=2.5, abc=[1, 2])
```

a) Error
b) '2.5, 10, [1, 2]'
c) 2.5, 10, 1, 2
d) '10, 2.5, [1, 2]'

View Answer

Answer: b

Explanation: Since we have specified that the order of the output be: {a}, {0}, {abc}, hence the value of associated with {a} is printed first followed by that of {0} and {abc}. Hence the output of the code shown above is: '2.5, 10, [1, 2]'.

13. What will be the output of the following Python code?

```
'{0:.2f}'.format(1.234)
```

a) '1'
b) '1.234'
c) '1.23'
d) '1.2'

View Answer

Answer: c

Explanation: The code shown above displays the string method to round off a given decimal number to two decimal places. Hence the output of the code is: '1.23'.

14. What will be the output of the following Python code?

```
'%x %d' %(255, 255)
```

a) 'ff, 255'
b) '255, 255'
c) '15f, 15f'
d) Error

View Answer

Answer: a

Explanation: The code shown above converts the given arguments to hexadecimal and decimal values and prints the result. This is done using the format specifiers %x and %d respectively. Hence the output of the code shown above is: 'ff, 255'.

15. The output of the two codes shown below is the same.

i. '{0:.2f}'.format(1/3.0)

ii. '%.2f'%(1/3.0)

a) True
b) False

View Answer

Answer: a

Explanation: The two codes shown above represent the same operation but in different formats. The output of both of these functions is: '0.33'. Hence the statement is true.

1. What will be the output of the following Python code?

l=list('HELLO')

'first={0[0]}, third={0[2]}'.format(l)

a) 'first=H, third=L'
b) 'first=0, third=2'
c) Error
d) 'first=0, third=L'

View Answer

Answer: a

Explanation: In the code shown above, the value for first is substituted by l[0], that is H and the value for third is substituted by l[2], that is L. Hence the output of the code shown above is: 'first=H, third=L'. The list l= ['H', 'E', 'L', 'L', 'O'].

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2. What will be the output of the following Python code?

l=list('HELLO')

p=l[0], l[-1], l[1:3]

'a={0}, b={1}, c={2}'.format(*p)

a) Error
b) "a='H', b='O', c=(E, L)"
c) "a=H, b=O, c=['E', 'L']"
d) Junk value

View Answer

Answer: c

Explanation: In the code shown above, the value for a is substituted by l[0], that is 'H', the value of b is substituted by l[-1], that is 'O' and the value for c is substituted by l[1:3]. Here the use of *p is to unpack a tuple items into individual function arguments.

3. The formatting method {1:<10} represents the _____ positional argument, _____ justified in a 10 character wide field.

a) first, right
b) second, left
c) first, left

d) second, right
View Answer
Answer: b
Explanation: The formatting method {1:<10} represents the second positional argument, left justified in a 10 character wide field.
4. What will be the output of the following Python code?
hex(255), int('FF', 16), 0xFF
a) [0xFF, 255, 16, 255]
b) ('0xff', 155, 16, 255)
c) Error
d) ('0xff', 255, 255)
View Answer
Answer: d
Explanation: The code shown above converts the value 255 into hexadecimal, that is, 0xff. The value 'FF' into integer. Hence the output of the code shown is: ('0xff', 255, 255).
5. The output of the two codes shown below is the same.
i. bin((2**16)-1)
ii. '{}'.format(bin((2**16)-1))
a) True
b) False
View Answer
Answer: a
Explanation: The output of both of the codes shown above is '0b1111111111111111'. Hence the statement is true.
6. What will be the output of the following Python code?
'{a}{b}{a}'.format(a='hello', b='world')
a) 'hello world'
b) 'hello' 'world' 'hello'
c) 'helloworldhello'
d) 'hello' 'hello' 'world'
View Answer
Answer: c
Explanation: The code shown above prints the values substituted for a, b, a, in the same order. This operation is performed using the format function. Hence the output of the code is: 'helloworldhello'.
7. What will be the output of the following Python code?
 D=dict(p='san', q='foundry')
'{p}{q}'.format(**D)
a) Error
b) sanfoundry
c) san foundry
d) {'san', 'foundry'}
View Answer

Answer: b

Explanation: The code shown above prints the values substituted for p and q in the same order. Note that there is no blank space between p and q. Hence the output is: sanfoundry.

8. What will be the output of the following Python code?

'The {} side {1} {2}'.format('bright', 'of', 'life')

a) Error
b) 'The bright side of life'
c) 'The {bright} side {of} {life}'
d) No output

View Answer

Answer: a

Explanation: The code shown above results in an error. This is because we have switched from automatic field numbering to manual field numbering, that is, from {} to {1}. Hence this code results in an error.

9. What will be the output of the following Python code?

'{0:f}, {1:2f}, {2:05.2f}'.format(1.23456, 1.23456, 1.23456)

a) Error
b) '1.234560, 1.22345, 1.23'
c) No output
d) '1.234560, 1.234560, 01.23'

View Answer

Answer: d

Explanation: In the code shown above, various formatting options are displayed using the format option. Hence the output of this code is: '1.234560, 1.234560, 01.23'

10. What will be the output of the following Python code?

'%.2f%s' % (1.2345, 99)

a) '1.2345', '99'
b) '1.2399'
c) '1.234599'
d) 1.23, 99

View Answer

Answer: b

Explanation: In this code, we must notice that since multiple values haven been given, they should be enclosed in a tuple. Since the formatting format is %.2f, the value 1.2345 is reduced to two decimal places. Hence the output of the code shown above: '1.2399'.

11. What will be the output of the following Python code?

'%s' %((1.23,),)

a) '(1.23,)'
b) 1.23,
c) (,1.23)
d) '1.23'

View Answer

Answer: a

Explanation: The formatting expression accepts either a single substitution value, or a tuple of

one or more items. Since single item can be given either by itself or within the tuple, a tuple to be formatted must be provided as a tested tuple. Hence the output of the code is: >>> '%s' %((1.23,),).

12. What will be the output of the following two codes?

i. '{0}'.format(4.56)

ii. '{0}'.format([4.56,])

a) '4.56', '4.56,'

b) '4.56', '[4.56]'

c) 4.56, [4.56,]

d) 4.56, [4.56,]

View Answer

Answer: b

Explanation: The code shown above shows the formatting option on the same value, that is 4.56, where in the second case, the value is enclosed in a list. Hence the output of the code shown above is:

'4.56', '[4.56]

1. What will be the output of the following Python code?

```python
def mk(x):
    def mk1():
        print("Decorated")
        x()
    return mk1
def mk2():
    print("Ordinary")
p = mk(mk2)
p()
```

a)
   Decorated
   Decorated
advertisement

b)
   Ordinary
   Ordinary

c)
   Ordinary
   Decorated

d)
   Decorated
   Ordinary

View Answer

Answer: d

Explanation: The code shown above first prints the word "Decorated" and then "ordinary". Hence the output of this code is:

Decorated
Ordinary.

2. In the following Python code, which function is the decorator?
def mk(x):
   def mk1():
      print("Decorated")
      x()
   return mk1
def mk2():
   print("Ordinary")
p = mk(mk2)
p()
a) p()
b) mk()
c) mk1()
d) mk2()
View Answer

Answer: b
Explanation: In the code shown above, the function mk() is the decorator. The function which is getting decorated is mk2(). The return function is given the name p().
3. The _____ symbol along with the name of the decorator function can be placed above the definition of the function to be decorated works as an alternate way for decorating a function.
a) #
b) $
c) @
d) &
View Answer

Answer: c
Explanation: The @ symbol along with the name of the decorator function can be placed above the definition of the function to be decorated works as an alternate way for decorating a function.
4. What will be the output of the following Python code?
def ordi():
      print("Ordinary")
ordi
ordi()
a)
   Address
   Ordinary
b)
   Error
   Address

c)
  Ordinary
  Ordinary
d)
  Ordinary
   Address
View Answer

Answer: a

Explanation: The code shown above returns the address on the function ordi first, after which the word "Ordinary" is printed. Hence the output of this code is:
Address
Ordinary.

5. The two snippets of the following Python codes are equivalent.
CODE 1

```
 @f
def f1():
     print("Hello")
```

CODE 2

```
 def f1():
      print("Hello")
f1 = f(f1)
```

a) True
b) False
View Answer

Answer: a

Explanation: The @ symbol can be used as an alternate way to specify a function that needs to be decorated. The output of the codes shown above is the same. Hence they are equivalent. Therefore this statement is true.

6. What will be the output of the following Python function?

```
def f(p, q):
        return p%q
f(0, 2)
f(2, 0)
```

a)
  0
  0
b)
  Zero Division Error
  Zero Division Error
c)
  0
  Zero Division Error

d)

   Zero Division Error

   0

View Answer

Answer: c

Explanation: The output of f(0, 2) is 0, since o%2 is equal to 0. The output of the f(2, 0) is a Zero Division Error. We can make use of decorators in order to avoid this error.

7. What will be the output of the following Python code?

def f(x):

   def f1(a, b):

     print("hello")

     if b==0:

       print("NO")

       return

     return f(a, b)

   return f1

@f

def f(a, b):

   return a%b

f(4,0)

a)

   hello

   NO

b)

   hello

   Zero Division Error

c) NO

d) hello

View Answer

Answer: a

Explanation: In the code shown above, we have used a decorator in order to avoid the Zero Division Error. Hence the output of this code is:

   hello

   NO

8. What will be the output of the following Python code?

def f(x):

   def f1(*args, **kwargs):

     print("*"* 5)

     x(*args, **kwargs)

     print("*"* 5)

   return f1

def a(x):

```
    def f1(*args, **kwargs):
        print("%"* 5)
        x(*args, **kwargs)
        print("%"* 5)
    return f1
@f
@a
def p(m):
    print(m)
p("hello")
```
a)
```
   *****
   %%%%%
   hello
   %%%%%
   *****
```
b) Error

c) *****%%%%%hello%%%%%*****

d) hello

View Answer

Answer: a

Explanation: The code shown above uses multiple decorators. The output of this code is:
```
   *****
   %%%%%
   hello
   %%%%%
   *****
```

9. The following python code can work with _____ parameters.
```
def f(x):
    def f1(*args, **kwargs):
        print("Sanfoundry")
        return x(*args, **kwargs)
    return f1
```
a) 2

b) 1

c) any number of

d) 0

View Answer

Answer: c

Explanation: The code shown above shows a general decorator which can work with any number of arguments.

10. What will be the output of the following Python code?
```
def f(x):
    def f1(*args, **kwargs):
```

```python
    print("*", 5)
    x(*args, **kwargs)
    print("*", 5)
  return f1
@f
def p(m):
  p(m)
print("hello")
```
a)
```
    *****
    hello
```
b)
```
    *****
    *****
    hello
```
c) *****
d) hello
View Answer
Answer: d
Explanation: In the code shown above, we have not passed any parameter to the function p.
Hence the output of this code is: hello.
11. A function with parameters cannot be decorated.
a) True
b) False
View Answer
Answer: b
Explanation: Any function, irrespective of whether or not it has parameters can be decorated.
Hence the statement is false.
12. Identify the decorator in the snippet of code shown below.
```python
def sf():
    pass
sf = mk(sf)
@f
def sf():
    return
```
a) @f
b) f
c) sf()
d) mk
View Answer
Answer: d
Explanation: In the code shown above, @sf is not a decorator but only a decorator line. The '@'
symbol represents the application of a decorator. The decorator here is the function mk.
13. What will be the output of the following Python code?

```python
class A:
    @staticmethod
    def a(x):
        print(x)
A.a(100)
```
a) Error
b) Warning
c) 100
d) No output
View Answer

Answer: c

Explanation: The code shown above demonstrates rebinding using a static method. This can be done with or without a decorator. The output of this code will be 100.

14. What will be the output of the following Python code?

```python
def d(f):
    def n(*args):
        return '$' + str(f(*args))
    return n
@d
def p(a, t):
    return a + a*t
print(p(100,0))
```
a) 100
b) $100
c) $0
d) 0
View Answer

Answer: b

Explanation: In the code shown above, the decorator helps us to prefix the dollar sign along with the value. Since the second argument is zero, the output of the code is: $100.

15. What will be the output of the following Python code?

```python
def c(f):
    def inner(*args, **kargs):
        inner.co += 1
        return f(*args, **kargs)
    inner.co = 0
    return inner
@c
def fnc():
    pass
if __name__ == '__main__':
    fnc()
    fnc()
    fnc()
```

print(fnc.co)
a) 4
b) 3
c) 0
d) 1
View Answer

Answer: b
Explanation: The code shown above returns the number of times a given function has been called. Hence the output of this code is: 3

1. What will be the output of the following Python code?

```
x = ['ab', 'cd']
for i in x:
    i.upper()
print(x)
```

a) ['ab', 'cd']
b) ['AB', 'CD']
c) [None, None]
d) none of the mentioned
View Answer

Answer: a
Explanation: The function upper() does not modify a string in place, it returns a new string which isn't being stored anywhere.

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2. What will be the output of the following Python code?

```
x = ['ab', 'cd']
for i in x:
    x.append(i.upper())
print(x)
```

a) ['AB', 'CD']
b) ['ab', 'cd', 'AB', 'CD']
c) ['ab', 'cd']
d) none of the mentioned
View Answer

Answer: d
Explanation: The loop does not terminate as new elements are being added to the list in each iteration.

3. What will be the output of the following Python code?

```
i = 1
while True:
    if i%3 == 0:
        break
    print(i)

    i + = 1
```

a) 1 2
b) 1 2 3
c) error
d) none of the mentioned
View Answer
Answer: c
Explanation: SyntaxError, there shouldn't be a space between + and = in +=.
4. What will be the output of the following Python code?
```
i = 1
while True:
    if i%0O7 == 0:
        break
    print(i)
    i += 1
```
a) 1 2 3 4 5 6
b) 1 2 3 4 5 6 7
c) error
d) none of the mentioned
View Answer
Answer: a
Explanation: Control exits the loop when i becomes 7.
5. What will be the output of the following Python code?
```
i = 5
while True:
    if i%0O11 == 0:
        break
    print(i)
    i += 1
```
a) 5 6 7 8 9 10
b) 5 6 7 8
c) 5 6
d) error
View Answer
Answer: b
Explanation: 0O11 is an octal number.
6. What will be the output of the following Python code?
```
i = 5
while True:
    if i%0O9 == 0:
        break
    print(i)
    i += 1
```
a) 5 6 7 8
b) 5 6 7 8 9

c) 5 6 7 8 9 10 11 12 13 14 15 ….

d) error

View Answer

Answer: d

Explanation: 9 isn't allowed in an octal number.

7. What will be the output of the following Python code?

```python
i = 1
while True:
    if i%2 == 0:
        break
    print(i)
    i += 2
```

a) 1

b) 1 2

c) 1 2 3 4 5 6 …

d) 1 3 5 7 9 11 …

View Answer

Answer: d

Explanation: The loop does not terminate since i is never an even number.

8. What will be the output of the following Python code?

```python
i = 2
while True:
    if i%3 == 0:
        break
    print(i)
    i += 2
```

a) 2 4 6 8 10 …

b) 2 4

c) 2 3

d) error

View Answer

Answer: b

Explanation: The numbers 2 and 4 are printed. The next value of i is 6 which is divisible by 3 and hence control exits the loop.

9. What will be the output of the following Python code?

```python
i = 1
while False:
    if i%2 == 0:
        break
    print(i)
    i += 2
```

a) 1

b) 1 3 5 7 …

c) 1 2 3 4 …

d) none of the mentioned

View Answer

Answer: d

Explanation: Control does not enter the loop because of False.

10. What will be the output of the following Python code?

```python
True = False
while True:
    print(True)
    break
```

a) True

b) False

c) None

d) none of the mentioned

View Answer

Answer: d

Explanation: SyntaxError, True is a keyword and it's value cannot be changed.

1. What will be the output of the following Python code?

```python
i = 0
while i < 5:
    print(i)
    i += 1
    if i == 3:
        break
else:
    print(0)
```

a) 0 1 2 0

b) 0 1 2

c) error

d) none of the mentioned

View Answer

Answer: b

Explanation: The else part is not executed if control breaks out of the loop.

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2. What will be the output of the following Python code?

```python
i = 0
while i < 3:
    print(i)
    i += 1
else:
    print(0)
```

a) 0 1 2 3 0

b) 0 1 2 0

c) 0 1 2

d) error

View Answer

Answer: b

Explanation: The else part is executed when the condition in the while statement is false.

3. What will be the output of the following Python code?

```python
x = "abcdef"
while i in x:
    print(i, end=" ")
```

a) a b c d e f

b) abcdef

c) i i i i i i …

d) error

View Answer

Answer: d

Explanation: NameError, i is not defined.

4. What will be the output of the following Python code?

```python
x = "abcdef"
i = "i"
while i in x:
    print(i, end=" ")
```

a) no output

b) i i i i i i …

c) a b c d e f

d) abcdef

View Answer

Answer: a

Explanation: "i" is not in "abcdef".

5. What will be the output of the following Python code?

```python
x = "abcdef"
i = "a"
while i in x:
    print(i, end = " ")
```

a) no output

b) i i i i i i …

c) a a a a a a …

d) a b c d e f

View Answer

Answer: c

Explanation: As the value of i or x isn't changing, the condition will always evaluate to True.

6. What will be the output of the following Python code?

```python
x = "abcdef"
i = "a"
while i in x:
    print('i', end = " ")
```

a) no output
b) i i i i i i …
c) a a a a a a …
d) a b c d e f
View Answer
Answer: b
Explanation: Here i i i i i … printed continuously because as the value of i or x isn't changing, the condition will always evaluate to True. But also here we use a citation marks on "i", so, here i treated as a string, not like a variable.
7. What will be the output of the following Python code?
x = "abcdef"
i = "a"
while i **in** x:
  x = x[:-1]
  print(i, end = " ")
a) i i i i i i
b) a a a a a a
c) a a a a a
d) none of the mentioned
View Answer
Answer: b
Explanation: The string x is being shortened by one character in each iteration.
8. What will be the output of the following Python code?
x = "abcdef"
i = "a"
while i **in** x[:-1]:
  print(i, end = " ")
a) a a a a a
b) a a a a a a
c) a a a a a a …
d) a
View Answer
Answer: c
Explanation: String x is not being altered and i is in x[:-1].
9. What will be the output of the following Python code?
x = "abcdef"
i = "a"
while i **in** x:
  x = x[1:]
  print(i, end = " ")
a) a a a a a a
b) a
c) no output

d) error

View Answer

Answer: b

Explanation: The string x is being shortened by one character in each iteration.

10. What will be the output of the following Python code?

```
x = "abcdef"
i = "a"
while i in x[1:]:
    print(i, end = " ")
```

a) a a a a a a

b) a

c) no output

d) error

View Answer

Answer: c

Explanation: i is not in x[1:].

1. What will be the output of the following Python code?

```
x = 'abcd'
for i in x:
    print(i)
    x.upper()
```

a) a B C D

b) a b c d

c) A B C D

d) error

View Answer

Answer: b

Explanation: Changes do not happen in-place, rather a new instance of the string is returned.

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2. What will be the output of the following Python code?

```
x = 'abcd'
for i in x:
    print(i.upper())
```

a) a b c d

b) A B C D

c) a B C D

d) error

View Answer

Answer: b

Explanation: The instance of the string returned by upper() is being printed.

3. What will be the output of the following Python code?

```
x = 'abcd'
for i in range(x):
    print(i)
```

a) a b c d
b) 0 1 2 3
c) error
d) none of the mentioned
View Answer
Answer: c
Explanation: range(str) is not allowed.
4. What will be the output of the following Python code?
x = 'abcd'
for i **in** range(len(x)):
    print(i)
a) a b c d
b) 0 1 2 3
c) error
d) 1 2 3 4
View Answer
Answer: b
Explanation: i takes values 0, 1, 2 and 3.
5. What will be the output of the following Python code?
x = 'abcd'
for i **in** range(len(x)):
    print(i.upper())
a) a b c d
b) 0 1 2 3
c) error
d) 1 2 3 4
View Answer
Answer: c
Explanation: Objects of type int have no attribute upper().
6. What will be the output of the following Python code snippet?
x = 'abcd'
for i **in** range(len(x)):
    i.upper()
print (x)
a) a b c d
b) 0 1 2 3
c) error
d) none of the mentioned
View Answer
Answer: c
Explanation: Objects of type int have no attribute upper().
7. What will be the output of the following Python code snippet?
x = 'abcd'
for i **in** range(len(x)):

```
   x[i].upper()
print (x)
```
a) abcd
b) ABCD
c) error
d) none of the mentioned
View Answer
Answer: a
Explanation: Changes do not happen in-place, rather a new instance of the string is returned.
8. What will be the output of the following Python code snippet?
```
x = 'abcd'
for i in range(len(x)):
   i[x].upper()
print (x)
```
a) abcd
b) ABCD
c) error
d) none of the mentioned
View Answer
Answer: c
Explanation: Objects of type int aren't subscriptable. However, if the statement was x[i], an error would not have been thrown.
9. What will be the output of the following Python code snippet?
```
x = 'abcd'
for i in range(len(x)):
   x = 'a'
   print(x)
```
a) a
b) abcd abcd abcd
c) a a a a
d) none of the mentioned
View Answer
Answer: c
Explanation: range() is computed only at the time of entering the loop.
10. What will be the output of the following Python code snippet?
```
x = 'abcd'
for i in range(len(x)):
   print(x)
   x = 'a'
```
a) a
b) abcd abcd abcd abcd
c) a a a a
d) none of the mentioned
View Answer

Answer: d

Explanation: abcd a a a is the output as x is modified only after 'abcd' has been printed once

Q. . What will be the output of the following Python code?

```
x = 123
for i in x:
    print(i)
```

a) 1 2 3
b) 123
c) error
d) none of the mentioned

View Answer

Answer: c

Explanation: Objects of type int are not iterable.

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2. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}
for i in d:
    print(i)
```

a) 0 1 2
b) a b c
2 c   1 b   c) 0 a
d) none of the mentioned

View Answer

Answer: a

Explanation: Loops over the keys of the dictionary.

3. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}
for x, y in d:
    print(x, y)
```

a) 0 1 2
b) a b c
2 c   1 b   c) 0 a
d) none of the mentioned

View Answer

Answer: d

Explanation: Error, objects of type int aren't iterable.

4. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}
for x, y in d.items():
    print(x, y)
```

a) 0 1 2
b) a b c
2 c   1 b   c) 0 a

d) none of the mentioned
View Answer
Answer: c
Explanation: Loops over key, value pairs.
5. What will be the output of the following Python code?
d = {0: 'a', 1: 'b', 2: 'c'}
for x **in** d.keys():
    print(d[x])
a) 0 1 2
b) a b c
2 c   1 b   c) 0 a
d) none of the mentioned
View Answer
Answer: b
Explanation: Loops over the keys and prints the values.
6. What will be the output of the following Python code?
d = {0: 'a', 1: 'b', 2: 'c'}
for x **in** d.values():
    print(x)
a) 0 1 2
b) a b c
2 c   1 b   c) 0 a
d) none of the mentioned
View Answer
Answer: b
Explanation: Loops over the values.
7. What will be the output of the following Python code?
d = {0: 'a', 1: 'b', 2: 'c'}
for x **in** d.values():
    print(d[x])
a) 0 1 2
b) a b c
2 c   1 b   c) 0 a
d) none of the mentioned
View Answer
Answer: d
Explanation: Causes a KeyError.
8. What will be the output of the following Python code?
d = {0, 1, 2}
for x **in** d.values():
    print(x)
a) 0 1 2
b) None None None
c) error

d) none of the mentioned

View Answer

Answer: c

Explanation: Objects of type set have no attribute values.

9. What will be the output of the following Python code?

```
d = {0, 1, 2}
for x in d:
    print(x)
```

a) 0 1 2

b) {0, 1, 2} {0, 1, 2} {0, 1, 2}

c) error

d) none of the mentioned

View Answer

Answer: a

Explanation: Loops over the elements of the set and prints them.

10. What will be the output of the following Python code?

```
d = {0, 1, 2}
for x in d:
    print(d.add(x))
```

a) 0 1 2

b) 0 1 2 0 1 2 0 1 2 …

c) None None None

d) None of the mentioned

View Answer

Answer: c

Explanation: Variable x takes the values 0, 1 and 2. set.add() returns None which is printed.

11. What will be the output of the following Python code?

```
for i in range(0):
    print(i)
```

a) 0

b) no output

c) error

d) none of the mentioned

View Answer

Answer: b

Explanation: range(0) is empty.

1. What will be the output of the following Python code?

```
for i in range(2.0):
    print(i)
```

a) 0.0 1.0

b) 0 1

c) error

d) none of the mentioned

View Answer

Answer: c

Explanation: Object of type float cannot be interpreted as an integer.

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2. What will be the output of the following Python code?

```
for i in range(int(2.0)):
    print(i)
```

a) 0.0 1.0
b) 0 1
c) error
d) none of the mentioned

View Answer

Answer: b

Explanation: range(int(2.0)) is the same as range(2).

3. What will be the output of the following Python code?

```
for i in range(float('inf')):
    print (i)
```

a) 0.0 0.1 0.2 0.3 …
b) 0 1 2 3 …
c) 0.0 1.0 2.0 3.0 …
d) none of the mentioned

View Answer

Answer: d

Explanation: Error, objects of type float cannot be interpreted as an integer.

4. What will be the output of the following Python code?

```
for i in range(int(float('inf'))):
    print (i)
```

a) 0.0 0.1 0.2 0.3 …
b) 0 1 2 3 …
c) 0.0 1.0 2.0 3.0 …
d) none of the mentioned

View Answer

Answer: d

Explanation: OverflowError, cannot convert float infinity to integer.

5. What will be the output of the following Python code snippet?

```
for i in [1, 2, 3, 4][::-1]:
    print (i)
```

a) 1 2 3 4
b) 4 3 2 1
c) error
d) none of the mentioned

View Answer

Answer: b

Explanation: [::-1] reverses the list.

6. What will be the output of the following Python code snippet?

```
for i in ''.join(reversed(list('abcd'))):
    print (i)
```
a) a b c d
b) d c b a
c) error
d) none of the mentioned
View Answer
Answer: b
Explanation: ' '.join(reversed(list('abcd'))) reverses a string.
7. What will be the output of the following Python code snippet?
```
for i in 'abcd'[::-1]:
    print (i)
```
a) a b c d
b) d c b a
c) error
d) none of the mentioned
View Answer
Answer: b
Explanation: [::-1] reverses the string.
8. What will be the output of the following Python code snippet?
```
for i in '':
    print (i)
```
a) None
b) (nothing is printed)
c) error
d) none of the mentioned
View Answer
Answer: b
Explanation: The string does not have any character to loop over.
9. What will be the output of the following Python code snippet?
```
x = 2
for i in range(x):
    x += 1
    print (x)
```
a) 0 1 2 3 4 …
b) 0 1
c) 3 4
d) 0 1 2 3
View Answer
Answer: c
Explanation: Variable x is incremented and printed twice.
10. What will be the output of the following Python code snippet?
```
x = 2
for i in range(x):
```

```
    x -= 2
    print (x)
```
a) 0 1 2 3 4 ...
b) 0 -2
c) 0
d) error
View Answer
Answer: b
Explanation: The loop is entered twice.
1. What will be the output of the following Python code?
```
for i in range(10):
    if i == 5:
        break
    else:
        print(i)
else:
    print("Here")
```
a) 0 1 2 3 4 Here
b) 0 1 2 3 4 5 Here
c) 0 1 2 3 4
d) 1 2 3 4 5
View Answer
Answer: c
Explanation: The else part is executed if control doesn't break out of the loop.
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2. What will be the output of the following Python code?
```
for i in range(5):
    if i == 5:
        break
    else:
        print(i)
else:
    print("Here")
```
a) 0 1 2 3 4 Here
b) 0 1 2 3 4 5 Here
c) 0 1 2 3 4
d) 1 2 3 4 5
View Answer
Answer: a
Explanation: The else part is executed if control doesn't break out of the loop.
3. What will be the output of the following Python code?
```
x = (i for i in range(3))
for i in x:
    print(i)
```

a) 0 1 2
b) error
c) 0 1 2 0 1 2
d) none of the mentioned
View Answer

Answer: a
Explanation: The first statement creates a generator object.
4. What will be the output of the following Python code?
x = (i **for** i **in** range(3))
for i **in** x:
　　print(i)
for i **in** x:
　　print(i)
a) 0 1 2
b) error
c) 0 1 2 0 1 2
d) none of the mentioned
View Answer

Answer: a
Explanation: We can loop over a generator object only once.
5. What will be the output of the following Python code?
string = "my name is x"
for i **in** string:
　　print (i, end=", ")
a) m, y, , n, a, m, e, , i, s, , x,
b) m, y, , n, a, m, e, , i, s, , x
c) my, name, is, x,
d) error
View Answer

Answer: a
Explanation: Variable i takes the value of one character at a time.
6. What will be the output of the following Python code?
string = "my name is x"
for i **in** string.split():
　　print (i, end=", ")
a) m, y, , n, a, m, e, , i, s, , x,
b) m, y, , n, a, m, e, , i, s, , x
c) my, name, is, x,
d) error
View Answer

Answer: c
Explanation: Variable i takes the value of one word at a time.
7. What will be the output of the following Python code snippet?
a = [0, 1, 2, 3]

for a[-1] **in** a:
   print(a[-1])
a) 0 1 2 3
b) 0 1 2 2
c) 3 3 3 3
d) error
View Answer
Answer: b
Explanation: The value of a[-1] changes in each iteration.
8. What will be the output of the following Python code snippet?
a = [0, 1, 2, 3]
for a[0] **in** a:
   print(a[0])
a) 0 1 2 3
b) 0 1 2 2
c) 3 3 3 3
d) error
View Answer
Answer: a
Explanation: The value of a[0] changes in each iteration. Since the first value that it takes is itself, there is no visible error in the current example.
9. What will be the output of the following Python code snippet?
a = [0, 1, 2, 3]
i = -2
for i **not in** a:
   print(i)
   i += 1
a) -2 -1
b) 0
c) error
d) none of the mentioned
View Answer
Answer: c
Explanation: SyntaxError, not in isn't allowed in for loops.
10. What will be the output of the following Python code snippet?
string = "my name is x"
for i **in** ' '.join(string.split()):
   print (i, end=", ")
a) m, y, , n, a, m, e, , i, s, , x,
b) m, y, , n, a, m, e, , i, s, , x
c) my, name, is, x,
d) error
View Answer

Answer: a

Explanation: Variable i takes the value of one character at a time.

1. What will be the output of the following Python statement?

    1. >>>"a"+"bc"

a) a
b) bc
c) bca
d) abc

View Answer

Answer: d

Explanation: + operator is concatenation operator.

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2. What will be the output of the following Python statement?

    1. >>>"abcd"[2:]

a) a
b) ab
c) cd
d) dc

View Answer

Answer: c

Explanation: Slice operation is performed on string.

3. The output of executing string.ascii_letters can also be achieved by:

a) string.ascii_lowercase_string.digits
b) string.ascii_lowercase+string.ascii_uppercase
c) string.letters
d) string.lowercase_string.uppercase

View Answer

Answer: b

Explanation: Execute in shell and check.

4. What will be the output of the following Python code?

    1. >>> str1 = 'hello'
    2. >>> str2 = ','
    3. >>> str3 = 'world'
    4. >>> str1[-1:]

a) olleh
b) hello
c) h
d) o

View Answer

Answer: d

Explanation: -1 corresponds to the last index.

5. What arithmetic operators cannot be used with strings?

a) +
b) *

c) –
d) All of the mentioned

View Answer

Answer: c

Explanation: + is used to concatenate and * is used to multiply strings.

6. What will be the output of the following Python code?

1. >>>print (r"**\n**hello")

a) a new line and hello
b) \nhello
c) the letter r and then hello
d) error

View Answer

Answer: b

Explanation: When prefixed with the letter 'r' or 'R' a string literal becomes a raw string and the escape sequences such as \n are not converted.

7. What will be the output of the following Python statement?

1. >>>print('new' 'line')

a) Error
b) Output equivalent to print 'new\nline'
c) newline
d) new line

View Answer

Answer: c

Explanation: String literal separated by whitespace are allowed. They are concatenated.

8. What will be the output of the following Python statement?

1. >>> print('x\97**\x98**')

a) Error
b)
  97
  98
c) x\97
d) \x97\x98

View Answer

Answer: c

Explanation: \x is an escape sequence that means the following 2 digits are a hexadecimal number encoding a character.

9. What will be the output of the following Python code?

1. >>>str1="helloworld"
2. >>>str1[::-1]

a) dlrowolleh
b) hello
c) world
d) helloworld

View Answer

Answer: a
Explanation: Execute in shell to verify.
10. What will be the output of the following Python code?
print(0xA + 0xB + 0xC)
a) 0xA0xB0xC
b) Error
c) 0x22
d) 33
View Answer

Answer: d
Explanation: 0xA and 0xB and 0xC are hexadecimal integer literals representing the decimal values 10, 11 and 12 respectively. There sum is 33.
1. What will be the output of the following Python code?

```
1.  class father:
2.      def __init__(self, param):
3.          self.o1 = param
4.
5.  class child(father):
6.      def __init__(self, param):
7.          self.o2 = param
8.
9.  >>>obj = child(22)
10. >>>print "%d %d" % (obj.o1, obj.o2)
```

a) None None
b) None 22
c) 22 None
d) Error is generated
View Answer

Answer: d
Explanation: self.o1 was never created.
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2. What will be the output of the following Python code?

```
1.  class tester:
2.      def __init__(self, id):
3.          self.id = str(id)
4.          id="224"
5.
6.  >>>temp = tester(12)
7.  >>>print(temp.id)
```

a) 224
b) Error
c) 12
d) None
View Answer

Answer: c

Explanation: Id in this case will be the attribute of the class.

3. What will be the output of the following Python code?

```
1.  >>>example = "snow world"
2.  >>>print("%s" % example[4:7])
```

a) wo
b) world
c) sn
d) rl

View Answer

Answer: a

Explanation: Execute in the shell and verify.

4. What will be the output of the following Python code?

```
1.  >>>example = "snow world"
2.  >>>example[3] = 's'
3.  >>>print example
```

a) snow
b) snow world
c) Error
d) snos world

View Answer

Answer: c

Explanation: Strings cannot be modified.

5. What will be the output of the following Python code?

```
1.  >>>max("what are you")
```

a) error
b) u
c) t
d) y

View Answer

Answer: d

Explanation: Max returns the character with the highest ascii value.

6. Given a string example="hello" what is the output of example.count('l')?

a) 2
b) 1
c) None
d) 0

View Answer

Answer: a

Explanation: l occurs twice in hello.

7. What will be the output of the following Python code?

```
1.  >>>example = "helle"
2.  >>>example.find("e")
```

a) Error
b) -1
c) 1
d) 0
View Answer

Answer: c

Explanation: Returns lowest index.

8. What will be the output of the following Python code?

```
1.  >>>example = "helle"
2.  >>>example.rfind("e")
```

a) -1
b) 4
c) 3
d) 1
View Answer

Answer: b

Explanation: Returns highest index.

9. What will be the output of the following Python code?

```
1.  >>>example="helloworld"
2.  >>>example[::-1].startswith("d")
```

a) dlrowolleh
b) True
c) -1
d) None
View Answer

Answer: b

Explanation: Starts with checks if the given string starts with the parameter that is passed.

10. To concatenate two strings to a third what statements are applicable?

a) s3 = s1 . s2
b) s3 = s1.add(s2)
c) s3 = s1.__add__(s2)
d) s3 = s1 * s2
View Answer

Answer: c

Explanation: __add__ is another method that can be used for concatenation.

1. What will be the output of the following Python statement?

```
1.  >>>chr(ord('A'))
```

a) A
b) B
c) a
d) Error
View Answer

Answer: a

Explanation: Execute in shell to verify.

2. What will be the output of the following Python statement?

```
1.  >>>print(chr(ord('b')+1))
```

a) a
b) b
c) c
d) A
View Answer

Answer: c

Explanation: Execute in the shell to verify.

3. Which of the following statement prints hello\example\test.txt?
a) print("hello\example\test.txt")
b) print("hello\\example\\test.txt")
c) print("hello\"example\"test.txt")
d) print("hello"\example"\test.txt")
View Answer

Answer: b

Explanation: \is used to indicate that the next \ is not an escape sequence.

4. Suppose s is "\t\tWorld\n", what is s.strip()?
a) \t\tWorld\n
b) \t\tWorld\n
c) \t\tWORLD\n
d) World
View Answer

Answer: d

Explanation: Execute help(string.strip) to find details.

5. The format function, when applied on a string returns _____
a) Error
b) int
c) bool
d) str
View Answer

Answer: d

Explanation: Format function returns a string.

6. What will be the output of the "hello" +1+2+3?
a) hello123
b) hello
c) Error
d) hello6
View Answer

Answer: c

Explanation: Cannot concatenate str and int objects.

7. What will be the output of the following Python code?

```
1.  >>>print("D", end = ' ')
```

2. >>>print("C", end = ' ')
3. >>>print("B", end = ' ')
4. >>>print("A", end = ' ')

a) DCBA
b) A, B, C, D
c) D C B A
d) D, C, B, A will be displayed on four lines

View Answer

Answer: c

Explanation: Execute in the shell.

8. What will be the output of the following Python statement?(python 3.xx)
   1. >>>print(format("Welcome", "10s"), end = '#')
   2. >>>print(format(111, "4d"), end = '#')
   3. >>>print(format(924.656, "3.2f"))

a)   Welcome# 111#924.66
b) Welcome#111#924.66
c) Welcome#111#.66
d) Welcome   # 111#924.66

View Answer

Answer: d

Explanation: Execute in the shell to verify.

9. What will be displayed by print(ord('b') – ord('a'))?
a) 0
b) 1
c) -1
d) 2

View Answer

Answer: b

Explanation: ASCII value of b is one more than a. Hence the output of this code is 98-97, which is equal to 1.

10. Say s="hello" what will be the return value of type(s)?
a) int
b) bool
c) str
d) String

View Answer

Answer: c

Explanation: str is used to represent strings in python.

1. What is "Hello".replace("l", "e")?
a) Heeeo
b) Heelo
c) Heleo
d) None

View Answer

Answer: a

Explanation: Execute in shell to verify.

2. To retrieve the character at index 3 from string s="Hello" what command do we execute (multiple answers allowed)?

a) s[]
b) s.getitem(3)
c) s.__getitem__(3)
d) s.getItem(3)

View Answer

Answer: c

Explanation: __getitem(..) can be used to get character at index specified as parameter.

3. To return the length of string s what command do we execute?

a) s.__len__()
b) len(s)
c) size(s)
d) s.size()

View Answer

Answer: a

Explanation: Execute in shell to verify.

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4. If a class defines the __str__(self) method, for an object obj for the class, you can use which command to invoke the __str__ method.

a) obj.__str__()
b) str(obj)
c) print obj
d) all of the mentioned

View Answer

Answer: d

Explanation: Execute in shell to verify.

5. To check whether string s1 contains another string s2, use _____

a) s1.__contains__(s2)
b) s2 in s1
c) s1.contains(s2)
d) si.in(s2)

View Answer

Answer: a

Explanation: s2 in s1 works in the same way as calling the special function __contains__ .

6. Suppose i is 5 and j is 4, i + j is same as _____

a) i.__add(j)
b) i.__add__(j)
c) i.__Add(j)
d) i.__ADD(j)

View Answer

Answer: b

Explanation: Execute in shell to verify.

7. What will be the output of the following Python code?

```
1.   class Count:
2.       def __init__(self, count = 0):
3.           self.__count = count
4.
5.   c1 = Count(2)
6.   c2 = Count(2)
7.   print(id(c1) == id(c2), end = " ")
8.
9.   s1 = "Good"
10.  s2 = "Good"
11.  print(id(s1) == id(s2))
```

a) True False
b) True True
c) False True
d) False False

View Answer

Answer: c

Explanation: Execute in the shell objects cannot have same id, however in the case of strings its different.

8. What will be the output of the following Python code?

```
1.   class Name:
2.       def __init__(self, firstName, mi, lastName):
3.           self.firstName = firstName
4.           self.mi = mi
5.           self.lastName = lastName
6.
7.   firstName = "John"
8.   name = Name(firstName, 'F', "Smith")
9.   firstName = "Peter"
10.  name.lastName = "Pan"
11.  print(name.firstName, name.lastName)
```

a) Peter Pan
b) John Pan
c) Peter Smith
d) John Smith

View Answer

Answer: b

Explanation: Execute in the shell to verify.

9. What function do you use to read a string?

a) input("Enter a string")
b) eval(input("Enter a string"))

c) enter("Enter a string")
d) eval(enter("Enter a string"))
View Answer
Answer: a
Explanation: Execute in shell to verify.
10. Suppose x is 345.3546, what is format(x, "10.3f") (_ indicates space).
a) __345.355
b) ___345.355
c) ____345.355
d) _____345.354
View Answer
Answer: b
Explanation: Execute in the shell to verify.
1. What will be the output of the following Python code?
print("abc DEF".capitalize())
a) abc def
b) ABC DEF
c) Abc def
d) Abc Def
View Answer
Answer: c
Explanation: The first letter of the string is converted to uppercase and the others are converted to lowercase.
advertisement
2. What will be the output of the following Python code?
print("abc. DEF".capitalize())
a) abc. def
b) ABC. DEF
c) Abc. def
d) Abc. Def
View Answer
Answer: c
Explanation: The first letter of the string is converted to uppercase and the others are converted to lowercase.
3. What will be the output of the following Python code?
print("abcdef".center())
a) cd
b) abcdef
c) error
d) none of the mentioned
View Answer
Answer: c
Explanation: The function center() takes at least one parameter.
4. What will be the output of the following Python code?

print("abcdef".center(0))
a) cd
b) abcdef
c) error
d) none of the mentioned
View Answer

Answer: b
Explanation: The entire string is printed when the argument passed to center() is less than the length of the string.
5. What will be the output of the following Python code?
print('*', "abcdef".center(7), '*')
a) * abcdef *
b) * abcdef *
c) *abcdef *
d) * abcdef*
View Answer

Answer: b
Explanation: Padding is done towards the left-hand-side first when the final string is of odd length. Extra spaces are present since we haven't overridden the value of sep.
6. What will be the output of the following Python code?
print('*', "abcdef".center(7), '*', sep='')
a) * abcdef *
b) * abcdef *
c) *abcdef *
d) * abcdef*
View Answer

Answer: d
Explanation: Padding is done towards the left-hand-side first when the final string is of odd length.
7. What will be the output of the following Python code?
print('*', "abcde".center(6), '*', sep='')
a) * abcde *
b) * abcde *
c) *abcde *
d) * abcde*
View Answer

Answer: c
Explanation: Padding is done towards the right-hand-side first when the final string is of even length.
8. What will be the output of the following Python code?
print("abcdef".center(7, 1))
a) 1abcdef
b) abcdef1
c) abcdef

d) error

View Answer

Answer: d

Explanation: TypeError, the fill character must be a character, not an int.

9. What will be the output of the following Python code?

print("abcdef".center(7, '1'))

a) 1abcdef

b) abcdef1

c) abcdef

d) error

View Answer

Answer: a

Explanation: The character '1' is used for padding instead of a space.

10. What will be the output of the following Python code?

print("abcdef".center(10, '12'))

a) 12abcdef12

b) abcdef1212

c) 1212abcdef

d) error

View Answer

Answer: d

Explanation: The fill character must be exactly one character long.

1. What will be the output of the following Python code?

print("xyyzxyzxzxyy".count('yy'))

a) 2

b) 0

c) error

d) none of the mentioned

View Answer

Answer: a

Explanation: Counts the number of times the substring 'yy' is present in the given string.

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2. What will be the output of the following Python code?

print("xyyzxyzxzxyy".count('yy', 1))

a) 2

b) 0

c) 1

d) none of the mentioned

View Answer

Answer: a

Explanation: Counts the number of times the substring 'yy' is present in the given string, starting from position 1.

3. What will be the output of the following Python code?

print("xyyzxyzxzxyy".count('yy', 2))

a) 2

b) 0

c) 1

d) none of the mentioned

View Answer

Answer: c

Explanation: Counts the number of times the substring 'yy' is present in the given string, starting from position 2.

4. What will be the output of the following Python code?

print("xyyzxyzxzxyy".count('xyy', 0, 100))

a) 2

b) 0

c) 1

d) error

View Answer

Answer: a

Explanation: An error will not occur if the end value is greater than the length of the string itself.

5. What will be the output of the following Python code?

print("xyyzxyzxzxyy".count('xyy', 2, 11))

a) 2

b) 0

c) 1

d) error

View Answer

Answer: b

Explanation: Counts the number of times the substring 'xyy' is present in the given string, starting from position 2 and ending at position 11.

6. What will be the output of the following Python code?

print("xyyzxyzxzxyy".count('xyy', -10, -1))

a) 2

b) 0

c) 1

d) error

View Answer

Answer: b

Explanation: Counts the number of times the substring 'xyy' is present in the given string, starting from position 2 and ending at position 11.

7. What will be the output of the following Python code?

print('abc'.encode())

a) abc

b) 'abc'

c) b'abc'

d) h'abc'
View Answer
Answer: c
Explanation: A bytes object is returned by encode.
8. What is the default value of encoding in encode()?
a) ascii
b) qwerty
c) utf-8
d) utf-16
View Answer
Answer: c
Explanation: The default value of encoding is utf-8.
9. What will be the output of the following Python code?
print("xyyzxyzxzxyy".endswith("xyy"))
a) 1
b) True
c) 3
d) 2
View Answer
Answer: b
Explanation: The function returns True if the given string ends with the specified substring.
10. What will be the output of the following Python code?
print("xyyzxyzxzxyy".endswith("xyy", 0, 2))
a) 0
b) 1
c) True
d) False
View Answer
Answer: d
Explanation: The function returns False if the given string does not end with the specified substring.
1. What will be the output of the following Python code?
print("ab\tcd\tef".expandtabs())
ef   cd   a) ab
b) abcdef
c) ab\tcd\tef
ef   cd   d) ab
View Answer
Answer: a
Explanation: Each \t is converted to 8 blank spaces by default.
advertisement
2. What will be the output of the following Python code?
print("ab\tcd\tef".expandtabs(4))

ef   cd   a) ab

b) abcdef

c) ab\tcd\tef

ef   cd   d) ab

View Answer

Answer: d

Explanation: Each \t is converted to 4 blank spaces.

3. What will be the output of the following Python code?

print("ab**\t**cd**\t**ef".expandtabs('+'))

a) ab+cd+ef

b) ab++++++++cd++++++++ef

ef   cd   c) ab

d) none of the mentioned

View Answer

Answer: d

Explanation: TypeError, an integer should be passed as an argument.

4. What will be the output of the following Python code?

print("abcdef".find("cd") == "cd" **in** "abcdef")

a) True

b) False

c) Error

d) None of the mentioned

View Answer

Answer: b

Explanation: The function find() returns the position of the sunstring in the given string whereas the in keyword returns a value of Boolean type.

5. What will be the output of the following Python code?

print("abcdef".find("cd"))

a) True

b) 2

c) 3

d) None of the mentioned

View Answer

Answer: b

Explanation: The first position in the given string at which the substring can be found is returned.

6. What will be the output of the following Python code?

print("ccdcddcd".find("c"))

a) 4

b) 0

c) Error

d) True

View Answer

Answer: b
Explanation: The first position in the given string at which the substring can be found is returned.

7. What will be the output of the following Python code?

```python
print("Hello {0} and {1}".format('foo', 'bin'))
```

a) Hello foo and bin
b) Hello {0} and {1} foo bin
c) Error
d) Hello 0 and 1
View Answer

Answer: a
Explanation: The numbers 0 and 1 represent the position at which the strings are present.

8. What will be the output of the following Python code?

```python
print("Hello {1} and {0}".format('bin', 'foo'))
```

a) Hello foo and bin
b) Hello bin and foo
c) Error
d) None of the mentioned
View Answer

Answer: a
Explanation: The numbers 0 and 1 represent the position at which the strings are present.

9. What will be the output of the following Python code?

```python
print("Hello {} and {}".format('foo', 'bin'))
```

a) Hello foo and bin
b) Hello {} and {}
c) Error
d) Hello and
View Answer

Answer: a
Explanation: It is the same as Hello {0} and {1}.

10. What will be the output of the following Python code?

```python
print("Hello {name1} and {name2}".format('foo', 'bin'))
```

a) Hello foo and bin
b) Hello {name1} and {name2}
c) Error
d) Hello and
View Answer

Answer: c
Explanation: The arguments passed to the function format aren't keyword arguments.

1. What will be the output of the following Python code?

```python
print("Hello {name1} and {name2}".format(name1='foo', name2='bin'))
```

a) Hello foo and bin
b) Hello {name1} and {name2}
c) Error

d) Hello and

Answer: a

Explanation: The arguments are accessed by their names.

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2. What will be the output of the following Python code?

print("Hello {0!r} and {0!s}".format('foo', 'bin'))

a) Hello foo and foo

b) Hello 'foo' and foo

c) Hello foo and 'bin'

d) Error

Answer: b

Explanation: !r causes the characters ' or " to be printed as well.

3. What will be the output of the following Python code?

print("Hello {0} and {1}".format(('foo', 'bin')))

a) Hello foo and bin

b) Hello ('foo', 'bin') and ('foo', 'bin')

c) Error

d) None of the mentioned

Answer: c

Explanation: IndexError, the tuple index is out of range.

4. What will be the output of the following Python code?

print("Hello {0[0]} and {0[1]}".format(('foo', 'bin')))

a) Hello foo and bin

b) Hello ('foo', 'bin') and ('foo', 'bin')

c) Error

d) None of the mentioned

Answer: a

Explanation: The elements of the tuple are accessed by their indices.

5. What will be the output of the following Python code snippet?

print('The sum of {0} and {1} is {2}'.format(2, 10, 12))

a) The sum of 2 and 10 is 12

b) Error

c) The sum of 0 and 1 is 2

d) None of the mentioned

Answer: a

Explanation: The arguments passed to the function format can be integers also.

6. What will be the output of the following Python code snippet?

print('The sum of {0:b} and {1:x} is {2:o}'.format(2, 10, 12))

a) The sum of 2 and 10 is 12
b) The sum of 10 and a is 14
c) The sum of 10 and a is c
d) Error
View Answer

Answer: b

Explanation: 2 is converted to binary, 10 to hexadecimal and 12 to octal.

7. What will be the output of the following Python code snippet?

print('{:,}'.format(1112223334))

a) 1,112,223,334
b) 111,222,333,4
c) 1112223334
d) Error
View Answer

Answer: a

Explanation: A comma is added after every third digit from the right.

8. What will be the output of the following Python code snippet?

print('{:,}'.format('1112223334'))

a) 1,112,223,334
b) 111,222,333,4
c) 1112223334
d) Error
View Answer

Answer: d

Explanation: An integer is expected.

9. What will be the output of the following Python code snippet?

print('{:$}'.format(1112223334))

a) 1,112,223,334
b) 111,222,333,4
c) 1112223334
d) Error
View Answer

Answer: d

Explanation: $ is an invalid format code.

10. What will be the output of the following Python code snippet?

print('{:#}'.format(1112223334))

a) 1,112,223,334
b) 111,222,333,4
c) 1112223334
d) Error
View Answer

Answer: c

Explanation: The number is printed as it is.

1. What will be the output of the following Python code?

print("Hello {name1} and {name2}".format(name1='foo', name2='bin'))
a) Hello foo and bin
b) Hello {name1} and {name2}
c) Error
d) Hello and
View Answer

Answer: a
Explanation: The arguments are accessed by their names.
advertisement
2. What will be the output of the following Python code?
print("Hello {0!r} and {0!s}".format('foo', 'bin'))
a) Hello foo and foo
b) Hello 'foo' and foo
c) Hello foo and 'bin'
d) Error
View Answer

Answer: b
Explanation: !r causes the characters ' or " to be printed as well.
3. What will be the output of the following Python code?
print("Hello {0} and {1}".format(('foo', 'bin')))
a) Hello foo and bin
b) Hello ('foo', 'bin') and ('foo', 'bin')
c) Error
d) None of the mentioned
View Answer

Answer: c
Explanation: IndexError, the tuple index is out of range.
4. What will be the output of the following Python code?
print("Hello {0[0]} and {0[1]}".format(('foo', 'bin')))
a) Hello foo and bin
b) Hello ('foo', 'bin') and ('foo', 'bin')
c) Error
d) None of the mentioned
View Answer

Answer: a
Explanation: The elements of the tuple are accessed by their indices.
5. What will be the output of the following Python code snippet?
print('The sum of {0} and {1} is {2}'.format(2, 10, 12))
a) The sum of 2 and 10 is 12
b) Error
c) The sum of 0 and 1 is 2
d) None of the mentioned
View Answer

Answer: a

Explanation: The arguments passed to the function format can be integers also.

6. What will be the output of the following Python code snippet?

print('The sum of {0:b} and {1:x} is {2:o}'.format(2, 10, 12))

a) The sum of 2 and 10 is 12
b) The sum of 10 and a is 14
c) The sum of 10 and a is c
d) Error

View Answer

Answer: b

Explanation: 2 is converted to binary, 10 to hexadecimal and 12 to octal.

7. What will be the output of the following Python code snippet?

print('{:,}'.format(1112223334))

a) 1,112,223,334
b) 111,222,333,4
c) 1112223334
d) Error

View Answer

Answer: a

Explanation: A comma is added after every third digit from the right.

8. What will be the output of the following Python code snippet?

print('{:,}'.format('1112223334'))

a) 1,112,223,334
b) 111,222,333,4
c) 1112223334
d) Error

View Answer

Answer: d

Explanation: An integer is expected.

9. What will be the output of the following Python code snippet?

print('{:$}'.format(1112223334))

a) 1,112,223,334
b) 111,222,333,4
c) 1112223334
d) Error

View Answer

Answer: d

Explanation: $ is an invalid format code.

10. What will be the output of the following Python code snippet?

print('{:#}'.format(1112223334))

a) 1,112,223,334
b) 111,222,333,4
c) 1112223334

d) Error

View Answer

Answer: c

Explanation: The number is printed as it is.

1. What will be the output of the following Python code snippet?

print('for'.isidentifier())

a) True

b) False

c) None

d) Error

View Answer

Answer: a

Explanation: Even keywords are considered as valid identifiers.

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2. What will be the output of the following Python code snippet?

print('abc'.islower())

a) True

b) False

c) None

d) Error

View Answer

Answer: a

Explanation: There are no uppercase letters.

3. What will be the output of the following Python code snippet?

print('a@ 1,'.islower())

a) True

b) False

c) None

d) Error

View Answer

Answer: a

Explanation: There are no uppercase letters.

4. What will be the output of the following Python code snippet?

print('11'.isnumeric())

a) True

b) False

c) None

d) Error

View Answer

Answer: a

Explanation: All the character are numeric.

5. What will be the output of the following Python code snippet?

print('1.1'.isnumeric())

a) True
b) False
c) None
d) Error
View Answer

Answer: b
Explanation: The character . is not a numeric character.
6. What will be the output of the following Python code snippet?
print('1@ a'.isprintable())
a) True
b) False
c) None
d) Error
View Answer

Answer: a
Explanation: All those characters are printable.
7. What will be the output of the following Python code snippet?
print('''''.isspace())
a) True
b) False
c) None
d) Error
View Answer

Answer: b
Explanation: None.
8. What will be the output of the following Python code snippet?
print('\t'.isspace())
a) True
b) False
c) None
d) Error
View Answer

Answer: a
Explanation: Tab Spaces are considered as spaces.
9. What will be the output of the following Python code snippet?
print('HelloWorld'.istitle())
a) True
b) False
c) None
d) Error
View Answer

Answer: b
Explanation: The letter W is uppercased.
10. What will be the output of the following Python code snippet?

print('Hello World'.istitle())
a) True
b) False
c) None
d) Error
View Answer

Answer: a
Explanation: It is in title form.
1. What will be the output of the following Python code?
print('Hello!2@#World'.istitle())
a) True
b) False
c) None
d) error
View Answer

Answer: a
Explanation: It is in the form of a title.
advertisement
2. What will be the output of the following Python code?
print('1Rn@'.lower())
a) n
b) 1rn@
c) rn
d) r
View Answer

Answer: b
Explanation: Uppercase letters are converted to lowercase. The other characters are left unchanged.
3. What will be the output of the following Python code?
print('''
 \tfoo'''.lstrip())
a) \tfoo
b) foo
foo   c)
d) none of the mentioned
View Answer

Answer: b
Explanation: All leading whitespace is removed.
4. What will be the output of the following Python code?
print('xyyzxxyxyy'.lstrip('xyy'))
a) error
b) zxxyxyy
c) z

d) zxxy

View Answer

Answer: b

Explanation: The leading characters containing xyy are removed.

5. What will be the output of the following Python code?

print('xyxxyyzxxy'.lstrip('xyy'))

a) zxxy

b) xyxxyyzxxy

c) xyxzxxy

d) none of the mentioned

View Answer

Answer: a

Explanation: All combinations of the characters passed as an argument are removed from the left hand side.

6. What will be the output of the following Python code?

print('cba'.maketrans('abc', '123'))

a) {97: 49, 98: 50, 99: 51}

b) {65: 49, 66: 50, 67: 51}

c) 321

d) 123

View Answer

Answer: a

Explanation: A translation table is returned by maketrans.

7. What will be the output of the following Python code?

print('a'.maketrans('ABC', '123'))

a) {97: 49, 98: 50, 99: 51}

b) {65: 49, 66: 50, 67: 51}

c) {97: 49}

d) 1

View Answer

Answer: b

Explanation: maketrans() is a static method so it's behaviour does not depend on the object from which it is being called.

8. What will be the output of the following Python code?

print('abcdef'.partition('cd'))

a) ('ab', 'ef')

b) ('abef')

c) ('ab', 'cd', 'ef')

d) 2

View Answer

Answer: c

Explanation: The string is split into three parts by partition.

9. What will be the output of the following Python code?

print('abcdefcdgh'.partition('cd'))

a) ('ab', 'cd', 'ef', 'cd', 'gh')
b) ('ab', 'cd', 'efcdgh')
c) ('abcdef', 'cd', 'gh')
d) error
View Answer

Answer: b
Explanation: The string is partitioned at the point where the separator first appears.
10. What will be the output of the following Python code?
print('abcd'.partition('cd'))
a) ('ab', 'cd', '')
b) ('ab', 'cd')
c) error
d) none of the mentioned
View Answer

Answer: a
Explanation: The last item is a null string.
1. What will be the output of the following Python code snippet?
print('cd'.partition('cd'))
a) ('cd')
b) ('')
c) ('cd', '', '')
d) ('', 'cd', '')
View Answer

Answer: d
Explanation: The entire string has been passed as the separator hence the first and the last item of the tuple returned are null strings.
advertisement
2. What will be the output of the following Python code snippet?
print('abef'.partition('cd'))
a) ('abef')
b) ('abef', 'cd', '')
c) ('abef', '', '')
d) error
View Answer

Answer: c
Explanation: The separator is not present in the string hence the second and the third elements of the tuple are null strings.
3. What will be the output of the following Python code snippet?
print('abcdef12'.replace('cd', '12'))
a) ab12ef12
b) abcdef12
c) ab12efcd
d) none of the mentioned
View Answer

Answer: a

Explanation: All occurrences of the first substring are replaced by the second substring.

4. What will be the output of the following Python code snippet?

print('abef'.replace('cd', '12'))

a) abef
b) 12
c) error
d) none of the mentioned

View Answer

Answer: a

Explanation: The first substring is not present in the given string and hence nothing is replaced.

5. What will be the output of the following Python code snippet?

print('abcefd'.replace('cd', '12'))

a) ab1ef2
b) abcefd
c) ab1efd
d) ab12ed2

View Answer

Answer: b

Explanation: The first substring is not present in the given string and hence nothing is replaced.

6. What will be the output of the following Python code snippet?

print('xyyxyyxyxyxxy'.replace('xy', '12', 0))

a) xyyxyyxyxyxxy
b) 12y12y1212x12
c) 12yxyyxyxyxxy
d) xyyxyyxyxyx12

View Answer

Answer: a

Explanation: The first 0 occurrences of the given substring are replaced.

7. What will be the output of the following Python code snippet?

print('xyyxyyxyxyxxy'.replace('xy', '12', 100))

a) xyyxyyxyxyxxy
b) 12y12y1212x12
c) none of the mentioned
d) error

View Answer

Answer: b

Explanation: The first 100 occurrences of the given substring are replaced.

8. What will be the output of the following Python code snippet?

print('abcdefcdghcd'.split('cd'))

a) ['ab', 'ef', 'gh']
b) ['ab', 'ef', 'gh', '']
c) ('ab', 'ef', 'gh')

d) ('ab', 'ef', 'gh', '')
View Answer

Answer: b

Explanation: The given string is split and a list of substrings is returned.

9. What will be the output of the following Python code snippet?

print('abcdefcdghcd'.split('cd', 0))

a) ['abcdefcdghcd']
b) 'abcdefcdghcd'
c) error
d) none of the mentioned
View Answer

Answer: a

Explanation: The given string is split at 0 occurances of the specified substring.

10. What will be the output of the following Python code snippet?

print('abcdefcdghcd'.split('cd', -1))

a) ['ab', 'ef', 'gh']
b) ['ab', 'ef', 'gh', '']
c) ('ab', 'ef', 'gh')
d) ('ab', 'ef', 'gh', '')
View Answer

Answer: b

Explanation: Calling the function with a negative value for maxsplit is the same as calling it without any maxsplit specified. The string will be split into as many substring s as possible.

1. What will be the output of the following Python code snippet?

print('abcdefcdghcd'.split('cd', 2))

a) ['ab', 'ef', 'ghcd']
b) ['ab', 'efcdghcd']
c) ['abcdef', 'ghcd']
d) none of the mentioned
View Answer

Answer: a

Explanation: The string is split into a maximum of maxsplit+1 substrings.

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2. What will be the output of the following Python code snippet?

print('ab**\n**cd**\n**ef'.splitlines())

a) ['ab', 'cd', 'ef']
b) ['ab\n', 'cd\n', 'ef\n']
c) ['ab\n', 'cd\n', 'ef']
d) ['ab', 'cd', 'ef\n']
View Answer

Answer: a

Explanation: It is similar to calling split('\n').

3. What will be the output of the following Python code snippet?

print('Ab!2'.swapcase())

a) AB!@
b) ab12
c) aB!2
d) aB1@
View Answer

Answer: c

Explanation: Lowercase letters are converted to uppercase and vice-versa.

4. What will be the output of the following Python code snippet?

print('ab cd ef'.title())

a) Ab cd ef
b) Ab cd eF
c) Ab Cd Ef
d) None of the mentioned
View Answer

Answer: c

Explanation: The first letter of every word is capitalized.

5. What will be the output of the following Python code snippet?

print('ab cd-ef'.title())

a) Ab cd-ef
b) Ab Cd-ef
c) Ab Cd-Ef
d) None of the mentioned
View Answer

Answer: c

Explanation: The first letter of every word is capitalized. Special symbols terminate a word.

6. What will be the output of the following Python code snippet?

print('abcd'.translate('a'.maketrans('abc', 'bcd')))

a) bcde
b) abcd
c) error
d) bcdd
View Answer

Answer: d

Explanation: The output is bcdd since no translation is provided for d.

7. What will be the output of the following Python code snippet?

print('abcd'.translate({97: 98, 98: 99, 99: 100}))

a) bcde
b) abcd
c) error
d) none of the mentioned
View Answer

Answer: d

Explanation: The output is bcdd since no translation is provided for d.

8. What will be the output of the following Python code snippet?

print('abcd'.translate({'a': '1', 'b': '2', 'c': '3', 'd': '4'}))
a) abcd
b) 1234
c) error
d) none of the mentioned
View Answer

Answer: a

Explanation: The function translate expects a dictionary of integers. Use maketrans() instead of doing the above.

9. What will be the output of the following Python code snippet?

print('ab'.zfill(5))
a) 000ab
b) 00ab0
c) 0ab00
d) ab000
View Answer

Answer: a

Explanation: The string is padded with zeros on the left hand side. It is useful for formatting numbers.

10. What will be the output of the following Python code snippet?

print('+99'.zfill(5))
a) 00+99
b) 00099
c) +0099
d) +++99
View Answer

Answer: c

Explanation: zeros are filled in between the first sign and the rest of the string.

1. Which of the following commands will create a list?
a) list1 = list()
b) list1 = []
c) list1 = list([1, 2, 3])
d) all of the mentioned
View Answer

Answer: d

Explanation: Execute in the shell to verify

2. What is the output when we execute list("hello")?
a) ['h', 'e', 'l', 'l', 'o']
b) ['hello']
c) ['llo']
d) ['olleh']
View Answer

Answer: a

Explanation: Execute in the shell to verify.

3. Suppose listExample is ['h','e','l','l','o'], what is len(listExample)?
a) 5
b) 4
c) None
d) Error
View Answer

Answer: a
Explanation: Execute in the shell and verify.
advertisement
4. Suppose list1 is [2445,133,12454,123], what is max(list1)?
a) 2445
b) 133
c) 12454
d) 123
View Answer

Answer: c
Explanation: Max returns the maximum element in the list.
5. Suppose list1 is [3, 5, 25, 1, 3], what is min(list1)?
a) 3
b) 5
c) 25
d) 1
View Answer

Answer: d
Explanation: Min returns the minimum element in the list.
6. Suppose list1 is [1, 5, 9], what is sum(list1)?
a) 1
b) 9
c) 15
d) Error
View Answer

Answer: c
Explanation: Sum returns the sum of all elements in the list.
7. To shuffle the list(say list1) what function do we use?
a) list1.shuffle()
b) shuffle(list1)
c) random.shuffle(list1)
d) random.shuffleList(list1)
View Answer

Answer: c
Explanation: Execute in the shell to verify.
8. Suppose list1 is [4, 2, 2, 4, 5, 2, 1, 0], Which of the following is correct syntax for slicing operation?
a) print(list1[0])

b) print(list1[:2])

c) print(list1[:-2])

d) all of the mentioned

View Answer

Answer: d

Explanation: Slicing is allowed in lists just as in the case of strings.

9. Suppose list1 is [2, 33, 222, 14, 25], What is list1[-1]?

a) Error

b) None

c) 25

d) 2

View Answer

Answer: c

Explanation: -1 corresponds to the last index in the list.

10. Suppose list1 is [2, 33, 222, 14, 25], What is list1[:-1]?

a) [2, 33, 222, 14]

b) Error

c) 25

d) [25, 14, 222, 33, 2]

View Answer

Answer: a

Explanation: Execute in the shell to verify.

1. What will be the output of the following Python code?

```
1.  >>>names = ['Amir', 'Bear', 'Charlton', 'Daman']
2.  >>>print(names[-1][-1])
```

a) A

b) Daman

c) Error

d) n

View Answer

Answer: d

Explanation: Execute in the shell to verify.

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2. What will be the output of the following Python code?

```
1.  names1 = ['Amir', 'Bear', 'Charlton', 'Daman']
2.  names2 = names1
3.  names3 = names1[:]
4.
5.  names2[0] = 'Alice'
6.  names3[1] = 'Bob'
7.
8.  sum = 0
9.  for ls in (names1, names2, names3):
10.     if ls[0] == 'Alice':
```

```
11.     sum += 1
12.   if ls[1] == 'Bob':
13.     sum += 10
14.
15. print sum
```
a) 11
b) 12
c) 21
d) 22
View Answer
Answer: b
Explanation: When assigning names1 to names2, we create a second reference to the same list. Changes to names2 affect names1. When assigning the slice of all elements in names1 to names3, we are creating a full copy of names1 which can be modified independently.
3. Suppose list1 is [1, 3, 2], What is list1 * 2?
a) [2, 6, 4]
b) [1, 3, 2, 1, 3]
c) [1, 3, 2, 1, 3, 2]
d) [1, 3, 2, 3, 2, 1]
View Answer
Answer: c
Explanation: Execute in the shell and verify.
4. Suppose list1 = [0.5 * x for x in range(0, 4)], list1 is:
a) [0, 1, 2, 3]
b) [0, 1, 2, 3, 4]
c) [0.0, 0.5, 1.0, 1.5]
d) [0.0, 0.5, 1.0, 1.5, 2.0]
View Answer
Answer: c
Explanation: Execute in the shell to verify.
5. What will be the output of the following Python code?
```
1.  >>>list1 = [11, 2, 23]
2.  >>>list2 = [11, 2, 2]
3.  >>>list1 < list2 is
```
a) True
b) False
c) Error
d) None
View Answer
Answer: b
Explanation: Elements are compared one by one.
6. To add a new element to a list we use which command?
a) list1.add(5)
b) list1.append(5)

c) list1.addLast(5)
d) list1.addEnd(5)
View Answer
Answer: b
Explanation: We use the function append to add an element to the list.
7. To insert 5 to the third position in list1, we use which command?
a) list1.insert(3, 5)
b) list1.insert(2, 5)
c) list1.add(3, 5)
d) list1.append(3, 5)
View Answer
8. To remove string "hello" from list1, we use which command?
a) list1.remove("hello")
b) list1.remove(hello)
c) list1.removeAll("hello")
d) list1.removeOne("hello")
View Answer
Answer: a
Explanation: Execute in the shell to verify.
9. Suppose list1 is [3, 4, 5, 20, 5], what is list1.index(5)?
a) 0
b) 1
c) 4
d) 2
View Answer
Answer: d
Explanation: Execute help(list.index) to get details.
10. Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1.count(5)?
a) 0
b) 4
c) 1
d) 2
View Answer
Answer: d
Explanation: Execute in the shell to verify.
1. Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after list1.reverse()?
a) [3, 4, 5, 20, 5, 25, 1, 3]
b) [1, 3, 3, 4, 5, 5, 20, 25]
c) [25, 20, 5, 5, 4, 3, 3, 1]
d) [3, 1, 25, 5, 20, 5, 4, 3]
View Answer
Answer: d
Explanation: Execute in the shell to verify.

2. Suppose listExample is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after listExample.extend([34, 5])?
a) [3, 4, 5, 20, 5, 25, 1, 3, 34, 5]
b) [1, 3, 3, 4, 5, 5, 20, 25, 34, 5]
c) [25, 20, 5, 5, 4, 3, 3, 1, 34, 5]
d) [1, 3, 4, 5, 20, 5, 25, 3, 34, 5]
View Answer

Answer: a

Explanation: Execute in the shell to verify.

3. Suppose listExample is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after listExample.pop(1)?
a) [3, 4, 5, 20, 5, 25, 1, 3]
b) [1, 3, 3, 4, 5, 5, 20, 25]
c) [3, 5, 20, 5, 25, 1, 3]
d) [1, 3, 4, 5, 20, 5, 25]
View Answer

Answer: c

Explanation: pop() removes the element at the position specified in the parameter.
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4. Suppose listExample is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after listExample.pop()?
a) [3, 4, 5, 20, 5, 25, 1]
b) [1, 3, 3, 4, 5, 5, 20, 25]
c) [3, 5, 20, 5, 25, 1, 3]
d) [1, 3, 4, 5, 20, 5, 25]
View Answer

Answer: a

Explanation: pop() by default will remove the last element.

5. What will be the output of the following Python code?
```
1.   >>>"Welcome to Python".split()
```
a) ["Welcome", "to", "Python"]
b) ("Welcome", "to", "Python")
c) {"Welcome", "to", "Python"}
d) "Welcome", "to", "Python"
View Answer

Answer: a

Explanation: split() function returns the elements in a list.

6. What will be the output of the following Python code?
```
1.   >>>list("a#b#c#d".split('#'))
```
a) ['a', 'b', 'c', 'd']
b) ['a b c d']
c) ['a#b#c#d']
d) ['abcd']
View Answer

Answer: a

Explanation: Execute in the shell to verify.

7. What will be the output of the following Python code?

```
1. myList = [1, 5, 5, 5, 5, 1]
2. max = myList[0]
3. indexOfMax = 0
4. for i in range(1, len(myList)):
5.     if myList[i] > max:
6.         max = myList[i]
7.         indexOfMax = i
8.
9. >>>print(indexOfMax)
```
a) 1
b) 2
c) 3
d) 4

View Answer

Answer: a

Explanation: First time the highest number is encountered is at index 1.

8. What will be the output of the following Python code?
```
1. myList = [1, 2, 3, 4, 5, 6]
2. for i in range(1, 6):
3.     myList[i - 1] = myList[i]
4.
5. for i in range(0, 6):
6.     print(myList[i], end = " ")
```
a) 2 3 4 5 6 1
b) 6 1 2 3 4 5
c) 2 3 4 5 6 6
d) 1 1 2 3 4 5

View Answer

Answer: c

Explanation: Execute in the shell to verify.

9. What will be the output of the following Python code?
```
1. >>>list1 = [1, 3]
2. >>>list2 = list1
3. >>>list1[0] = 4
4. >>>print(list2)
```
a) [1, 3]
b) [4, 3]
c) [1, 4]
d) [1, 3, 4]

View Answer

Answer: b

Explanation: Lists should be copied by executing [:] operation.

10. What will be the output of the following Python code?
```
1. def f(values):
```

```
2.    values[0] = 44
3.
4.  v = [1, 2, 3]
5.  f(v)
6.  print(v)
```
a) [1, 44]
b) [1, 2, 3, 44]
c) [44, 2, 3]
d) [1, 2, 3]
View Answer
Answer: c
Explanation: Execute in the shell to verify.
1. What will be the output of the following Python code?
```
1.  def f(i, values = []):
2.    values.append(i)
3.    return values
4.
5.  f(1)
6.  f(2)
7.  v = f(3)
8.  print(v)
```
a) [1] [2] [3]
b) [1] [1, 2] [1, 2, 3]
c) [1, 2, 3]
d) 1 2 3
View Answer
Answer: c
Explanation: Execute in the shell to verify
advertisement
2. What will be the output of the following Python code?
```
1.  names1 = ['Amir', 'Bala', 'Chales']
2.
3.  if 'amir' in names1:
4.    print(1)
5.  else:
6.    print(2)
```
a) None
b) 1
c) 2
d) Error
View Answer
Answer: c
Explanation: Execute in the shell to verify.
3. What will be the output of the following Python code?

1. names1 = ['Amir', 'Bala', 'Charlie']
2. names2 = [name.lower() for name in names1]
3.
4. print(names2[2][0])

a) None
b) a
c) b
d) c

View Answer

Answer: d

Explanation: List Comprehension are a shorthand for creating new lists.

4. What will be the output of the following Python code?

1. numbers = [1, 2, 3, 4]
2.
3. numbers.append([5,6,7,8])
4.
5. print(len(numbers))

a) 4
b) 5
c) 8
d) 12

View Answer

Answer: b

Explanation: A list is passed in append so the length is 5.

5. To which of the following the "in" operator can be used to check if an item is in it?

a) Lists
b) Dictionary
c) Set
d) All of the mentioned

View Answer

Answer: d

Explanation: In can be used in all data structures.

6. What will be the output of the following Python code?

1. list1 = [1, 2, 3, 4]
2. list2 = [5, 6, 7, 8]
3.
4. print(len(list1 + list2))

a) 2
b) 4
c) 5
d) 8

View Answer

Answer: d

Explanation: + appends all the elements individually into a new list.

7. What will be the output of the following Python code?

```
1.  def addItem(listParam):
2.     listParam += [1]
3.
4.  mylist = [1, 2, 3, 4]
5.  addItem(mylist)
6.  print(len(mylist))
```

a) 1
b) 4
c) 5
d) 8
View Answer

Answer: c
Explanation: + will append the element to the list.

8. What will be the output of the following Python code?

```
1.  def increment_items(L, increment):
2.     i = 0
3.     while i < len(L):
4.         L[i] = L[i] + increment
5.         i = i + 1
6.
7.  values = [1, 2, 3]
8.  print(increment_items(values, 2))
9.  print(values)
```

a)
  None
  [3, 4, 5]
b)
  None
  [1, 2, 3]
c)
  [3, 4, 5]
  [1, 2, 3]
d)
  [3, 4, 5]
  None
View Answer

9. What will be the output of the following Python code?

```
1.  def example(L):
2.     ''' (list) -> list
3.     '''
4.     i = 0
5.     result = []
```

6.   while i < len(L):
7.   result.append(L[i])
8.   i = i + 3
9.   return result

a) Return a list containing every third item from L starting at index 0
b) Return an empty list
c) Return a list containing every third index from L starting at index 0
d) Return a list containing the items from L starting from index 0, omitting every third item

View Answer

Answer: a

Explanation: Run the code to get a better understanding with many arguments.

10. What will be the output of the following Python code?

1.   veggies = ['carrot', 'broccoli', 'potato', 'asparagus']
2.   veggies.insert(veggies.index('broccoli'), 'celery')
3.   print(veggies)

a) ['carrot', 'celery', 'broccoli', 'potato', 'asparagus'] Correct 1.00
b) ['carrot', 'celery', 'potato', 'asparagus']

c) ['carrot', 'broccoli', 'celery', 'potato', 'asparagus']

d) ['celery', 'carrot', 'broccoli', 'potato', 'asparagus']

View Answer

Answer: a

Explanation: Execute in the shell to verify.

1. What will be the output of the following Python code?

1.   >>>m = [[x, x + 1, x + 2] for x in range(0, 3)]

a) [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
b) [[0, 1, 2], [1, 2, 3], [2, 3, 4]]
c) [1, 2, 3, 4, 5, 6, 7, 8, 9]
d) [0, 1, 2, 1, 2, 3, 2, 3, 4]

View Answer

Answer: b

Explanation: Execute in the shell to verify.

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2. How many elements are in m?

1.   m = [[x, y] for x in range(0, 4) for y in range(0, 4)]

a) 8
b) 12
c) 16
d) 32

View Answer

Answer: c

Explanation: Execute in the shell to verify.

3. What will be the output of the following Python code?

```
1.  values = [[3, 4, 5, 1], [33, 6, 1, 2]]
2.
3.  v = values[0][0]
4.  for row in range(0, len(values)):
5.      for column in range(0, len(values[row])):
6.          if v < values[row][column]:
7.              v = values[row][column]
8.
9.  print(v)
```
a) 3
b) 5
c) 6
d) 33
View Answer
Answer: d
Explanation: Execute in the shell to verify.
4. What will be the output of the following Python code?
```
1.  values = [[3, 4, 5, 1], [33, 6, 1, 2]]
2.
3.  v = values[0][0]
4.  for lst in values:
5.      for element in lst:
6.          if v > element:
7.              v = element
8.
9.  print(v)
```
a) 1
b) 3
c) 5
d) 6
View Answer
Answer: a
Explanation: Execute in the shell to verify.
5. What will be the output of the following Python code?
```
1.  values = [[3, 4, 5, 1 ], [33, 6, 1, 2]]
2.
3.  for row in values:
4.      row.sort()
5.      for element in row:
6.          print(element, end = " ")
7.      print()
```
a) The program prints two rows 3 4 5 1 followed by 33 6 1 2
b) The program prints on row 3 4 5 1 33 6 1 2
c) The program prints two rows 3 4 5 1 followed by 33 6 1 2

d) The program prints two rows 1 3 4 5 followed by 1 2 6 33

Answer: d

Explanation: Execute in the shell to verify.

6. What will be the output of the following Python code?

```
1.  matrix = [[1, 2, 3, 4],
2.       [4, 5, 6, 7],
3.       [8, 9, 10, 11],
4.       [12, 13, 14, 15]]
5.
6.  for i in range(0, 4):
7.     print(matrix[i][1], end = " ")
```

a) 1 2 3 4

b) 4 5 6 7

c) 1 3 8 12

d) 2 5 9 13

Answer: d

Explanation: Execute in the shell to verify.

7. What will be the output of the following Python code?

```
1.  def m(list):
2.     v = list[0]
3.     for e in list:
4.        if v < e: v = e
5.     return v
6.
7.  values = [[3, 4, 5, 1], [33, 6, 1, 2]]
8.
9.  for row in values:
10.    print(m(row), end = " ")
```

a) 3 33

b) 1 1

c) 5 6

d) 5 33

Answer: d

Explanation: Execute in the shell to verify.

8. What will be the output of the following Python code?

```
1.  data = [[[1, 2], [3, 4]], [[5, 6], [7, 8]]]
2.
3.  print(data[1][0][0])
```

a) 1

b) 2

c) 4

d) 5
View Answer
Answer: d
Explanation: Execute in the shell to verify.
9. What will be the output of the following Python code?

```
1.   data = [[[1, 2], [3, 4]], [[5, 6], [7, 8]]]
2.
3.   def ttt(m):
4.       v = m[0][0]
5.
6.       for row in m:
7.           for element in row:
8.               if v < element: v = element
9.
10.      return v
11.
12. print(ttt(data[0]))
```

a) 1
b) 2
c) 4
d) 5
View Answer
Answer: c
Explanation: Execute in the shell to verify.
10. What will be the output of the following Python code?

```
1.   points = [[1, 2], [3, 1.5], [0.5, 0.5]]
2.   points.sort()
3.   print(points)
```

a) [[1, 2], [3, 1.5], [0.5, 0.5]]
b) [[3, 1.5], [1, 2], [0.5, 0.5]]
c) [[0.5, 0.5], [1, 2], [3, 1.5]]
d) [[0.5, 0.5], [3, 1.5], [1, 2]]
View Answer
Answer: c
Explanation: Execute in the shell to verify.
1. What will be the output of the following Python code?
a=[10,23,56,[78]]
b=list(a)
a[3][0]=95
a[1]=34
print(b)
a) [10,34,56,[95]]
b) [10,23,56,[78]]
c) [10,23,56,[95]]

d) [10,34,56,[78]]
View Answer
Answer: c
Explanation: The above copy is a type of shallow copy and only changes made in sublist is reflected in the copied list.
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2. What will be the output of the following Python code?
print(list(zip((1,2,3),('a'),('xxx','yyy'))))
print(list(zip((2,4),('b','c'),('yy','xx'))))
a)
[(1,2,3),('a'),('xxx','yyy')]
[(2,4),('b','c'),('yy','xx')]
b)
[(1, 'a', 'xxx'),(2,' ','yyy'),(3,' ',' ')]
[(2, 'b', 'yy'), (4, 'c', 'xx')]
c) Syntax error
d)
[(1, 'a', 'xxx')]
[(2, 'b', 'yy'), (4, 'c', 'xx')]
View Answer
Answer: d
Explanation: The zip function combines the individual attributes of the lists into a list of tuples.

3. What will be the output of the following Python code?
```
import copy
a=[10,23,56,[78]]
b=copy.deepcopy(a)
a[3][0]=95
a[1]=34
print(b)
```
a) [10,34,56,[95]]
b) [10,23,56,[78]]
c) [10,23,56,[95]]
d) [10,34,56,[78]]
View Answer
Answer: b
Explanation: The above copy is deepcopy. Any change made in the original list isn't reflected.
4. What will be the output of the following Python code?
```
s="a@b@c@d"
a=list(s.partition("@"))
print(a)
b=list(s.split("@",3))
print(b)
```

a)
['a','b','c','d']
['a','b','c','d']
b)
['a','@','b','@','c','@','d']
['a','b','c','d']
c)
['a','@','b@c@d']
['a','b','c','d']
d)
['a','@','b@c@d']
['a','@','b','@','c','@','d']
View Answer

Answer: c

Explanation: The partition function only splits for the first parameter along with the separator while split function splits for the number of times given in the second argument but without the separator.

5. What will be the output of the following Python code?
a=[1,2,3,4]
b=[sum(a[0:x+1]) **for** x **in** range(0,len(a))]
print(b)
a) 10
b) [1,3,5,7]
c) 4
d) [1,3,6,10]
View Answer

Answer: d

Explanation: The above code returns the cumulative sum of elements in a list.
6. What will be the output of the following Python code?
a="hello"
b=list((x.upper(),len(x)) **for** x **in** a)
print(b)
a) [('H', 1), ('E', 1), ('L', 1), ('L', 1), ('O', 1)]
b) [('HELLO', 5)]
c) [('H', 5), ('E', 5), ('L', 5), ('L', 5), ('O', 5)]
d) Syntax error
View Answer

Answer: a

Explanation: Variable x iterates over each letter in string a hence the length of each letter is 1.
7. What will be the output of the following Python code?
a=[1,2,3,4]
b=[sum(a[0:x+1]) **for** x **in** range(0,len(a))]

print(b)
a) 10
b) [1,3,5,7]
c) 4
d) [1,3,6,10]
View Answer
Answer: d
Explanation: The above code returns the cumulative sum of elements in a list.
8. What will be the output of the following Python code?
a=[[]]*3
a[1].append(7)
print(a)
a) Syntax error
b) [[7], [7], [7]]
c) [[7], [], []]
d) [[],7, [], []]
View Answer
Answer: b
Explanation: The first line of the code creates multiple reference copies of sublist. Hence when 7 is appended, it gets appended to all the sublists.
9. What will be the output of the following Python code?
b=[2,3,4,5]
a=list(filter(**lambda** x:x%2,b))
print(a)
a) [2,4]
b) [ ]
c) [3,5]
d) Invalid arguments for filter function
View Answer
Answer: c
Explanation: The filter function gives value from the list b for which the condition is true, that is, x%2==1.
10. What will be the output of the following Python code?
lst=[3,4,6,1,2]
lst[1:2]=[7,8]
print(lst)
a) [3, 7, 8, 6, 1, 2]
b) Syntax error
c) [3,[7,8],6,1,2]
d) [3,4,6,7,8]
View Answer
Answer: a
Explanation: In the piece of code, slice assignment has been implemented. The sliced list is replaced by the assigned elements in the list. Type in python shell to verify.

1. What will be the output of the following Python code?
```
a=[1,2,3]
b=a.append(4)
print(a)
print(b)
```
a)
[1,2,3,4]
[1,2,3,4]
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b)
[1, 2, 3, 4]
None
c) Syntax error
d)
[1,2,3]
[1,2,3,4]
View Answer

Answer: b
Explanation: Append function on lists doesn't return anything. Thus the value of b is None.

2. What will be the output of the following Python code?
```
>>> a=[14,52,7]
>>>> b=a.copy()
>>> b is a
```
a) True
b) False
View Answer

Answer: b
Explanation: List b is just a copy of the original list. Any copy made in list b will not be reflected in list a.

3. What will be the output of the following Python code?
```
a=[13,56,17]
a.append([87])
a.extend([45,67])
print(a)
```
a) [13, 56, 17, [87], 45, 67]
b) [13, 56, 17, 87, 45, 67]
c) [13, 56, 17, 87,[45, 67]]
d) [13, 56, 17, [87], [45, 67]]
View Answer

Answer: a
Explanation: The append function simply adds its arguments to the list as it is while extend function extends its arguments and later appends it.

4. What is the output of the following piece of code?

```
a=list((45,)*4)
print((45)*4)
print(a)
```

a)
180
[(45),(45),(45),(45)]
b)
(45,45,45,45)
[45,45,45,45]
c)
180
[45,45,45,45]
d) Syntax error
View Answer

Answer: c

Explanation: (45) is an int while (45,) is a tuple of one element. Thus when a tuple is multiplied, it created references of itself which is later converted to a list.

5. What will be the output of the following Python code?

```
lst=[[1,2],[3,4]]
print(sum(lst,[]))
```

a) [[3],[7]]
b) [1,2,3,4]
c) Error
d) [10]
View Answer

Answer: b

Explanation: The above piece of code is used for flattening lists.

6. What will be the output of the following Python code?

```
word1="Apple"
word2="Apple"
list1=[1,2,3]
list2=[1,2,3]
print(word1 is word2)
print(list1 is list2)
```

a)
True
True
b)
False
True
c)
False
False

d)
True
False
View Answer

Answer: d

Explanation: In the above case, both the lists are equivalent but not identical as they have different objects.

7. What will be the output of the following Python code?
```python
def unpack(a,b,c,d):
    print(a+d)
x = [1,2,3,4]
unpack(*x)
```
a) Error
b) [1,4]
c) [5]
d) 5
View Answer

Answer: d

Explanation: unpack(*x) unpacks the list into the separate variables. Now, a=1 and d=4. Thus 5 gets printed.

8. What will be the output of the following Python code?
```python
places = ['Bangalore', 'Mumbai', 'Delhi']
<br class="blank" />places1 = places
places2 = places[:]
<br class="blank" />places1[1]="Pune"
places2[2]="Hyderabad"
print(places)
```
a) ['Bangalore', 'Pune', 'Hyderabad']
b) ['Bangalore', 'Pune', 'Delhi']
c) ['Bangalore', 'Mumbai', 'Delhi']
d) ['Bangalore', 'Mumbai', 'Hyderabad']
View Answer

Answer: b

Explanation: places1 is an alias of the list places. Hence, any change made to places1 is reflected in places. places2 is a copy of the list places. Thus, any change made to places2 isn't reflected in places.

9. What will be the output of the following Python code?
```python
x=[[1],[2]]
print(" ".join(list(map(str,x))))
```
a) [1] [2]
b) [49] [50]
c) Syntax error

d) [[1]] [[2]]
View Answer

Answer: a

Explanation: The elements 1 and 2 are first put into separate lists and then combined with a space in between using the join attribute.

10. What will be the output of the following Python code?

```
a=165
b=sum(list(map(int,str(a))))
print(b)
```

a) 561
b) 5
c) 12
d) Syntax error
View Answer

Answer: c

Explanation: First, map converts the number to string and then places the individual digits in a list. Then, sum finds the sum of the digits in the list. The code basically finds the sum of digits in the number.

11. What will be the output of the following Python code?

```
a= [1, 2, 3, 4, 5]
for i in range(1, 5):
    a[i-1] = a[i]
for i in range(0, 5):
    print(a[i],end = " ")
```

a) 5 5 1 2 3
b) 5 1 2 3 4
c) 2 3 4 5 1
d) 2 3 4 5 5
View Answer

Answer: d

Explanation: The items having indexes from 1 to 4 are shifted forward by one index due to the first for-loop and the item of index four is printed again because of the second for-loop.

12. What will be the output of the following Python code?

```
def change(var, lst):
    var = 1
    lst[0] = 44
k = 3
a = [1, 2, 3]
change(k, a)
print(k)
print(a)
```

a)
3
[44, 2, 3]

b)
1
[1,2,3]
c)
3
[1,2,3]
d)
1
[44,2,3]
View Answer

Answer: a

Explanation: A list is mutable, hence it's value changes after function call. However, integer isn't mutable. Thus its value doesn't change.

13. What will be the output of the following Python code?
a = [1, 5, 7, 9, 9, 1]
<br **class**="blank" />b=a[0]
<br **class**="blank" />x= 0
for x **in** range(1, len(a)):
   if a[x] > b:
      b = a[x]
      b= x
print(b)
a) 5
b) 3
c) 4
d) 0
View Answer

Answer: c

Explanation: The above piece of code basically prints the index of the largest element in the list.

14. What will be the output of the following Python code?
a=["Apple","Ball","Cobra"]
<br **class**="blank" />a.sort(key=len)
print(a)
a) ['Apple', 'Ball', 'Cobra']
b) ['Ball', 'Apple', 'Cobra']
c) ['Cobra', 'Apple', 'Ball']
d) Invalid syntax for sort()
View Answer

Answer: b

Explanation: The syntax isn't invalid and the list is sorted according to the length of the strings in the list since key is given as len.

15. What will be the output of the following Python code?

```
num = ['One', 'Two', 'Three']
for i, x in enumerate(num):
    print('{}: {}'.format(i, x),end=" ")
```
a) 1: 2: 3:
b) Exception is thrown
c) One Two Three
d) 0: One 1: Two 2: Three
View Answer

Answer: d
Explanation: enumerate(iterator,start=0) is a built-in function which returns (0,lst[0]),(1,lst[1]) and so on where lst is a list(iterator).

1. What will be the output of the following Python code snippet?
```
k = [print(i) for i in my_string if i not in "aeiou"]
```
a) prints all the vowels in my_string
b) prints all the consonants in my_string
c) prints all characters of my_string that aren't vowels
d) prints only on executing print(k)
View Answer

Answer: c
Explanation: print(i) is executed if the given character is not a vowel.
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2. What is the output of print(k) in the following Python code snippet?
```
k = [print(i) for i in my_string if i not in "aeiou"]
print(k)
```
a) all characters of my_string that aren't vowels
b) a list of Nones
c) list of Trues
d) list of Falses
View Answer

Answer: b
Explanation: print() returns None.

3. What will be the output of the following Python code snippet?
```
my_string = "hello world"
k = [(i.upper(), len(i)) for i in my_string]
print(k)
```
a) [('HELLO', 5), ('WORLD', 5)]
b) [('H', 1), ('E', 1), ('L', 1), ('L', 1), ('O', 1), (' ', 1), ('W', 1), ('O', 1), ('R', 1), ('L', 1), ('D', 1)]
c) [('HELLO WORLD', 11)]
d) none of the mentioned
View Answer

Answer: b
Explanation: We are iterating over each letter in the string.

4. Which of the following is the correct expansion of list_1 = [expr(i) for i in list_0 if func(i)]?
a)

```
list_1 = []
for i in list_0:
   if func(i):
      list_1.append(i)
```
b)
```
for i in list_0:
   if func(i):
      list_1.append(expr(i))
```
c)
```
list_1 = []
for i in list_0:
   if func(i):
      list_1.append(expr(i))
```
d) none of the mentioned

View Answer

Answer: c

Explanation: We have to create an empty list, loop over the contents of the existing list and check if a condition is satisfied before performing some operation and adding it to the new list.

5. What will be the output of the following Python code snippet?

x = [i**+1 **for** i **in** range(3)]; **print**(x);

a) [0, 1, 2]

b) [1, 2, 5]

c) error, **+ is not a valid operator

d) error, ';' is not allowed

View Answer

Answer: a

Explanation: i**+1 is evaluated as (i)**(+1).

6. What will be the output of the following Python code snippet?

print([i.lower() **for** i **in** "HELLO"])

a) ['h', 'e', 'l', 'l', 'o']

b) 'hello'

c) ['hello']

d) hello

View Answer

Answer: a

Explanation: We are iterating over each letter in the string.

7. What will be the output of the following Python code snippet?

print([i+j **for** i **in** "abc" **for** j **in** "def"])

a) ['da', 'ea', 'fa', 'db', 'eb', 'fb', 'dc', 'ec', 'fc']

b) [['ad', 'bd', 'cd'], ['ae', 'be', 'ce'], ['af', 'bf', 'cf']]

c) [['da', 'db', 'dc'], ['ea', 'eb', 'ec'], ['fa', 'fb', 'fc']]

d) ['ad', 'ae', 'af', 'bd', 'be', 'bf', 'cd', 'ce', 'cf']

View Answer

Answer: d

Explanation: If it were to be executed as a nested for loop, i would be the outer loop and j the inner loop.

8. What will be the output of the following Python code snippet?

print([[i+j **for** i **in** "abc"] **for** j **in** "def"])

a) ['da', 'ea', 'fa', 'db', 'eb', 'fb', 'dc', 'ec', 'fc']
b) [['ad', 'bd', 'cd'], ['ae', 'be', 'ce'], ['af', 'bf', 'cf']]
c) [['da', 'db', 'dc'], ['ea', 'eb', 'ec'], ['fa', 'fb', 'fc']]
d) ['ad', 'ae', 'af', 'bd', 'be', 'bf', 'cd', 'ce', 'cf']

View Answer

Answer: b

Explanation: The inner list is generated once for each value of j.

9. What will be the output of the following Python code snippet?

print([**if** i%2==0: i; **else**: i+1; **for** i **in** range(4)])

a) [0, 2, 2, 4]
b) [1, 1, 3, 3]
c) error
d) none of the mentioned

View Answer

Answer: c

Explanation: Syntax error.

10. Which of the following is the same as list(map(lambda x: x**-1, [1, 2, 3]))?

a) [x**-1 for x in [(1, 2, 3)]]
b) [1/x for x in [(1, 2, 3)]]
c) [1/x for x in (1, 2, 3)]
d) error

View Answer

Answer: c

Explanation: x**-1 is evaluated as (x)**(-1).

1. What will be the output of the following Python code?

l=[1,2,3,4,5]
[x&1 **for** x **in** l]

a) [1, 1, 1, 1, 1]
b) [1, 0, 1, 0, 1]
c) [1, 0, 0, 0, 0]
d) [0, 1, 0, 1, 0]

View Answer

Answer: b

Explanation: In the code shown above, each of the numbers of the list, that is, 1, 2, 3, 4 and 5 are AND-ed with 1 and the result is printed in the form of a list. Hence the output is [1, 0, 1, 0, 1].

2. What will be the output of the following Python code?

l1=[1,2,3]

l2=[4,5,6]

[x*y **for** x **in** l1 **for** y **in** l2]

a) [4, 8, 12, 5, 10, 15, 6, 12, 18]

b) [4, 10, 18]

c) [4, 5, 6, 8, 10, 12, 12, 15, 18]

d) [18, 12, 6, 15, 10, 5, 12, 8, 4]

View Answer

Answer: c

Explanation: The code shown above returns x*y, where x belongs to the list l1 and y belongs to the list l2. Therefore, the output is: [4, 5, 6, 8, 10, 12, 12, 15, 18].

3. Write the list comprehension to pick out only negative integers from a given list 'l'.

a) [x<0 in l]

b) [x for x<0 in l]

c) [x in l for x<0]

d) [x for x in l if x<0]

View Answer

Answer: d

Explanation: To pick out only the negative numbers from a given list 'l', the correct list comprehension statement would be: [x for x in l if x<0].

For example if we have a list l=[-65, 2, 7, -99, -4, 3]

>>> [x for x in l if x<0]

The output would be: [-65, -99, -4].

4. What will be the output of the following Python code?

s=["pune", "mumbai", "delhi"]

[(w.upper(), len(w)) **for** w **in** s]

a) Error

b) ['PUNE', 4, 'MUMBAI', 6, 'DELHI', 5]

c) [PUNE, 4, MUMBAI, 6, DELHI, 5]

d) [('PUNE', 4), ('MUMBAI', 6), ('DELHI', 5)]

View Answer

Answer: d

Explanation: If we need to generate two results, we need to put it in the form of a tuple. The code shown above returns each word of list in uppercase, along with the length of the word. Hence the output of the code is: [('PUNE', 4), ('MUMBAI', 6), ('DELHI', 5)].

5. What will be the output of the following Python code?

l1=[2,4,6]

l2=[-2,-4,-6]

for i **in** zip(l1, l2):

      print(i)

a)

  2, -2

  4, -4

  6, -6

b) [(2, -2), (4, -4), (6, -6)]

c)

  (2, -2)
  (4, -4)
  (6, -6)

d) [-4, -16, -36]

View Answer

Answer: c

Explanation: The output of the code shown will be:

(2, -2)
(4, -4)
(6, -6)

This format is due to the statement print(i).

6. What will be the output of the following Python code?

l1=[10, 20, 30]
l2=[-10, -20, -30]
l3=[x+y **for** x, y **in** zip(l1, l2)]
l3

a) Error

b) 0

c) [-20, -60, -80]

d) [0, 0, 0]

View Answer

Answer: d

Explanation: The code shown above returns x+y, for x belonging to the list l1 and y belonging to the list l2. That is, l3=[10-10, 20-20, 30-20], which is, [0, 0, 0].

7. Write a list comprehension for number and its cube for l=[1, 2, 3, 4, 5, 6, 7, 8, 9].

a) [x**3 for x in l]

b) [x^3 for x in l]

c) [x**3 in l]

d) [x^3 in l]

View Answer

Answer: a

Explanation: The list comprehension to print a list of cube of the numbers for the given list is:
[x**3 for x in l].

8. What will be the output of the following Python code?

l=[[1 ,2, 3], [4, 5, 6], [7, 8, 9]]
[[row[i] **for** row **in** l] **for** i **in** range(3)]

a) Error

b) [[1, 4, 7], [2, 5, 8], [3, 6, 9]]

c)

  1 4 7
  2 5 8
  3 6 9

d)
```
  (1 4 7)
  (2 5 8)
  (3 6 9)
```
View Answer

Answer: b

Explanation: In the code shown above, '3' is the index of the list. Had we used a number greater than 3, it would result in an error. The output of this code is: [[1, 4, 7], [2, 5, 8], [3, 6, 9]].

9. What will be the output of the following Python code?
```
import math
[str(round(math.pi)) for i in range (1, 6)]
```
a) ['3', '3', '3', '3', '3', '3']
b) ['3.1', '3.14', '3.142', '3.1416', '3.14159', '3.141582']
c) ['3', '3', '3', '3', '3']
d) ['3.1', '3.14', '3.142', '3.1416', '3.14159']
View Answer

Answer: c

Explanation: The list comprehension shown above rounds off pi(3.141) and returns its value, that is 3. This is done 5 times. Hence the output is: ['3', '3', '3', '3', '3'].

10. What will be the output of the following Python code?
```
l1=[1,2,3]
l2=[4,5,6]
l3=[7,8,9]
for x, y, z in zip(l1, l2, l3):
        print(x, y, z)
```
a)
```
  1 4 7
  2 5 8
  3 6 9
```
b)
```
  (1 4 7)
  (2 5 8)
  (3 6 9)
```
c) [(1, 4, 7), (2, 5, 8), (3, 6, 9)]
d) Error
View Answer

Answer: a

Explanation: The output of the code shown above is:
```
1 4 7
2 5 8
3 6 9
```
This is due to the statement: print(x, y,z).

1. Read the information given below carefully and write a list comprehension such that the output is: ['e', 'o']
w="hello"
v=('a', 'e', 'i', 'o', 'u')
a) [x for w in v if x in v]
b) [x for x in w if x in v]
c) [x for x in v if w in v]
d) [x for v in w for x in w]
View Answer

Answer: b

Explanation: The tuple 'v' is used to generate a list containing only vowels in the string 'w'. The result is a list containing only vowels present in the string "hello". Hence the required list comprehension is: [x for x in w if x in v].
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2. What will be the output of the following Python code?
[ord(ch) **for** ch **in** 'abc']
a) [97, 98, 99]
b) ['97', '98', '99']
c) [65, 66, 67]
d) Error
View Answer

Answer: a

Explanation: The list comprehension shown above returns the ASCII value of each alphabet of the string 'abc'. Hence the output is: [97, 98, 99]. Had the string been 'ABC', the output would be: [65, 66, 67].

3. What will be the output of the following Python code?
t=32.00
[round((x-32)*5/9) **for** x **in** t]
a) [0]
b) 0
c) [0.00]
d) Error
View Answer

Answer: d

Explanation: The value of t in the code shown above is equal to 32.00, which is a floating point value. 'Float' objects are not iterable. Hence the code results in an error.

4. Write a list comprehension for producing a list of numbers between 1 and 1000 that are divisible by 3.
a) [x in range(1, 1000) if x%3==0]
b) [x for x in range(1000) if x%3==0]
c) [x%3 for x in range(1, 1000)]
d) [x%3=0 for x in range(1, 1000)]
View Answer

Answer: b
Explanation: The list comprehension [x for x in range(1000) if x%3==0] produces a list of numbers between 1 and 1000 that are divisible by 3.
5. Write a list comprehension equivalent for the Python code shown below.
for i **in** range(1, 101):
      if int(i*0.5)==i*0.5:
            print(i)
a) [i for i in range(1, 100) if int(i*0.5)==(i*0.5)]
b) [i for i in range(1, 101) if int(i*0.5)==(i*0.5)]
c) [i for i in range(1, 101) if int(i*0.5)=(i*0.5)]
d) [i for i in range(1, 100) if int(i*0.5)=(i*0.5)]
View Answer

Answer: b
Explanation: The code shown above prints the value 'i' only if it satisfies the condition: int(i*0.5) is equal to (i*0.5). Hence the required list comprehension is: [i for i in range(1, 101) if int(i*0.5)==(i*0.5)].
6. What is the list comprehension equivalent for: list(map(lambda x:x**-1, [1, 2, 3]))?
a) [1|x for x in [1, 2, 3]]
b) [-1**x for x in [1, 2, 3]]
c) [x**-1 for x in [1, 2, 3]]
d) [x^-1 for x in range(4)]
View Answer

Answer: c
Explanation: The output of the function list(map(lambda x:x**-1, [1, 2, 3])) is [1.0, 0.5, 0.3333333333333333] and that of the list comprehension [x**-1 for x in [1, 2, 3]] is [1.0, 0.5, 0.3333333333333333]. Hence the answer is: [x**-1 for x in [1, 2, 3]].
7. Write a list comprehension to produce the list: [1, 2, 4, 8, 16……212].
a) [(2**x) for x in range(0, 13)]
b) [(x**2) for x in range(1, 13)]
c) [(2**x) for x in range(1, 13)]
d) [(x**2) for x in range(0, 13)]
View Answer

Answer: a
Explanation: The required list comprehension will print the numbers from 1 to 12, each raised to 2. The required answer is thus, [(2**x) for x in range(0, 13)].
8. What is the list comprehension equivalent for?
{x : x is a whole number less than 20, x is even}   (including zero)
a) [x for x in range(1, 20) if (x%2==0)]
b) [x for x in range(0, 20) if (x//2==0)]
c) [x for x in range(1, 20) if (x//2==0)]
d) [x for x in range(0, 20) if (x%2==0)]
View Answer

Answer: d
Explanation: The required list comprehension will print a whole number, less than 20, provided

that the number is even. Since the output list should contain zero as well, the answer to this question is: [x for x in range(0, 20) if (x%2==0)].

9. What will be the output of the following Python list comprehension?

[j **for** i **in** range(2,8) **for** j **in** range(i*2, 50, i)]

a) A list of prime numbers up to 50
b) A list of numbers divisible by 2, up to 50
c) A list of non prime numbers, up to 50
d) Error

View Answer

Answer: c

Explanation: The list comprehension shown above returns a list of non-prime numbers up to 50. The logic behind this is that the square root of 50 is almost equal to 7. Hence all the multiples of 2-7 are not prime in this range.

10. What will be the output of the following Python code?

l=["good", "oh!", "excellent!", "#450"]

[n **for** n **in** l **if** n.isalpha() **or** n.isdigit()]

a) ['good', 'oh', 'excellent', '450']
b) ['good']
c) ['good', '#450']
d) ['oh!', 'excellent!', '#450']

View Answer

Answer: b

Explanation: The code shown above returns a new list containing only strings which do not have any punctuation in them. The only string from the list which does not contain any punctuation is 'good'. Hence the output of the code shown above is ['good'].

1. Which of the following matrices will throw an error in Python?

a)
    A = [[1, 2, 3],
    [4, 5, 6],
    [7, 8, 9]]

b)
    B = [[3, 3, 3]
    [4, 4, 4]
    [5, 5, 5]]

c)
    C = [(1, 2, 4),
    (5, 6, 7),
    (8, 9, 10)]

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d)
    D = [2, 3, 4,
    3, 3, 3,
    4, 5, 6]

View Answer

Answer: b

Explanation: In matrix B will result in an error because in the absence of a comma at the end of each row, it behaves like three separate lists. The error thrown states that the list integers must be integers or slices, not tuples.

2. What will be the output of the following Python code?

A = [[1, 2, 3],
      [4, 5, 6],
      [7, 8, 9]]
A[1]

a) [4, 5, 6]
b) [3, 6, 9]
c) [1, 4, 7]
d) [1, 2, 3]

View Answer

Answer: a

Explanation: We can index the rows and columns using normal index operations. The statement A[1] represents the second row, that is, the middle row. Hence the output of the code will be: [4, 5, 6].

3. Which of the following Python statements will result in the output: 6?

A = [[1, 2, 3],
     [4, 5, 6],
     [7, 8, 9]]

a) A[2][3]
b) A[2][1]
c) A[1][2]
d) A[3][2]

View Answer

Answer: c

Explanation: The output that is required is 6, that is, row 2, item 3. This position is represented by the statement: A[1][2].

4. What will be the output of the following Python code?

A = [[1, 2, 3],
     [4, 5, 6],
     [7, 8, 9]]
[A[row][1] **for** row **in** (0, 1, 2)]

a) [7, 8, 9]
b) [4, 5, 6]
c) [2, 5, 8]
d) [1, 4, 7]

View Answer

Answer: c

Explanation: To get a particular column as output, we can simple iterate across the rows and

pull out the desired column, or iterate through positions in rows and index as we go. Hence the output of the code shown above is: [2, 5, 8].

5. What will be the output of the following Python code?

```
A = [[1, 2, 3],
    [4, 5, 6],
    [7, 8, 9]]
[A[i][i] for i in range(len(A))]
```

a) [1, 5, 9]
b) [3, 5, 7]
c) [4, 5, 6]
d) [2, 5, 8]
View Answer

Answer: a

Explanation: We can also perform tasks like pulling out a diagonal. The expression shown above uses range to generate the list of offsets and the indices with the row and column the same, picking out A[0][0], then A[1][1] and so on. Hence the output of the code is: [1, 5, 9].

6. What will be the output of the following Python code?

```
l=[[1, 2, 3], [4, 5, 6]]
for i in range(len(l)):
        for j in range(len(l[i])):
                l[i][j]+=10
l
```

a) No output
b) Error
c) [[1, 2, 3], [4, 5, 6]]
d) [[11, 12, 13], [14, 15, 16]]
View Answer

Answer: d

Explanation: We use range twice if the shapes differ. Each element of list l is increased by 10. Hence the output is: [[11, 12, 13], [14, 15, 16]]

7. What will be the output of the following Python code?

```
A = [[1, 2, 3],
    [4, 5, 6],
    [7, 8, 9]]

[[col + 10 for col in row] for row in A]
```

a) [[11, 12, 13], [14, 15, 16], [17, 18, 19]]
b) Error
c) [11, 12, 13], [14, 15, 16], [17, 18, 19]
d) [11, 12, 13, 14, 15, 16, 17, 18, 19]
View Answer

Answer: a

Explanation: The code shown above shows a list comprehension which adds 10 to each element

of the matrix A and prints it row-wise. Hence the output of the code is: [[11, 12, 13], [14, 15, 16], [17, 18, 19]]

8. What will be the output of the following Python code?

```
A = [[1, 2, 3],
    [4, 5, 6],
    [7, 8, 9]]
[A[i][len(A)-1-i] for i in range(len(A))]
```

a) [1, 5, 9]
b) [4, 5, 6]
c) [3, 5, 7]
d) [2, 5, 8]

View Answer

Answer: c

Explanation: This expression scales the common index to fetch A[0][2], A[1][1], etc. We assume the matrix has the same number of rows and columns.

9. What will be the output of the following Python code?

```
A = [[1, 2, 3],
    [4, 5, 6],
    [7, 8, 9]]
B = [[3, 3, 3],
    [4, 4, 4],
    [5, 5, 5]]
[B[row][col]*A[row][col] for row in range(3) for col in range(3)]
```

a) [3, 6, 9, 16, 20, 24, 35, 40, 45]
b) Error
c) [0, 30, 60, 120, 160, 200, 300, 350, 400]
d) 0

View Answer

Answer: a

Explanation: In the code shown above, we have used list comprehension to combine values of multiple matrices. We have multiplied the elements of the matrix B with that of the matrix A, in the range(3). Hence the output of this code is: [3, 6, 9, 16, 20, 24, 35, 40, 45].

10. What will be the output of the following Python code?

```
r = [11, 12, 13, 14, 15, 16, 17, 18, 19]
A = [[0, 10, 20],
        [30, 40, 50],
        [60, 70, 80]]
for row in A:
        for col in row:
                r.append(col+10)
r
```

a) [11, 12, 13, 14, 15, 16, 17, 18, 19, 10, 20, 30, 40, 50, 60, 70, 80, 90]
b) [10, 20, 30, 40, 50, 60, 70, 80, 90]
c) [11, 12, 13, 14, 15, 16, 17, 18, 19]

d) [0, 10, 20, 30, 40, 50, 60, 70, 80]
View Answer
Answer: a
Explanation: The code shown above adds 10 to each element of the matrix and prints the output row-wise. Since the list l already contains some elements, the new elements are appended to it. Hence the output of this code is: [11, 12, 13, 14, 15, 16, 17, 18, 19, 10, 20, 30, 40, 50, 60, 70, 80, 90].
11. What will be the output of the following Python code?
A = [[1, 2, 3],
    [4, 5, 6],
    [7, 8, 9]]
B = [[3, 3, 3],
    [4, 4, 4],
    [5, 5, 5]]
[[col1 * col2 **for** (col1, col2) **in** zip(row1, row2)] **for** (row1, row2) **in** zip(A, B)]
a) [0, 30, 60, 120, 160, 200, 300, 350, 400]
b) [[3, 6, 9], [16, 20, 24], [35, 40, 45]]
c) No output
d) Error
View Answer
Answer: b
Explanation: The list comprehension shown above results in the output: [[3, 6, 9], [16, 20, 24], [35, 40, 45]].
12. What will be the output of the following Python code?
A = [[1, 2, 3],
    [4, 5, 6],
    [7, 8, 9]]
B = [[3, 3, 3],
    [4, 4, 4],
    [5, 5, 5]]
zip(A, B)
a) Address of the zip object
b) Address of the matrices A and B
c) No output
d) [3, 6, 9, 16, 20, 24, 35, 40, 45]
View Answer
Answer: a
Explanation: The output of the code shown above returns the address of the zip object. If we print it in the form of a list, we get:
>>> list(zip(A, B))
[([1, 2, 3], [3, 3, 3]), ([4, 5, 6], [4, 4, 4]), ([7, 8, 9], [5, 5, 5])]
1. Which of the following is a Python tuple?
a) [1, 2, 3]
b) (1, 2, 3)

c) {1, 2, 3}
d) {}
View Answer
Answer: b
Explanation: Tuples are represented with round brackets.
2. Suppose t = (1, 2, 4, 3), which of the following is incorrect?
a) print(t[3])
b) t[3] = 45
c) print(max(t))
d) print(len(t))
View Answer
Answer: b
Explanation: Values cannot be modified in the case of tuple, that is, tuple is immutable.
3. What will be the output of the following Python code?
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1. >>>t=(1,2,4,3)
2. >>>t[1:3]
a) (1, 2)
b) (1, 2, 4)
c) (2, 4)
d) (2, 4, 3)
View Answer
Answer: c
Explanation: Slicing in tuples takes place just as it does in strings.
4. What will be the output of the following Python code?
1. >>>t=(1,2,4,3)
2. >>>t[1:-1]
a) (1, 2)
b) (1, 2, 4)
c) (2, 4)
d) (2, 4, 3)
View Answer
Answer: c
Explanation: Slicing in tuples takes place just as it does in strings.
5. What will be the output of the following Python code?
1. >>>t = (1, 2, 4, 3, 8, 9)
2. >>>[t[i] for i in range(0, len(t), 2)]
a) [2, 3, 9]
b) [1, 2, 4, 3, 8, 9]
c) [1, 4, 8]
d) (1, 4, 8)
View Answer
Answer: c
Explanation: Execute in the shell to verify.

6. What will be the output of the following Python code?
    1. d = {"john":40, "peter":45}
    2. d["john"]
a) 40
b) 45
c) "john"
d) "peter"
View Answer

Answer: a

Explanation: Execute in the shell to verify.

7. What will be the output of the following Python code?
    1. >>>t = (1, 2)
    2. >>>2 * t
a) (1, 2, 1, 2)
b) [1, 2, 1, 2]
c) (1, 1, 2, 2)
d) [1, 1, 2, 2]
View Answer

Answer: a

Explanation: * operator concatenates tuple.

8. What will be the output of the following Python code?
    1. >>>t1 = (1, 2, 4, 3)
    2. >>>t2 = (1, 2, 3, 4)
    3. >>>t1 < t2
a) True
b) False
c) Error
d) None
View Answer

Answer: b

Explanation: Elements are compared one by one in this case.

9. What will be the output of the following Python code?
    1. >>>my_tuple = (1, 2, 3, 4)
    2. >>>my_tuple.append((5, 6, 7))
    3. >>>print len(my_tuple)
a) 1
b) 2
c) 5
d) Error
View Answer

Answer: d

Explanation: Tuples are immutable and don't have an append method. An exception is thrown in this case.

10. What will be the output of the following Python code?

1. numberGames = {}
2. numberGames[(1,2,4)] = 8
3. numberGames[(4,2,1)] = 10
4. numberGames[(1,2)] = 12
5. sum = 0
6. for k in numberGames:
7.   sum += numberGames[k]
8. print len(numberGames) + sum

a) 30
b) 24
c) 33
d) 12
View Answer

Answer: c

Explanation: Tuples can be used for keys into dictionary. The tuples can have mixed length and the order of the items in the tuple is considered when comparing the equality of the keys.

1. What is the data type of (1)?
a) Tuple
b) Integer
c) List
d) Both tuple and integer
View Answer

Answer: b

Explanation: A tuple of one element must be created as (1,).

2. If a=(1,2,3,4), a[1:-1] is _____
a) Error, tuple slicing doesn't exist
b) [2,3]
c) (2,3,4)
d) (2,3)
View Answer

Answer: d

Explanation: Tuple slicing exists and a[1:-1] returns (2,3).

3. What will be the output of the following Python code?
advertisement
>>> a=(1,2,(4,5))
>>> b=(1,2,(3,4))
>>> a<b
a) False
b) True
c) Error, < operator is not valid for tuples
d) Error, < operator is valid for tuples but not if there are sub-tuples
View Answer

Answer: a

Explanation: Since the first element in the sub-tuple of a is larger that the first element in the subtuple of b, False is printed.

4. What will be the output of the following Python code?

```
>>> a=("Check")*3
>>> a
```

a) ('Check','Check','Check')
b) * Operator not valid for tuples
c) ('CheckCheckCheck')
d) Syntax error

View Answer

Answer: c

Explanation: Here ("Check") is a string not a tuple because there is no comma after the element.

5. What will be the output of the following Python code?

```
>>> a=(1,2,3,4)
>>> del(a[2])
```

a) Now, a=(1,2,4)
b) Now, a=(1,3,4)
c) Now a=(3,4)
d) Error as tuple is immutable

View Answer

Answer: d

Explanation: 'tuple' object doesn't support item deletion.

6. What will be the output of the following Python code?

```
>>> a=(2,3,4)
>>> sum(a,3)
```

a) Too many arguments for sum() method
b) The method sum() doesn't exist for tuples
c) 12
d) 9

View Answer

Answer: c

Explanation: In the above case, 3 is the starting value to which the sum of the tuple is added to.

7. Is the following Python code valid?

```
>>> a=(1,2,3,4)
>>> del a
```

a) No because tuple is immutable
b) Yes, first element in the tuple is deleted
c) Yes, the entire tuple is deleted
d) No, invalid syntax for del method

View Answer

Answer: c

Explanation: The command del a deletes the entire tuple.

8. What type of data is: a=[(1,1),(2,4),(3,9)]?
a) Array of tuples
b) List of tuples
c) Tuples of lists
d) Invalid type
View Answer

Answer: b
Explanation: The variable a has tuples enclosed in a list making it a list of tuples.
9. What will be the output of the following Python code?
>>> a=(0,1,2,3,4)
>>> b=slice(0,2)
>>> a[b]
a) Invalid syntax for slicing
b) [0,2]
c) (0,1)
d) (0,2)
View Answer

Answer: c
Explanation: The method illustrated in the above piece of code is that of naming of slices.
10. Is the following Python code valid?
>>> a=(1,2,3)
>>> b=('A','B','C')
>>> c=tuple(zip(a,b))
a) Yes, c will be ((1, 'A'), (2, 'B'), (3, 'C'))
b) Yes, c will be ((1,2,3),('A','B','C'))
c) No because tuples are immutable
d) No because the syntax for zip function isn't valid
View Answer

Answer: a
Explanation: Zip function combines individual elements of two iterables into tuples. Execute in Python shell to verify.
1. Is the following Python code valid?
>>> a,b,c=1,2,3
>>> a,b,c
a) Yes, [1,2,3] is printed
b) No, invalid syntax
c) Yes, (1,2,3) is printed
d) 1 is printed
View Answer

Answer: c
Explanation: A tuple needn't be enclosed in parenthesis.
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2. What will be the output of the following Python code?
a = ('check',)

```
n = 2
for i in range(int(n)):
    a = (a,)
    print(a)
```
a) Error, tuples are immutable
b)
(('check',),)
((('check',),),)
c) (('check',)'check',)
d)
(('check',)'check',)
((('check',)'check',)'check',)
View Answer
Answer: b
Explanation: The loop runs two times and each time the loop runs an extra parenthesis along with a comma is added to the tuple (as a=(a')).

3. Is the following Python code valid?
```
>>> a,b=1,2,3
```
a) Yes, this is an example of tuple unpacking. a=1 and b=2
b) Yes, this is an example of tuple unpacking. a=(1,2) and b=3
c) No, too many values to unpack
d) Yes, this is an example of tuple unpacking. a=1 and b=(2,3)
View Answer
Answer: c
Explanation: For unpacking to happen, the number of values of the right hand side must be equal to the number of variables on the left hand side.
4. What will be the output of the following Python code?
```
>>> a=(1,2)
>>> b=(3,4)
>>> c=a+b
>>> c
```
a) (4,6)
b) (1,2,3,4)
c) Error as tuples are immutable
d) None
View Answer
Answer: b
Explanation: In the above piece of code, the values of the tuples aren't being changed. Both the tuples are simply concatenated.
5. What will be the output of the following Python code?
```
>>> a,b=6,7
>>> a,b=b,a
```

>>> a,b
a) (6,7)
b) Invalid syntax
c) (7,6)
d) Nothing is printed
View Answer

Answer: c
Explanation: The above piece of code illustrates the unpacking of variables.
6. What will be the output of the following Python code?
>>> **import** collections
>>> a=collections.namedtuple('a',['i','j'])
>>> obj=a(i=4,j=7)
>>> obj
a) a(i=4, j=7)
b) obj(i=4, j=7)
c) (4,7)
d) An exception is thrown
View Answer

Answer: a
Explanation: The above piece of code illustrates the concept of named tuples.
7. Tuples can't be made keys of a dictionary.
a) True
b) False
View Answer

Answer: b
Explanation: Tuples can be made keys of a dictionary because they are hashable.
8. Is the following Python code valid?
>>> a=2,3,4,5
>>> a
a) Yes, 2 is printed
b) Yes, [2,3,4,5] is printed
c) No, too many values to unpack
d) Yes, (2,3,4,5) is printed
View Answer

Answer: d
Explanation: A tuple needn't be enclosed in parenthesis.
9. What will be the output of the following Python code?
>>> a=(2,3,1,5)
>>> a.sort()
>>> a
a) (1,2,3,5)
b) (2,3,1,5)
c) None

d) Error, tuple has no attribute sort

View Answer

Answer: d

Explanation: A tuple is immutable thus it doesn't have a sort attribute.

10. Is the following Python code valid?

```
>>> a=(1,2,3)
>>> b=a.update(4,)
```

a) Yes, a=(1,2,3,4) and b=(1,2,3,4)

b) Yes, a=(1,2,3) and b=(1,2,3,4)

c) No because tuples are immutable

d) No because wrong syntax for update() method

View Answer

Answer: c

Explanation: Tuple doesn't have any update() attribute because it is immutable.

11. What will be the output of the following Python code?

```
>>> a=[(2,4),(1,2),(3,9)]
>>> a.sort()
>>> a
```

a) [(1, 2), (2, 4), (3, 9)]

b) [(2,4),(1,2),(3,9)]

c) Error because tuples are immutable

d) Error, tuple has no sort attribute

View Answer

Answer: a

Explanation: A list of tuples is a list itself. Hence items of a list can be sorted.

1. Which of these about a set is not true?

a) Mutable data type

b) Allows duplicate values

c) Data type with unordered values

d) Immutable data type

View Answer

Answer: d

Explanation: A set is a mutable data type with non-duplicate, unordered values, providing the usual mathematical set operations.

2. Which of the following is not the correct syntax for creating a set?

a) set([[1,2],[3,4]])

b) set([1,2,2,3,4])

c) set((1,2,3,4))

d) {1,2,3,4}

View Answer

Answer: a

Explanation: The argument given for the set must be an iterable.

3. What will be the output of the following Python code?

nums = set([1,1,2,3,3,3,4,4])
print(len(nums))
a) 7
b) Error, invalid syntax for formation of set
c) 4
d) 8
View Answer
Answer: c
Explanation: A set doesn't have duplicate items.
4. What will be the output of the following Python code?
a = [5,5,6,7,7,7]
b = set(a)
def test(lst):
  if lst in b:
    return 1
  else:
    return 0
for i in filter(test, a):
  print(i,end=" ")
a) 5 5 6
b) 5 6 7
c) 5 5 6 7 7 7
d) 5 6 7 7 7
View Answer
Answer: c
Explanation: The filter function will return all the values from list a which are true when passed to function test. Since all the members of the set are non-duplicate members of the list, all of the values will return true. Hence all the values in the list are printed.
5. Which of the following statements is used to create an empty set?
a) { }
b) set()
c) [ ]
d) ( )
View Answer
Answer: b
Explanation: { } creates a dictionary not a set. Only set() creates an empty set.
6. What will be the output of the following Python code?
>>> a={5,4}
>>> b={1,2,4,5}
>>> a<b
a) {1,2}
b) True
c) False

d) Invalid operation

View Answer

Answer: b

Explanation: a<b returns True if a is a proper subset of b.

7. If a={5,6,7,8}, which of the following statements is false?

a) print(len(a))

b) print(min(a))

c) a.remove(5)

d) a[2]=45

View Answer

Answer: d

Explanation: The members of a set can be accessed by their index values since the elements of the set are unordered.

8. If a={5,6,7}, what happens when a.add(5) is executed?

a) a={5,5,6,7}

b) a={5,6,7}

c) Error as there is no add function for set data type

d) Error as 5 already exists in the set

View Answer

Answer: b

Explanation: There exists add method for set data type. However 5 isn't added again as set consists of only non-duplicate elements and 5 already exists in the set. Execute in python shell to verify.

9. What will be the output of the following Python code?

>>> a={4,5,6}

>>> b={2,8,6}

>>> a+b

a) {4,5,6,2,8}

b) {4,5,6,2,8,6}

c) Error as unsupported operand type for sets

d) Error as the duplicate item 6 is present in both sets

View Answer

Answer: c

Explanation: Execute in python shell to verify.

10. What will be the output of the following Python code?

>>> a={4,5,6}

>>> b={2,8,6}

>>> a-b

a) {4,5}

b) {6}

c) Error as unsupported operand type for set data type

d) Error as the duplicate item 6 is present in both sets

View Answer

Answer: a

Explanation: – operator gives the set of elements in set a but not in set b.

11. What will be the output of the following Python code?

```
>>> a={5,6,7,8}
>>> b={7,8,10,11}
>>> a^b
```

a) {5,6,7,8,10,11}
b) {7,8}
c) Error as unsupported operand type of set data type
d) {5,6,10,11}

View Answer

Answer: d

Explanation: ^ operator returns a set of elements in set A or set B, but not in both (symmetric difference).

12. What will be the output of the following Python code?

```
>>> s={5,6}
>>> s*3
```

a) Error as unsupported operand type for set data type
b) {5,6,5,6,5,6}
c) {5,6}
d) Error as multiplication creates duplicate elements which isn't allowed

View Answer

Answer: a

Explanation: The multiplication operator isn't valid for the set data type.

13. What will be the output of the following Python code?

```
>>> a={5,6,7,8}
>>> b={7,5,6,8}
>>> a==b
```

a) True
b) False

View Answer

Answer: a

Explanation: It is possible to compare two sets and the order of elements in both the sets doesn't matter if the values of the elements are the same.

14. What will be the output of the following Python code?

```
>>> a={3,4,5}
>>> b={5,6,7}
>>> a|b
```

a) Invalid operation
b) {3, 4, 5, 6, 7}
c) {5}
d) {3,4,6,7}

View Answer

Answer: b

Explanation: The operation in the above piece of code is union operation. This operation produces a set of elements in both set a and set b.

15. Is the following Python code valid?

a={3,4,{7,5}}

print(a[2][0])

a) Yes, 7 is printed

b) Error, elements of a set can't be printed

c) Error, subsets aren't allowed

d) Yes, {7,5} is printed

View Answer

Answer: c

Explanation: In python, elements of a set must not be mutable and sets are mutable. Thus, subsets can't exist.

1. Which of these about a frozenset is not true?

a) Mutable data type

b) Allows duplicate values

c) Data type with unordered values

d) Immutable data type

View Answer

Answer: a

Explanation: A frozenset is an immutable data type.

2. What is the syntax of the following Python code?

>>> a=frozenset(set([5,6,7]))

>>> a

a) {5,6,7}

b) frozenset({5,6,7})

c) Error, not possible to convert set into frozenset

d) Syntax error

View Answer

Answer: b

Explanation: The above piece of code is the correct syntax for creating a frozenset.

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3. Is the following Python code valid?

>>> a=frozenset([5,6,7])

>>> a

>>> a.add(5)

a) Yes, now a is {5,5,6,7}

b) No, frozen set is immutable

c) No, invalid syntax for add method

d) Yes, now a is {5,6,7}

View Answer

Answer: b

Explanation: Since a frozen set is immutable, add method doesn't exist for frozen method.

4. Set members must not be hashable.
a) True
b) False
View Answer

Answer: b
Explanation: Set members must always be hashable.
5. What will be the output of the following Python code?
>>> a={3,4,5}
>>> a.update([1,2,3])
>>> a
a) Error, no method called update for set data type
b) {1, 2, 3, 4, 5}
c) Error, list can't be added to set
d) Error, duplicate item present in list
View Answer

Answer: b
Explanation: The method update adds elements to a set.
6. What will be the output of the following Python code?
>>> a={1,2,3}
>>> a.intersection_update({2,3,4,5})
>>> a
a) {2,3}
b) Error, duplicate item present in list
c) Error, no method called intersection_update for set data type
d) {1,4,5}
View Answer

Answer: a
Explanation: The method intersection_update returns a set which is an intersection of both the sets.
7. What will be the output of the following Python code?
>>> a={1,2,3}
>>> b=a
>>> b.remove(3)
>>> a
a) {1,2,3}
b) Error, copying of sets isn't allowed
c) {1,2}
d) Error, invalid syntax for remove
View Answer

Answer: c
Explanation: Any change made in b is reflected in a because b is an alias of a.
8. What will be the output of the following Python code?
>>> a={1,2,3}
>>> b=a.copy()

>>> b.add(4)
>>> a
a) {1,2,3}
b) Error, invalid syntax for add
c) {1,2,3,4}
d) Error, copying of sets isn't allowed
View Answer

Answer: a

Explanation: In the above piece of code, b is barely a copy and not an alias of a. Hence any change made in b isn't reflected in a.

9. What will be the output of the following Python code?

>>> a={1,2,3}
>>> b=a.add(4)
>>> b
a) 0
b) {1,2,3,4}
c) {1,2,3}
d) Nothing is printed
View Answer

Answer: d

Explanation: The method add returns nothing, hence nothing is printed.

10. What will be the output of the following Python code?

>>> a={1,2,3}
>>> b=frozenset([3,4,5])
>>> a-b
a) {1,2}
b) Error as difference between a set and frozenset can't be found out
c) Error as unsupported operand type for set data type
d) frozenset({1,2})
View Answer

Answer: a

Explanation: – operator gives the set of elements in set a but not in set b.

11. What will be the output of the following Python code?

>>> a={5,6,7}
>>> sum(a,5)
a) 5
b) 23
c) 18
d) Invalid syntax for sum method, too many arguments
View Answer

Answer: b

Explanation: The second parameter is the start value for the sum of elements in set a. Thus, sum(a,5) = 5+(5+6+7)=23.

12. What will be the output of the following Python code?

>>> a={1,2,3}
>>> {x*2 **for** x **in** a|{4,5}}
a) {2,4,6}
b) Error, set comprehensions aren't allowed
c) {8, 2, 10, 4, 6}
d) {8,10}
View Answer
Answer: c
Explanation: Set comprehensions are allowed.
13. What will be the output of the following Python code?
>>> a={5,6,7,8}
>>> b={7,8,9,10}
>>> len(a+b)
a) 8
b) Error, unsupported operand '+' for sets
c) 6
d) Nothing is displayed
View Answer
Answer: b
Explanation: Duplicate elements in a+b is eliminated and the length of a+b is computed.
14. What will be the output of the following Python code?
a={1,2,3}
b={1,2,3}
c=a.issubset(b)
print(c)
a) True
b) Error, no method called issubset() exists
c) Syntax error for issubset() method
d) False
View Answer
Answer: a
Explanation: The method issubset() returns True if b is a proper subset of a.
15. Is the following Python code valid?
a={1,2,3}
b={1,2,3,4}
c=a.issuperset(b)
print(c)
a) False
b) True
c) Syntax error for issuperset() method
d) Error, no method called issuperset() exists
View Answer
Answer: a
Explanation: The method issubset() returns True if b is a proper subset of a.

1. What will be the output of the following Python code?
s=set()
type(s)
a) <'set'>
b) <class 'set'>
c) set
d) class set
View Answer

Answer: b
Explanation: When we find the type of a set, the output returned is: .
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2. The following Python code results in an error.
s={2, 3, 4, [5, 6]}
a) True
b) False
View Answer

Answer: a
Explanation: The set data type makes use of a principle known as hashing. This means that each item in the set should be hashable. Hashable in this context means immutable. List is mutable and hence the line of code shown above will result in an error.
3. Set makes use of _____
Dictionary makes use of _____
a) keys, keys
b) key values, keys
c) keys, key values
d) key values, key values
View Answer

Answer: c
Explanation: Set makes use of keys.
Dictionary makes use of key values.
4. Which of the following lines of code will result in an error?
a) s={abs}
b) s={4, 'abc', (1,2)}
c) s={2, 2.2, 3, 'xyz'}
d) s={san}
View Answer

Answer: d
Explanation: The line: s={san} will result in an error because 'san' is not defined. The line s={abs} does not result in an error because abs is a built-in function. The other sets shown do not result in an error because all the items are hashable.
5. What will be the output of the following Python code?
s={2, 5, 6, 6, 7}
s

a) {2, 5, 7}
b) {2, 5, 6, 7}
c) {2, 5, 6, 6, 7}
d) Error
View Answer

Answer: b

Explanation: Duplicate values are not allowed in sets. Hence, the output of the code shown above will be a set containing the duplicate value only once. Therefore the output is: {2, 5, 6, 7}

6. Input order is preserved in sets.
a) True
b) False
View Answer

Answer: b

Explanation: The input order in sets is not maintained. This is demonstrated by the code shown below:
>>> s={2, 6, 8, 1, 5}
>>> s
{8, 1, 2, 5, 6}

7. Write a list comprehension for number and its cube for:
l=[1, 2, 3, 4, 5, 6, 7, 8, 9]
a) [x**3 for x in l]
b) [x^3 for x in l]
c) [x**3 in l]
d) [x^3 in l]
View Answer

Answer: a

Explanation: The list comprehension to print a list of cube of the numbers for the given list is:
[x**3 for x in l].

8. What will be the output of the following Python code?
s={1, 2, 3}
s.update(4)
s
a) {1, 2, 3, 4}
b) {1, 2, 4, 3}
c) {4, 1, 2, 3}
d) Error
View Answer

Answer: d

Explanation: The code shown above will result in an error because the argument given to the function update should necessarily be an iterable. Hence if we write this function as:
s.update([4]), there will be no error.

9. Which of the following functions cannot be used on heterogeneous sets?
a) pop
b) remove

c) update

d) sum

Answer: d

Explanation: The functions sum, min and max cannot be used on mixed type (heterogeneous) sets. The functions pop, remove, update etc can be used on homogenous as well as heterogeneous sets. An example of heterogeneous sets is: {'abc', 4, (1, 2)}

10. What will be the output of the following Python code?

```
s={4>3, 0, 3-3}
all(s)
any(s)
```

a)

True

False

b)

False

True

c)

True

True

d)

False

False

Answer: b

Explanation: The function all returns true only if all the conditions given are true. But in the example shown above, we have 0 as a value. Hence false is returned. Similarly, any returns true if any one condition is true. Since the condition 4>3 is true, true is returned.

1. Which of the following functions will return the symmetric difference between two sets, x and y?

a) x | y

b) x ^ y

c) x & y

d) x – y

Answer: b

Explanation: The function x ^ y returns the symmetric difference between the two sets x and y. This is basically an XOR operation being performed on the two sets.

2. What will be the output of the following Python code snippet?

```
z=set('abc$de')
'a' in z
```

a) True

b) False

c) No output

d) Error
Answer: a
Explanation: The code shown above is used to check whether a particular item is a part of a given set or not. Since 'a' is a part of the set z, the output is true. Note that this code would result in an error in the absence of the quotes.
3. What will be the output of the following Python code snippet?

```
z=set('abc')
z.add('san')
z.update(set(['p', 'q']))
z
```

a) {'abc', 'p', 'q', 'san'}
b) {'a', 'b', 'c', ['p', 'q'], 'san}
c) {'a', 'c', 'c', 'p', 'q', 's', 'a', 'n'}
d) {'a', 'b', 'c', 'p', 'q', 'san'}
Answer: d
Explanation: The code shown first adds the element 'san' to the set z. The set z is then updated and two more elements, namely, 'p' and 'q' are added to it. Hence the output is: {'a', 'b', 'c', 'p', 'q', 'san'}
4. What will be the output of the following Python code snippet?

```
s=set([1, 2, 3])
s.union([4, 5])
s|([4, 5])
```

a)
   {1, 2, 3, 4, 5}
   {1, 2, 3, 4, 5}
b)
   Error
   {1, 2, 3, 4, 5}
c)
   {1, 2, 3, 4, 5}
   Error
d)
   Error
   Error
Answer: c
Explanation: The first function in the code shown above returns the set {1, 2, 3, 4, 5}. This is because the method of the function union allows any iterable. However the second function results in an error because of unsupported data type, that is list and set.

5. What will be the output of the following Python code snippet?

```python
for x in set('pqr'):
        print(x*2)
```

a)
pp
qq
rr
b)
pqr
pqr
c) ppqqrr
d) pqrpqr
View Answer

Answer: a

Explanation: The code shown above prints each element of the set twice separately. Hence the output of this code is:
pp
qq
rr

6. What will be the output of the following Python code snippet?

```python
{a**2 for a in range(4)}
```

a) {1, 4, 9, 16}
b) {0, 1, 4, 9, 16}
c) Error
d) {0, 1, 4, 9}
View Answer

Answer: d

Explanation: The code shown above returns a set containing the square of values in the range 0-3, that is 0, 1, 2 and 3. Hence the output of this line of code is: {0, 1, 4, 9}.

7. What will be the output of the following Python function?

```python
{x for x in 'abc'}
{x*3 for x in 'abc'}
```

a)
   {abc}
   aaa
   bbb
   ccc
b)
   abc
   abc abc abc
c)
   {'a', 'b', 'c'}
   {'aaa', 'bbb', 'ccc'}
d)

{'a', 'b', 'c'}
abc
abc
abc

View Answer

Answer: c

Explanation: The first function prints each element of the set separately, hence the output is: {'a', 'b', 'c'}. The second function prints each element of the set thrice, contained in a new set. Hence the output of the second function is: {'aaa', 'bbb', 'ccc'}. (Note that the order may not be the same)

8. The output of the following code is: class<'set'>.
type({})
a) True
b) False

View Answer

Answer: b

Explanation: The output of the line of code shown above is: class<'dict'>. This is because {} represents an empty dictionary, whereas set() initializes an empty set. Hence the statement is false.

9. What will be the output of the following Python code snippet?
a=[1, 4, 3, 5, 2]
b=[3, 1, 5, 2, 4]
a==b
set(a)==set(b)
a)
  True
  False
b)
  False
  False
c)
  False
  True
d)
  True
  True

View Answer

Answer: c

Explanation: In the code shown above, when we check the equality of the two lists, a and b, we get the output false. This is because of the difference in the order of elements of the two lists. However, when these lists are converted to sets and checked for equality, the output is true.

This is known as order-neutral equality. Two sets are said to be equal if and only if they contain exactly the same elements, regardless of order.

10. What will be the output of the following Python code snippet?
l=[1, 2, 4, 5, 2, 'xy', 4]
set(l)
l
a)
{1, 2, 4, 5, 2, 'xy', 4}
[1, 2, 4, 5, 2, 'xy', 4]
b)
{1, 2, 4, 5, 'xy'}
[1, 2, 4, 5, 2, 'xy', 4]
c)
{1, 5, 'xy'}
[1, 5, 'xy']
d)
{1, 2, 4, 5, 'xy'}
[1, 2, 4, 5, 'xy']
View Answer

Answer: b
Explanation: In the code shown above, the function set(l) converts the given list into a set. When this happens, all the duplicates are automatically removed. Hence the output is: {1, 2, 4, 5, 'xy'}. On the other hand, the list l remains unchanged. Therefore the output is: [1, 2, 4, 5, 2, 'xy', 4].
Note that the order of the elements may not be the same.

1. What will be the output of the following Python code?
s1={3, 4}
s2={1, 2}
s3=set()
i=0
j=0
for i **in** s1:
    for j **in** s2:
        s3.add((i,j))
        i+=1
        j+=1
print(s3)
a) {(3, 4), (1, 2)}
b) Error
c) {(4, 2), (3, 1), (4, 1), (5, 2)}
d) {(3, 1), (4, 2)}
View Answer

Answer: c

Explanation: The code shown above finds the Cartesian product of the two sets, s1 and s2. The Cartesian product of these two sets is stored in a third set, that is, s3. Hence the output of this code is: {(4, 2), (3, 1), (4, 1), (5, 2)}.

2. The _____ function removes the first element of a set and the last element of a list.
a) remove
b) pop
c) discard
d) dispose

View Answer

Answer: b

Explanation: The function pop removes the first element when used on a set and the last element when used to a list.

3. The difference between the functions discard and remove is that:
a) Discard removes the last element of the set whereas remove removes the first element of the set
b) Discard throws an error if the specified element is not present in the set whereas remove does not throw an error in case of absence of the specified element
c) Remove removes the last element of the set whereas discard removes the first element of the set
d) Remove throws an error if the specified element is not present in the set whereas discard does not throw an error in case of absence of the specified element

View Answer

Answer: d

Explanation: The function remove removes the element if it is present in the set. If the element is not present, it throws an error. The function discard removes the element if it is present in the set. If the element is not present, no action is performed (Error is not thrown).

4. What will be the output of the following Python code?
s1={1, 2, 3}
s2={3, 4, 5, 6}
s1.difference(s2)
s2.difference(s1)
a)
advertisement
{1, 2}
{4, 5, 6}
b)
{1, 2}
{1, 2}
c)
{4, 5, 6}
{1, 2}
d)
{4, 5, 6}

{4, 5, 6}
View Answer

Answer: a

Explanation: The function s1.difference(s2) returns a set containing the elements which are present in the set s1 but not in the set s2. Similarly, the function s2.difference(s1) returns a set containing elements which are present in the set s2 but not in the set s1. Hence the output of the code shown above will be:

{1, 2}
{4, 5, 6}.

5. What will be the output of the following Python code?
s1={1, 2, 3}
s2={4, 5, 6}
s1.isdisjoint(s2)
s2.isdisjoint(s1)
a)
True
False
b)
False
True
c)
True
True
d)
False
False
View Answer

Answer: c

Explanation: The function isdisjoint returns true the two sets in question are disjoint, that is if they do not have even a single element in common. The two sets s1 and s2 do not have any elements in common, hence true is returned in both the cases.

6. If we have two sets, s1 and s2, and we want to check if all the elements of s1 are present in s2 or not, we can use the function:
a) s2.issubset(s1)
b) s2.issuperset(s1)
c) s1.issuperset(s2)
d) s1.isset(s2)
View Answer

Answer: b

Explanation: Since we are checking whether all the elements present in the set s1 are present in

the set s2. This means that s1 is the subset and s1 is the superset. Hence the function to be used is: s2.issuperset(s1). This operation can also be performed by the function: s1.issubset(s2).

7. What will be the output of the following Python code?
```
s1={1, 2, 3, 8}
s2={3, 4, 5, 6}
s1|s2
s1.union(s2)
```
a)
{3}
{1, 2, 3, 4, 5, 6, 8}
b)
{1, 2, 4, 5, 6, 8}
{1, 2, 4, 5, 6, 8}
c)
{3}
{3}
d)
{1, 2, 3, 4, 5, 6, 8}
{1, 2, 3, 4, 5, 6, 8}
View Answer
Answer: d
Explanation: The function s1|s2 as well as the function s1.union(s2) returns a union of the two sets s1 and s2. Hence the output of both of these functions is: {1, 2, 3, 4, 5, 6, 8}.

8. What will be the output of the following Python code?
```
a=set('abc')
b=set('def')
b.intersection_update(a)
a
b
```
a)
set()
('e', 'd', 'f'}
b)
{}
{}
c)
{'b', 'c', 'a'}
set()
d)
set()
set()
View Answer

Answer: c

Explanation: The function b.intersection_update(a) puts those elements in the set b which are common to both the sets a and b. The set a remains as it is. Since there are no common elements between the sets a and b, the output is:

'b', 'c', 'a'}

set().

9. What will be the output of the following Python code, if s1= {1, 2, 3}?

s1.issubset(s1)

a) True

b) Error

c) No output

d) False

View Answer

10. What will be the output of the following Python code?

x=set('abcde')

y=set('xyzbd')

x.difference_update(y)

x

y

a)

  {'a', 'b', 'c', 'd', 'e'}

  {'x', 'y', 'z'}

b)

  {'a', 'c', 'e'}

  {'x', 'y', 'z', 'b', 'd'}

c)

  {'b', 'd'}

  {'b', 'd'}

d)

  {'a', 'c', 'e'}

  {'x', 'y', 'z'}

View Answer

Answer: b

Explanation: The function x.difference_update(y) removes all the elements of the set y from the set x. Hence the output of the code is:

{'a', 'c', 'e'}

{'x', 'y', 'z', 'b', 'd'}.

1. Which of the following statements create a dictionary?

a) d = {}

b) d = {"john":40, "peter":45}

c) d = {40:"john", 45:"peter"}

d) All of the mentioned

View Answer

Answer: d

Explanation: Dictionaries are created by specifying keys and values.

2. What will be the output of the following Python code snippet?

```
1.  d = {"john":40, "peter":45}
```

a) "john", 40, 45, and "peter"

b) "john" and "peter"

c) 40 and 45

d) d = (40:"john", 45:"peter")

View Answer

Answer: b

Explanation: Dictionaries appear in the form of keys and values.

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3. What will be the output of the following Python code snippet?

```
1.  d = {"john":40, "peter":45}
2.  "john" in d
```

a) True

b) False

c) None

d) Error

View Answer

Answer: a

Explanation: In can be used to check if the key is int dictionary.

4. What will be the output of the following Python code snippet?

```
1.  d1 = {"john":40, "peter":45}
2.  d2 = {"john":466, "peter":45}
3.  d1 == d2
```

a) True

b) False

c) None

d) Error

View Answer

Answer: b

Explanation: If d2 was initialized as d2 = d1 the answer would be true.

5. What will be the output of the following Python code snippet?

```
1.  d1 = {"john":40, "peter":45}
2.  d2 = {"john":466, "peter":45}
3.  d1 > d2
```

a) True

b) False

c) Error

d) None

View Answer

Answer: c

Explanation: Arithmetic > operator cannot be used with dictionaries.

6. What will be the output of the following Python code snippet?

```
1.  d = {"john":40, "peter":45}
2.  d["john"]
```

a) 40
b) 45
c) "john"
d) "peter"

View Answer

Answer: a

Explanation: Execute in the shell to verify.

7. Suppose d = {"john":40, "peter":45}, to delete the entry for "john" what command do we use?

a) d.delete("john":40)
b) d.delete("john")
c) del d["john"]
d) del d("john":40)

View Answer

Answer: c

Explanation: Execute in the shell to verify.

8. Suppose d = {"john":40, "peter":45}. To obtain the number of entries in dictionary which command do we use?

a) d.size()
b) len(d)
c) size(d)
d) d.len()

View Answer

Answer: b

Explanation: Execute in the shell to verify.

9. What will be the output of the following Python code snippet?

```
1.  d = {"john":40, "peter":45}
2.  print(list(d.keys()))
```

a) ["john", "peter"]
b) ["john":40, "peter":45]
c) ("john", "peter")
d) ("john":40, "peter":45)

View Answer

Answer: a

Explanation: The output of the code shown above is a list containing only keys of the dictionary d, in the form of a list.

10. Suppose d = {"john":40, "peter":45}, what happens when we try to retrieve a value using the expression d["susan"]?

a) Since "susan" is not a value in the set, Python raises a KeyError exception

b) It is executed fine and no exception is raised, and it returns None
c) Since "susan" is not a key in the set, Python raises a KeyError exception
d) Since "susan" is not a key in the set, Python raises a syntax error
View Answer

Answer: c
Explanation: Execute in the shell to verify.

1. Which of these about a dictionary is false?
a) The values of a dictionary can be accessed using keys
b) The keys of a dictionary can be accessed using values
c) Dictionaries aren't ordered
d) Dictionaries are mutable
View Answer

Answer: b
Explanation: The values of a dictionary can be accessed using keys but the keys of a dictionary can't be accessed using values.

2. Which of the following is not a declaration of the dictionary?
a) {1: 'A', 2: 'B'}
b) dict([[1,"A"],[2,"B"]])
c) {1,"A",2"B"}
d) { }
View Answer

Answer: c
Explanation: Option c is a set, not a dictionary.

3. What will be the output of the following Python code snippet?
advertisement
a={1:"A",2:"B",3:"C"}
for i,j **in** a.items():
   print(i,j,end=" ")
a) 1 A 2 B 3 C
b) 1 2 3
c) A B C
d) 1:"A" 2:"B" 3:"C"
View Answer

Answer: a
Explanation: In the above code, variables i and j iterate over the keys and values of the dictionary respectively.

4. What will be the output of the following Python code snippet?
a={1:"A",2:"B",3:"C"}
print(a.get(1,4))
a) 1
b) A
c) 4
d) Invalid syntax for get method
View Answer

Answer: b

Explanation: The get() method returns the value of the key if the key is present in the dictionary and the default value(second parameter) if the key isn't present in the dictionary.

5. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
print(a.get(5,4))
```

a) Error, invalid syntax
b) A
c) 5
d) 4
View Answer

Answer: d

Explanation: The get() method returns the default value(second parameter) if the key isn't present in the dictionary.

6. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
print(a.setdefault(3))
```

a) {1: 'A', 2: 'B', 3: 'C'}
b) C
c) {1: 3, 2: 3, 3: 3}
d) No method called setdefault() exists for dictionary
View Answer

Answer: b

Explanation: setdefault() is similar to get() but will set dict[key]=default if key is not already in the dictionary.

7. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
a.setdefault(4,"D")
print(a)
```

a) {1: 'A', 2: 'B', 3: 'C', 4: 'D'}
b) None
c) Error
d) [1,3,6,10]
View Answer

Answer: a

Explanation: setdefault() will set dict[key]=default if key is not already in the dictionary.

8. What will be the output of the following Python code?

```
a={1:"A",2:"B",3:"C"}
b={4:"D",5:"E"}
a.update(b)
print(a)
```

a) {1: 'A', 2: 'B', 3: 'C'}
b) Method update() doesn't exist for dictionaries
c) {1: 'A', 2: 'B', 3: 'C', 4: 'D', 5: 'E'}

d) {4: 'D', 5: 'E'}
View Answer
Answer: c
Explanation: update() method adds dictionary b's key-value pairs to dictionary a. Execute in python shell to verify.
9. What will be the output of the following Python code?
a={1:"A",2:"B",3:"C"}
b=a.copy()
b[2]="D"
print(a)
a) Error, copy() method doesn't exist for dictionaries
b) {1: 'A', 2: 'B', 3: 'C'}
c) {1: 'A', 2: 'D', 3: 'C'}
d) "None" is printed
View Answer
Answer: b
Explanation: Changes made in the copy of the dictionary isn't reflected in the original one.
10. What will be the output of the following Python code?
a={1:"A",2:"B",3:"C"}
a.clear()
print(a)
a) None
b) { None:None, None:None, None:None}
c) {1:None, 2:None, 3:None}
d) { }
View Answer
Answer: d
Explanation: The clear() method clears all the key-value pairs in the dictionary.
11. Which of the following isn't true about dictionary keys?
a) More than one key isn't allowed
b) Keys must be immutable
c) Keys must be integers
d) When duplicate keys encountered, the last assignment wins
View Answer
Answer: c
Explanation: Keys of a dictionary may be any data type that is immutable.
12. What will be the output of the following Python code?
a={1:5,2:3,3:4}
a.pop(3)
print(a)
a) {1: 5}
b) {1: 5, 2: 3}
c) Error, syntax error for pop() method

d) {1: 5, 3: 4}

View Answer

Answer: b

Explanation: pop() method removes the key-value pair for the key mentioned in the pop() method.

13. What will be the output of the following Python code?

a={1:5,2:3,3:4}

print(a.pop(4,9))

a) 9

b) 3

c) Too many arguments for pop() method

d) 4

View Answer

Answer: a

Explanation: pop() method returns the value when the key is passed as an argument and otherwise returns the default value(second argument) if the key isn't present in the dictionary.

14. What will be the output of the following Python code?

a={1:"A",2:"B",3:"C"}

for i **in** a:

    print(i,end=" ")

a) 1 2 3

b) 'A' 'B' 'C'

c) 1 'A' 2 'B' 3 'C'

d) Error, it should be: for i in a.items():

View Answer

Answer: a

Explanation: The variable i iterates over the keys of the dictionary and hence the keys are printed.

15. What will be the output of the following Python code?

>>> a={1:"A",2:"B",3:"C"}

>>> a.items()

a) Syntax error

b) dict_items([('A'), ('B'), ('C')])

c) dict_items([(1,2,3)])

d) dict_items([(1, 'A'), (2, 'B'), (3, 'C')])

View Answer

Answer: d

Explanation: The method items() returns list of tuples with each tuple having a key-value pair.

1. Which of the statements about dictionary values if false?

a) More than one key can have the same value

b) The values of the dictionary can be accessed as dict[key]

c) Values of a dictionary must be unique

d) Values of a dictionary can be a mixture of letters and numbers

View Answer

Answer: c

Explanation: More than one key can have the same value.

2. What will be the output of the following Python code snippet?

```
>>> a={1:"A",2:"B",3:"C"}
>>> del a
```

a) method del doesn't exist for the dictionary
b) del deletes the values in the dictionary
c) del deletes the entire dictionary
d) del deletes the keys in the dictionary

View Answer

Answer: c

Explanation: del deletes the entire dictionary and any further attempt to access it will throw an error.

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3. If a is a dictionary with some key-value pairs, what does a.popitem() do?

a) Removes an arbitrary element
b) Removes all the key-value pairs
c) Removes the key-value pair for the key given as an argument
d) Invalid method for dictionary

View Answer

Answer: a

Explanation: The method popitem() removes a random key-value pair.

4. What will be the output of the following Python code snippet?

```
total={}
def insert(items):
    if items in total:
        total[items] += 1
    else:
        total[items] = 1
insert('Apple')
insert('Ball')
insert('Apple')
print (len(total))
```

a) 3
b) 1
c) 2
d) 0

View Answer

Answer: c

Explanation: The insert() function counts the number of occurrences of the item being inserted into the dictionary. There are only 2 keys present since the key 'Apple' is repeated. Thus, the length of the dictionary is 2.

5. What will be the output of the following Python code snippet?

```
a = {}
```

```
a[1] = 1
a['1'] = 2
a[1]=a[1]+1
count = 0
for i in a:
    count += a[i]
print(count)
```
a) 1
b) 2
c) 4
d) Error, the keys can't be a mixture of letters and numbers
View Answer
Answer: c
Explanation: The above piece of code basically finds the sum of the values of keys.
6. What will be the output of the following Python code snippet?
```
numbers = {}
letters = {}
comb = {}
numbers[1] = 56
numbers[3] = 7
letters[4] = 'B'
comb['Numbers'] = numbers
comb['Letters'] = letters
print(comb)
```
a) Error, dictionary in a dictionary can't exist
b) 'Numbers': {1: 56, 3: 7}
c) {'Numbers': {1: 56}, 'Letters': {4: 'B'}}
d) {'Numbers': {1: 56, 3: 7}, 'Letters': {4: 'B'}}
View Answer
Answer: d
Explanation: Dictionary in a dictionary can exist.
7. What will be the output of the following Python code snippet?
```
test = {1:'A', 2:'B', 3:'C'}
test = {}
print(len(test))
```
a) 0
b) None
c) 3
d) An exception is thrown
View Answer
Answer: a
Explanation: In the second line of code, the dictionary becomes an empty dictionary. Thus, length=0.
8. What will be the output of the following Python code snippet?
```

```
test = {1:'A', 2:'B', 3:'C'}
del test[1]
test[1] = 'D'
del test[2]
print(len(test))
```
a) 0
b) 2
c) Error as the key-value pair of 1:'A' is already deleted
d) 1

View Answer

Answer: b

Explanation: After the key-value pair of 1:'A' is deleted, the key-value pair of 1:'D' is added.

9. What will be the output of the following Python code snippet?

```
a = {}
a[1] = 1
a['1'] = 2
a[1.0]=4
count = 0
for i in a:
    count += a[i]
print(count)
```
a) An exception is thrown
b) 3
c) 6
d) 2

View Answer

Answer: c

Explanation: The value of key 1 is 4 since 1 and 1.0 are the same. Then, the function count() gives the sum of all the values of the keys (2+4).

10. What will be the output of the following Python code snippet?

```
a={}
a['a']=1
a['b']=[2,3,4]
print(a)
```
a) Exception is thrown
b) {'b': [2], 'a': 1}
c) {'b': [2], 'a': [3]}
d) {'b': [2, 3, 4], 'a': 1}

View Answer

Answer: d

Explanation: Mutable members can be used as the values of the dictionary but they cannot be used as the keys of the dictionary.

11. What will be the output of the following Python code snippet?

```
>>>import collections
```

>>> a=collections.Counter([1,1,2,3,3,4,4,4])
>>> a
a) {1,2,3,4}
b) Counter({4, 1, 3, 2})
c) Counter({4: 3, 1: 2, 3: 2, 2: 1})
d) {4: 3, 1: 2, 3: 2, 2: 1}
View Answer

Answer: c
Explanation: The statement a=collections.OrderedDict() generates a dictionary with the number as the key and the count of times the number appears as the value.

12. What will be the output of the following Python code snippet?
>>>**import** collections
>>> b=collections.Counter([2,2,3,4,4,4])
>>> b.most_common(1)
a) Counter({4: 3, 2: 2, 3: 1})
b) {3:1}
c) {4:3}
d) [(4, 3)]
View Answer

Answer: d
Explanation: The most_common() method returns the n number key-value pairs where the value is the most recurring.

13. What will be the output of the following Python code snippet?
>>>**import** collections
>>> b=collections.Counter([2,2,3,4,4,4])
>>> b.most_common(1)
a) Counter({4: 3, 2: 2, 3: 1})
b) {3:1}
c) {4:3}
d) [(4, 3)]
View Answer

Answer: d
Explanation: The most_common() method returns the n number key-value pairs where the value is the most recurring.

14. What will be the output of the following Python code snippet?
>>> **import** collections
>>> a=collections.Counter([2,2,3,3,3,4])
>>> b=collections.Counter([2,2,3,4,4])
>>> a|b
a) Counter({3: 3, 2: 2, 4: 2})
b) Counter({2: 2, 3: 1, 4: 1})
c) Counter({3: 2})
d) Counter({4: 1})
View Answer

Answer: a

Explanation: a|b returns the pair of keys and the highest recurring value.

15. What will be the output of the following Python code snippet?

>>> **import** collections

>>> a=collections.Counter([3,3,4,5])

>>> b=collections.Counter([3,4,4,5,5,5])

>>> a&b

a) Counter({3: 12, 4: 1, 5: 1})

b) Counter({3: 1, 4: 1, 5: 1})

c) Counter({4: 2})

d) Counter({5: 1})

View Answer

Answer: b

Explanation: a&b returns the pair of keys and the lowest recurring value.

1. The following Python code is invalid.

class demo(dict):

  def __test__(self,key):

    return []

a = demo()

a['test'] = 7

print(a)

a) True

b) False

View Answer

Answer: b

Explanation: The output of the code is: {'test':7}.

advertisement

2. What will be the output of the following Python code?

count={}

count[(1,2,4)] = 5

count[(4,2,1)] = 7

count[(1,2)] = 6

count[(4,2,1)] = 2

tot = 0

for i **in** count:

   tot=tot+count[i]

print(len(count)+tot)

a) 25

b) 17

c) 16

d) Tuples can't be made keys of a dictionary

View Answer

Answer: c

Explanation: Tuples can be made keys of a dictionary. Length of the dictionary is 3 as the value of the key (4,2,1) is modified to 2. The value of the variable tot is 5+6+2=13.

3. What will be the output of the following Python code?

```
a={}
a[2]=1
a[1]=[2,3,4]
print(a[1][1])
```

a) [2,3,4]
b) 3
c) 2
d) An exception is thrown

View Answer

Answer: b

Explanation: Now, a={1:[2,3,4],2:1} . a[1][1] refers to second element having key 1.

4. What will be the output of the following Python code?

```
>>> a={'B':5,'A':9,'C':7}
>>> sorted(a)
```

a) ['A','B','C']
b) ['B','C','A']
c) [5,7,9]
d) [9,5,7]

View Answer

Answer: a

Explanation: Return a new sorted list of keys in the dictionary.

5. What will be the output of the following Python code?

```
>>> a={i: i*i for i in range(6)}
>>> a
```

a) Dictionary comprehension doesn't exist
b) {0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6:36}
c) {0: 0, 1: 1, 4: 4, 9: 9, 16: 16, 25: 25}
d) {0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25}

View Answer

Answer: d

Explanation: Dictionary comprehension is implemented in the above piece of code.

6. What will be the output of the following Python code?

```
>>> a={}
>>> a.fromkeys([1,2,3],"check")
```

a) Syntax error
b) {1:"check",2:"check",3:"check"}
c) "check"
d) {1:None,2:None,3:None}

View Answer

Answer: b

Explanation: The dictionary takes values of keys from the list and initializes it to the default value (value given in the second parameter). Execute in Python shell to verify.

7. What will be the output of the following Python code?

```
>>> b={}
>>> all(b)
```

a) { }
b) False
c) True
d) An exception is thrown

View Answer

Answer: c

Explanation: Function all() returns True if all keys of the dictionary are true or if the dictionary is empty.

8. If b is a dictionary, what does any(b) do?

a) Returns True if any key of the dictionary is true
b) Returns False if dictionary is empty
c) Returns True if all keys of the dictionary are true
d) Method any() doesn't exist for dictionary

View Answer

Answer: a

Explanation: Method any() returns True if any key of the dictionary is true and False if the dictionary is empty.

9. What will be the output of the following Python code?

```
>>> a={"a":1,"b":2,"c":3}
>>> b=dict(zip(a.values(),a.keys()))
>>> b
```

a) {'a': 1, 'b': 2, 'c': 3}
b) An exception is thrown
c) {'a': 'b': 'c': }
d) {1: 'a', 2: 'b', 3: 'c'}

View Answer

Answer: d

Explanation: The above piece of code inverts the key-value pairs in the dictionary.

10. What will be the output of the following Python code?

```
>>> a={i: 'A' + str(i) for i in range(5)}
>>> a
```

a) An exception is thrown
b) {0: 'A0', 1: 'A1', 2: 'A2', 3: 'A3', 4: 'A4'}
c) {0: 'A', 1: 'A', 2: 'A', 3: 'A', 4: 'A'}
d) {0: '0', 1: '1', 2: '2', 3: '3', 4: '4'}

View Answer

Answer: b

Explanation: Dictionary comprehension and string concatenation is implemented in the above piece of code.

11. What will be the output of the following Python code?

```
>>> a=dict()
>>> a[1]
```

a) An exception is thrown since the dictionary is empty
b) ' '
c) 1
d) 0

View Answer

Answer: a

Explanation: The values of a dictionary can be accessed through the keys only if the keys exist in the dictionary.

12. What will be the output of the following Python code?

```
>>> import collections
>>> a=dict()
>>> a=collections.defaultdict(int)
>>> a[1]
```

a) 1
b) 0
c) An exception is thrown
d) ' '

View Answer

Answer: b

Explanation: The statement a=collections.defaultdict(int) gives the default value of 0 (since int data type is given within the parenthesis) even if the keys don't exist in the dictionary.

13. What will be the output of the following Python code?

```
>>> import collections
>>> a=dict()
>>> a=collections.defaultdict(str)
>>> a['A']
```

a) An exception is thrown since the dictionary is empty
b) ' '
c) 'A'
d) 0

View Answer

Answer: b

Explanation: The statement a=collections.defaultdict(str) gives the default value of ' ' even if the keys don't exist in the dictionary.

14. What will be the output of the following Python code?

```
>>> import collections
>>> b=dict()
>>> b=collections.defaultdict(lambda: 7)
```

>>> b[4]
a) 4
b) 0
c) An exception is thrown
d) 7
View Answer
Answer: d
Explanation: The statement a=collections.defaultdict(lambda: x) gives the default value of x even if the keys don't exist in the dictionary.

15. What will be the output of the following Python code?
>>> **import** collections
>>> a=collections.OrderedDict((str(x),x) **for** x **in** range(3))
>>> a
a) {'2':2, '0':0, '1':1}
b) OrderedDict([('0', 0), ('1', 1), ('2', 2)])
c) An exception is thrown
d) ' '
View Answer
Answer: b
Explanation: The line of code a=collections.OrderedDict() generates a dictionary satisfying the conditions given within the parenthesis and in an ascending order of the keys.

1. Which of the following functions is a built-in function in python?
a) seed()
b) sqrt()
c) factorial()
d) print()
View Answer
Answer: d
Explanation: The function seed is a function which is present in the random module. The functions sqrt and factorial are a part of the math module. The print function is a built-in function which prints a value directly to the system output.

2. What will be the output of the following Python expression?
round(4.576)
a) 4.5
b) 5
c) 4
d) 4.6
View Answer
Answer: b
Explanation: This is a built-in function which rounds a number to give precision in decimal digits. In the above case, since the number of decimal places has not been specified, the decimal number is rounded off to a whole number. Hence the output will be 5.

3. The function pow(x,y,z) is evaluated as:
a) (x**y)**z
b) (x**y) / z
c) (x**y) % z
d) (x**y)*z
View Answer

Answer: c

Explanation: The built-in function pow() can accept two or three arguments. When it takes in two arguments, they are evaluated as x**y. When it takes in three arguments, they are evaluated as (x**y)%z.

4. What will be the output of the following Python function?
all([2,4,0,6])
a) Error
b) True
c) False
d) 0
View Answer

Answer: c

Explanation: The function all returns false if any one of the elements of the iterable is zero and true if all the elements of the iterable are non zero. Hence the output of this function will be false.

5. What will be the output of the following Python expression?
round(4.5676,2)?
a) 4.5
b) 4.6
c) 4.57
d) 4.56
View Answer

Answer: c

Explanation: The function round is used to round off the given decimal number to the specified decimal places. In this case, the number should be rounded off to two decimal places. Hence the output will be 4.57.

6. What will be the output of the following Python function?
any([2>8, 4>2, 1>2])
a) Error
b) True
c) False
d) 4>2
View Answer

Answer: b

Explanation: The built-in function any() returns true if any or more of the elements of the iterable is true (non zero), If all the elements are zero, it returns false.

7. What will be the output of the following Python function?
import math

abs(math.sqrt(25))
a) Error
b) -5
c) 5
d) 5.0
View Answer

Answer: d
Explanation: The abs() function prints the absolute value of the argument passed. For example: abs(-5)=5. Hence, in this case we get abs(5.0)=5.0.
8. What will be the output of the following Python function?
sum(2,4,6)
sum([1,2,3])
a) Error, 6
b) 12, Error
c) 12, 6
d) Error, Error
View Answer

Answer: a
Explanation: The first function will result in an error because the function sum() is used to find the sum of iterable numbers. Hence the outcomes will be Error and 6 respectively.
9. What will be the output of the following Python function?
all(3,0,4.2)
a) True
b) False
c) Error
d) 0
View Answer

Answer: c
Explanation: The function all() returns 'True' if any one or more of the elements of the iterable are non zero. In the above case, the values are not iterable, hence an error is thrown.
10. What will be the output of the following Python function?
min(max(False,-3,-4), 2,7)
a) 2
b) False
c) -3
d) -4
View Answer

Answer: b
Explanation: The function max() is being used to find the maximum value from among -3, -4 and false. Since false amounts to the value zero, hence we are left with min(0, 2, 7) Hence the output is 0 (false).
1. What will be the output of the following Python functions?
chr('97')
chr(97)

a)

  a

  Error

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b)

  'a'

  a

c)

  Error

  a

d)

  Error

  Error

View Answer

Answer: c

Explanation: The built-in function chr() returns the alphabet corresponding to the value given as an argument. This function accepts only integer type values. In the first function, we have passed a string. Hence the first function throws an error.

2. What will be the output of the following Python function?

complex(1+2j)

a) Error

b) 1

c) 2j

d) 1+2j

View Answer

Answer: d

Explanation: The built-in function complex() returns the argument in a complex form. Hence the output of the function shown above will be 1+2j.

3. What is the output of the function complex()?

a) 0j

b) 0+0j

c) 0

d) Error

View Answer

Answer: a

Explanation: The complex function returns 0j if both of the arguments are omitted, that is, if the function is in the form of complex() or complex(0), then the output will be 0j.

4. The function divmod(a,b), where both 'a' and 'b' are integers is evaluated as:

a) (a%b, a//b)

b) (a//b, a%b)

c) (a//b, a*b)

d) (a/b, a%b)
View Answer
Answer: b
Explanation: The function divmod(a,b) is evaluated as a//b, a%b, if both 'a' and 'b' are integers.
5. What will be the output of the following Python function?
divmod(10.5,5)
divmod(2.4,1.2)
a)
(2.00, 0.50)
(2.00, 0.00)
b)
(2, 0.5)
(2, 0)
c)
(2.0, 0.5)
(2.0, 0.0)
d)
(2, 0.5)
(2)
View Answer
Answer: c
Explanation: See python documentation for the function divmod.

6. The function complex('2-3j') is valid but the function complex('2 – 3j') is invalid.
a) True
b) False
View Answer
Answer: a
Explanation: When converting from a string, the string must not contain any blank spaces around the + or – operator. Hence the function complex('2 – 3j') will result in an error.
7. What will be the output of the following Python function?
list(enumerate([2, 3]))
a) Error
b) [(1, 2), (2, 3)]
c) [(0, 2), (1, 3)]
d) [(2, 3)]
View Answer
Answer: c
Explanation: The built-in function enumerate() accepts an iterable as an argument. The function shown in the above case returns containing pairs of the numbers given, starting from 0. Hence the output will be: [(0, 2), (1,3)].
8. What will be the output of the following Python functions?
x=3

eval('x^2')
a) Error
b) 1
c) 9
d) 6
View Answer
Answer: b
Explanation: The function eval is use to evaluate the expression that it takes as an argument. In the above case, the eval() function is used to perform XOR operation between 3 and 2. Hence the output is 1.
9. What will be the output of the following Python functions?
float('1e-003')
float('2e+003')
a)
3.00
300
b)
0.001
2000.0
c)
0.001
200
d)
Error
2003
View Answer
Answer: b
Explanation: The output of the first function will be 0.001 and that of the second function will be 2000.0. The first function created a floating point number up to 3 decimal places and the second function adds 3 zeros after the given number.

10. Which of the following functions does not necessarily accept only iterables as arguments?
a) enumerate()
b) all()
c) chr()
d) max()
View Answer
Answer: c
Explanation: The functions enumerate(), all() and max() accept iterables as arguments whereas the function chr() throws an error on receiving an iterable as an argument. Also note that the function chr() accepts only integer values.
1. Which of the following functions accepts only integers as arguments?
a) ord()

b) min()
c) chr()
d) any()
View Answer

Answer: c

Explanation: The function chr() accepts only integers as arguments. The function ord() accepts only strings. The functions min() and max() can accept floating point as well as integer arguments.

2. Suppose there is a list such that: l=[2,3,4]. If we want to print this list in reverse order, which of the following methods should be used?
a) reverse(l)
b) list(reverse[(l)])
c) reversed(l)
d) list(reversed(l))
View Answer

Answer: d

Explanation: The built-in function reversed() can be used to reverse the elements of a list. This function accepts only an iterable as an argument. To print the output in the form of a list, we use: list(reversed(l)). The output will be: [4,3,2].

3. What will be the output of the following Python function?
advertisement
float('   -12345\n')
(Note that the number of blank spaces before the number is 5)
 -12345.0 (5 blank spaces before the number)   a)
b) -12345.0
c) Error
d) -12345.000000000…. (infinite decimal places)
View Answer

Answer: b

Explanation: The function float() will remove all the blank spaces and convert the integer to a floating point number. Hence the output will be: -12345.0.

4. What will be the output of the following Python function?
ord(65)
ord('A')
a)
A
65
b)
Error
65
c)
A
Error
d)

Error
Error
View Answer
Answer: b
Explanation: The built-in function ord() is used to return the ASCII value of the alphabet passed to it as an argument. Hence the first function results in an error and the output of the second function is 65.

5. What will be the output of the following Python function?
float('-infinity')
float('inf')
a)
–inf
inf
b)
–infinity
inf
c)
Error
Error
d)
Error
Junk value
View Answer
Answer: a
Explanation: The output of the first function will be –inf and that of the second function will be inf.

6. Which of the following functions will not result in an error when no arguments are passed to it?
a) min()
b) divmod()
c) all()
d) float()
View Answer
Answer: d
Explanation: The built-in functions min(), max(), divmod(), ord(), any(), all() etc throw an error when no arguments are passed to them. However there are some built-in functions like float(), complex() etc which do not throw an error when no arguments are passed to them. The output of float() is 0.0.
7. What will be the output of the following Python function?
hex(15)

a) f
b) 0xF
c) 0Xf
d) 0xf
View Answer
Answer: d
Explanation: The function hex() is used to convert the given argument into its hexadecimal representation, in lower case. Hence the output of the function hex(15) is 0xf.
8. Which of the following functions does not throw an error?
a) ord()
b) ord(' ')
c) ord(")
d) ord("")
View Answer
Answer: b
Explanation: The function ord() accepts a character. Hence ord(), ord(") and ord("") throw errors. However the function ord(' ') does not throw an error because in this case, we are actually passing a blank space as an argument. The output of ord(' ') is 32 (ASCII value corresponding to blank space).
9. What will be the output of the following Python function?
len(["hello",2, 4, 6])
a) 4
b) 3
c) Error
d) 6
View Answer
Answer: a
Explanation: The function len() returns the length of the number of elements in the iterable. Therefore the output of the function shown above is 4.
10. What will be the output of the following Python function?
oct(7)
oct('7')
a)
Error
07
b)
0o7
Error
c)
0o7
Error
d)
07
0o7

View Answer

Answer: c

Explanation: The function oct() is used to convert its argument into octal form. This function does not accept strings. Hence the second function results in an error while the output of the first function is 0o7.

1. Which of the following is the use of function in python?

a) Functions are reusable pieces of programs

b) Functions don't provide better modularity for your application

c) you can't also create your own functions

d) All of the mentioned

View Answer

Answer: a

Explanation: Functions are reusable pieces of programs. They allow you to give a name to a block of statements, allowing you to run that block using the specified name anywhere in your program and any number of times.

2. Which keyword is used for function?

a) Fun

b) Define

c) Def

d) Function

View Answer

Answer: c

Explanation: None.

3. What will be the output of the following Python code?

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```
1.  def sayHello():
2.     print('Hello World!')
3.  sayHello()
4.  sayHello()
```

a)
Hello World!
Hello World!

b)
'Hello World!'
'Hello World!'

c)
Hello
Hello

d) None of the mentioned

View Answer

Answer: a

Explanation: Functions are defined using the def keyword. After this keyword comes an identifier name for the function, followed by a pair of parentheses which may enclose some

names of variables, and by the final colon that ends the line. Next follows the block of statements that are part of this function.

```
1.  def sayHello():
2.      print('Hello World!') # block belonging to the function
3.  # End of function #
4.
5.  sayHello() # call the function
6.  sayHello() # call the function again
```

4. What will be the output of the following Python code?

```
1.  def printMax(a, b):
2.      if a > b:
3.          print(a, 'is maximum')
4.      elif a == b:
5.          print(a, 'is equal to', b)
6.      else:
7.          print(b, 'is maximum')
8.  printMax(3, 4)
```

a) 3
b) 4
c) 4 is maximum
d) None of the mentioned
View Answer

Answer: c

Explanation: Here, we define a function called printMax that uses two parameters called a and b. We find out the greater number using a simple if..else statement and then print the bigger number.

5. What will be the output of the following Python code?

```
1.  x = 50
2.  def func(x):
3.      print('x is', x)
4.      x = 2
5.      print('Changed local x to', x)
6.  func(x)
7.  print('x is now', x)
```

a)
x is 50
Changed local x to 2
x is now 50
b)
x is 50
Changed local x to 2
x is now 2
c)
x is 50

Changed local x to 2
x is now 100
d) None of the mentioned
View Answer

Answer: a

Explanation: The first time that we print the value of the name x with the first line in the function's body, Python uses the value of the parameter declared in the main block, above the function definition.

Next, we assign the value 2 to x. The name x is local to our function. So, when we change the value of x in the function, the x defined in the main block remains unaffected.

With the last print function call, we display the value of x as defined in the main block, thereby confirming that it is actually unaffected by the local assignment within the previously called function.

6. What will be the output of the following Python code?

```
1.  x = 50
2.  def func():
3.      global x
4.      print('x is', x)
5.      x = 2
6.      print('Changed global x to', x)
7.  func()
8.  print('Value of x is', x)
```

a)
x is 50
Changed global x to 2
Value of x is 50
b)
x is 50
Changed global x to 2
Value of x is 2
c)
x is 50
Changed global x to 50
Value of x is 50
d) None of the mentioned
View Answer

Answer: b

Explanation: The global statement is used to declare that x is a global variable – hence, when we assign a value to x inside the function, that change is reflected when we use the value of x in the main block.

7. What will be the output of the following Python code?

```
1.  def say(message, times = 1):
2.      print(message * times)
3.  say('Hello')
```

```
4.  say('World', 5)
```
a)
Hello
WorldWorldWorldWorldWorld
b)
Hello
World 5
c)
Hello
World,World,World,World,World
d)
Hello
HelloHelloHelloHelloHello
View Answer

Answer: a

Explanation: For some functions, you may want to make some parameters optional and use default values in case the user does not want to provide values for them. This is done with the help of default argument values. You can specify default argument values for parameters by appending to the parameter name in the function definition the assignment operator (=) followed by the default value.

The function named say is used to print a string as many times as specified. If we don't supply a value, then by default, the string is printed just once. We achieve this by specifying a default argument value of 1 to the parameter times.

In the first usage of say, we supply only the string and it prints the string once. In the second usage of say, we supply both the string and an argument 5 stating that we want to say the string message 5 times.

8. What will be the output of the following Python code?
```
1.  def func(a, b=5, c=10):
2.      print('a is', a, 'and b is', b, 'and c is', c)
3.
4.  func(3, 7)
5.  func(25, c = 24)
6.  func(c = 50, a = 100)
```
a)
a is 7 and b is 3 and c is 10
a is 25 and b is 5 and c is 24
a is 5 and b is 100 and c is 50
b)
a is 3 and b is 7 and c is 10
a is 5 and b is 25 and c is 24
a is 50 and b is 100 and c is 5
c)

a is 3 and b is 7 and c is 10
a is 25 and b is 5 and c is 24
a is 100 and b is 5 and c is 50
d) None of the mentioned
View Answer

Answer: c

Explanation: If you have some functions with many parameters and you want to specify only some of them, then you can give values for such parameters by naming them – this is called keyword arguments – we use the name (keyword) instead of the position (which we have been using all along) to specify the arguments to the function.
The function named func has one parameter without a default argument value, followed by two parameters with default argument values.
In the first usage, func(3, 7), the parameter a gets the value 3, the parameter b gets the value 7 and c gets the default value of 10.
In the second usage func(25, c=24), the variable a gets the value of 25 due to the position of the argument. Then, the parameter c gets the value of 24 due to naming i.e. keyword arguments. The variable b gets the default value of 5.
In the third usage func(c=50, a=100), we use keyword arguments for all specified values. Notice that we are specifying the value for parameter c before that for a even though a is defined before c in the function definition.

9. What will be the output of the following Python code?

```
1.  def maximum(x, y):
2.      if x > y:
3.          return x
4.      elif x == y:
5.          return 'The numbers are equal'
6.      else:
7.          return y
8.
9.  print(maximum(2, 3))
```

a) 2
b) 3
c) The numbers are equal
d) None of the mentioned
View Answer

Answer: b

Explanation: The maximum function returns the maximum of the parameters, in this case the numbers supplied to the function. It uses a simple if..else statement to find the greater value and then returns that value.

10. Which of the following is a feature of DocString?
a) Provide a convenient way of associating documentation with Python modules, functions, classes, and methods
b) All functions should have a docstring
c) Docstrings can be accessed by the __doc__ attribute on objects

d) All of the mentioned

View Answer

Answer: d

Explanation: Python has a nifty feature called documentation strings, usually referred to by its shorter name docstrings. DocStrings are an important tool that you should make use of since it helps to document the program better and makes it easier to understand.

1. Which are the advantages of functions in python?
a) Reducing duplication of code
b) Decomposing complex problems into simpler pieces
c) Improving clarity of the code
d) All of the mentioned

View Answer

Answer: d

Explanation: None.

2. What are the two main types of functions?
a) Custom function
b) Built-in function & User defined function
c) User function
d) System function

View Answer

Answer: b

Explanation: Built-in functions and user defined ones. The built-in functions are part of the Python language. Examples are: dir(), len() or abs(). The user defined functions are functions created with the def keyword.

3. Where is function defined?
a) Module
b) Class
c) Another function
d) All of the mentioned

View Answer

Answer: d

Explanation: Functions can be defined inside a module, a class or another function.

advertisement

4. What is called when a function is defined inside a class?
a) Module
b) Class
c) Another function
d) Method

View Answer

Answer: d

Explanation: None.

5. Which of the following is the use of id() function in python?
a) Id returns the identity of the object

b) Every object doesn't have a unique id
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: a
Explanation: Each object in Python has a unique id. The id() function returns the object's id.
6. Which of the following refers to mathematical function?
a) sqrt
b) rhombus
c) add
d) rhombus
View Answer

Answer: a
Explanation: Functions that are always available for usage, functions that are contained within external modules, which must be imported and functions defined by a programmer with the def keyword.
Eg: math import sqrt
A sqrt() function is imported from the math module.
7. What will be the output of the following Python code?

```
1.  def cube(x):
2.      return x * x * x
3.  x = cube(3)
4.  print x
```

a) 9
b) 3
c) 27
d) 30
View Answer

Answer: c
Explanation: A function is created to do a specific task. Often there is a result from such a task. The return keyword is used to return values from a function. A function may or may not return a value. If a function does not have a return keyword, it will send a none value.
8. What will be the output of the following Python code?

```
1.  def C2F(c):
2.      return c * 9/5 + 32
3.  print C2F(100)
4.  print C2F(0)
```

a)
212
32
b)
314
24
c)

567
98
d) None of the mentioned
View Answer

Answer: a

Explanation: The code shown above is used to convert a temperature in degree celsius to fahrenheit.

9. What will be the output of the following Python code?

```
1.  def power(x, y=2):
2.      r = 1
3.      for i in range(y):
4.          r = r * x
5.      return r
6.  print power(3)
7.  print power(3, 3)
```

a)
212
32
b)
9
27
c)
567
98
d) None of the mentioned
View Answer

Answer: b

Explanation: The arguments in Python functions may have implicit values. An implicit value is used, if no value is provided. Here we created a power function. The function has one argument with an implicit value. We can call the function with one or two arguments.

10. What will be the output of the following Python code?

```
1.  def sum(*args):
2.      '''Function returns the sum
3.      of all values'''
4.      r = 0
5.      for i in args:
6.          r += i
7.      return r
8.  print sum.__doc__
9.  print sum(1, 2, 3)
10. print sum(1, 2, 3, 4, 5)
```

a)
6
15

b)
6
100
c)
123
12345
d) None of the mentioned
View Answer

Answer: a

Explanation: We use the * operator to indicate, that the function will accept arbitrary number of arguments. The sum() function will return the sum of all arguments. The first string in the function body is called the function documentation string. It is used to document the function. The string must be in triple quotes.

1. Python supports the creation of anonymous functions at runtime, using a construct called _____

a) lambda
b) pi
c) anonymous
d) none of the mentioned
View Answer

Answer: a

Explanation: Python supports the creation of anonymous functions (i.e. functions that are not bound to a name) at runtime, using a construct called lambda. Lambda functions are restricted to a single expression. They can be used wherever normal functions can be used.

2. What will be the output of the following Python code?

```
1.  y = 6
2.  z = lambda x: x * y
3.  print z(8)
```

a) 48
b) 14
c) 64
d) None of the mentioned
View Answer

Answer: a

Explanation: The lambda keyword creates an anonymous function. The x is a parameter, that is passed to the lambda function. The parameter is followed by a colon character. The code next to the colon is the expression that is executed, when the lambda function is called. The lambda function is assigned to the z variable.

The lambda function is executed. The number 8 is passed to the anonymous function and it returns 48 as the result. Note that z is not a name for this function. It is only a variable to which the anonymous function was assigned.

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3. What will be the output of the following Python code?

```
1.  lamb = lambda x: x ** 3
```

2. **print**(lamb(5))

a) 15

b) 555

c) 125

d) None of the mentioned

View Answer

Answer: c

Explanation: None.

4. Does Lambda contains return statements?

a) True

b) False

View Answer

Answer: b

Explanation: lambda definition does not include a return statement. it always contains an expression which is returned. Also note that we can put a lambda definition anywhere a function is expected. We don't have to assign it to a variable at all.

5. Lambda is a statement.

a) True

b) False

View Answer

Answer: b

Explanation: lambda is an anonymous function in Python. Hence this statement is false.

6. Lambda contains block of statements.

a) True

b) False

View Answer

Answer: b

Explanation: None.

7. What will be the output of the following Python code?

```
1.  def f(x, y, z): return x + y + z
2.  f(2, 30, 400)
```

a) 432

b) 24000

c) 430

d) No output

View Answer

Answer: a

Explanation: None.

8. What will be the output of the following Python code?

```
1.  def writer():
2.          title = 'Sir'
3.          name = (lambda x:title + ' ' + x)
4.          return name
5.
```

     6.   who = writer()

     7.   who('Arthur')

a) Arthur Sir

b) Sir Arthur

c) Arthur

d) None of the mentioned

View Answer

Answer: b

Explanation: None.

9. What will be the output of the following Python code?

     1.   L = [**lambda** x: x ** 2,

     2.   **lambda** x: x ** 3,

     3.   **lambda** x: x ** 4]

     4.

     5. **for** f **in** L:

     6.   **print**(f(3))

a)

27

81

343

b)

6

9

12

c)

9

27

81

d) None of the mentioned

View Answer

Answer: c

Explanation: None.

10. What will be the output of the following Python code?

     1.   min = (**lambda** x, y: x **if** x < y **else** y)

     2.   min(101*99, 102*98)

a) 9997

b) 9999

c) 9996

d) None of the mentioned

View Answer

Answer: c

Explanation: None.

1. What is a variable defined outside a function referred to as?

a) A static variable

b) A global variable
c) A local variable
d) An automatic variable
View Answer

Answer: b
Explanation: The value of a variable defined outside all function definitions is referred to as a global variable and can be used by multiple functions of the program.

2. What is a variable defined inside a function referred to as?
a) A global variable
b) A volatile variable
c) A local variable
d) An automatic variable
View Answer

Answer: c
Explanation: The variable inside a function is called as local variable and the variable definition is confined only to that function.

3. What will be the output of the following Python code?
advertisement

```
i=0
def change(i):
    i=i+1
    return i
change(1)
print(i)
```
a) 1
b) Nothing is displayed
c) 0
d) An exception is thrown
View Answer

Answer: c
Explanation: Any change made in to an immutable data type in a function isn't reflected outside the function.

4. What will be the output of the following Python code?
```
def a(b):
    b = b + [5]

c = [1, 2, 3, 4]
a(c)
print(len(c))
```
a) 4
b) 5
c) 1
d) An exception is thrown
View Answer

Answer: b

Explanation: Since a list is mutable, any change made in the list in the function is reflected outside the function.

5. What will be the output of the following Python code?

```
a=10
b=20
def change():
    global b
    a=45
    b=56
change()
print(a)
print(b)
```

a)
10
56
b)
45
56
c)
10
20
d) Syntax Error

View Answer

Answer: a

Explanation: The statement "global b" allows the global value of b to be accessed and changed. Whereas the variable a is local and hence the change isn't reflected outside the function.

6. What will be the output of the following Python code?

```
def change(i = 1, j = 2):
    i = i + j
    j = j + 1
    print(i, j)
change(j = 1, i = 2)
```

a) An exception is thrown because of conflicting values
b) 1 2
c) 3 3
d) 3 2

View Answer

Answer: d

Explanation: The values given during function call is taken into consideration, that is, i=2 and j=1.

7. What will be the output of the following Python code?

```
def change(one, *two):
    print(type(two))
```

change(1,2,3,4)

a) Integer

b) Tuple

c) Dictionary

d) An exception is thrown

View Answer

Answer: b

Explanation: The parameter two is a variable parameter and consists of (2,3,4). Hence the data type is tuple.

8. If a function doesn't have a return statement, which of the following does the function return?

a) int

b) null

c) None

d) An exception is thrown without the return statement

View Answer

Answer: c

Explanation: A function can exist without a return statement and returns None if the function doesn't have a return statement.

9. What will be the output of the following Python code?

```python
def display(b, n):
    while n > 0:
        print(b,end="")
        n=n-1
display('z',3)
```

a) zzz

b) zz

c) An exception is executed

d) Infinite loop

View Answer

Answer: a

Explanation: The loop runs three times and 'z' is printed each time.

10. What will be the output of the following Python code?

```python
def find(a, **b):
    print(type(b))
find('letters',A='1',B='2')
```

a) String

b) Tuple

c) Dictionary

d) An exception is thrown

View Answer

Answer: c

Explanation: b combines the remaining parameters into a dictionary.

1. What is the type of each element in sys.argv?
a) set
b) list
c) tuple
d) string
View Answer

Answer: d
Explanation: It is a list of strings.

2. What is the length of sys.argv?
a) number of arguments
b) number of arguments + 1
c) number of arguments – 1
d) none of the mentioned
View Answer

Answer: b
Explanation: The first argument is the name of the program itself. Therefore the length of sys.argv is one more than the number arguments.

3. What will be the output of the following Python code?
advertisement
def foo(k):
    k[0] = 1
q = [0]
foo(q)
print(q)
a) [0]
b) [1]
c) [1, 0]
d) [0, 1]
View Answer

Answer: b
Explanation: Lists are passed by reference.

4. How are keyword arguments specified in the function heading?
a) one-star followed by a valid identifier
b) one underscore followed by a valid identifier
c) two stars followed by a valid identifier
d) two underscores followed by a valid identifier
View Answer

Answer: c
Explanation: Refer documentation.

5. How many keyword arguments can be passed to a function in a single function call?
a) zero
b) one
c) zero or more

d) one or more

View Answer

Answer: c

Explanation: Zero keyword arguments may be passed if all the arguments have default values.

6. What will be the output of the following Python code?

```python
def foo(fname, val):
    print(fname(val))
foo(max, [1, 2, 3])
foo(min, [1, 2, 3])
```

a) 3 1

b) 1 3

c) error

d) none of the mentioned

View Answer

Answer: a

Explanation: It is possible to pass function names as arguments to other functions.

7. What will be the output of the following Python code?

```python
def foo():
    return total + 1
total = 0
print(foo())
```

a) 0

b) 1

c) error

d) none of the mentioned

View Answer

Answer: b

Explanation: It is possible to read the value of a global variable directly.

8. What will be the output of the following Python code?

```python
def foo():
    total += 1
    return total
total = 0
print(foo())
```

a) 0

b) 1

c) error

d) none of the mentioned

View Answer

Answer: c

Explanation: It is not possible to change the value of a global variable without explicitly specifying it.

9. What will be the output of the following Python code?

```python
def foo(x):
```

```python
    x = ['def', 'abc']
    return id(x)
q = ['abc', 'def']
print(id(q) == foo(q))
```
a) True
b) False
c) None
d) Error

View Answer

Answer: b

Explanation: A new object is created in the function.

10. What will be the output of the following Python code?
```python
def foo(i, x=[]):
    x.append(i)
    return x
for i in range(3):
    print(foo(i))
```
a) [0] [1] [2]
b) [0] [0, 1] [0, 1, 2]
c) [1] [2] [3]
d) [1] [1, 2] [1, 2, 3]

View Answer

Answer: b

Explanation: When a list is a default value, the same list will be reused.

1. What will be the output of the following Python code?
```python
def foo(k):
    k = [1]
q = [0]
foo(q)
print(q)
```
a) [0]
b) [1]
c) [1, 0]
d) [0, 1]

View Answer

Answer: a

Explanation: A new list object is created in the function and the reference is lost. This can be checked by comparing the id of k before and after k = [1].

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2. How are variable length arguments specified in the function heading?
a) one star followed by a valid identifier
b) one underscore followed by a valid identifier
c) two stars followed by a valid identifier

d) two underscores followed by a valid identifier

View Answer

Answer: a

Explanation: Refer documentation.

3. Which module in the python standard library parses options received from the command line?

a) getopt

b) os

c) getarg

d) main

View Answer

Answer: a

Explanation: getopt parses options received from the command line.

4. What is the type of sys.argv?

a) set

b) list

c) tuple

d) string

View Answer

Answer: b

Explanation: It is a list of elements.

5. What is the value stored in sys.argv[0]?

a) null

b) you cannot access it

c) the program's name

d) the first argument

View Answer

Answer: c

Explanation: Refer documentation.

6. How are default arguments specified in the function heading?

a) identifier followed by an equal to sign and the default value

b) identifier followed by the default value within backticks (")

c) identifier followed by the default value within square brackets ([])

d) identifier

View Answer

Answer: a

Explanation: Refer documentation.

7. How are required arguments specified in the function heading?

a) identifier followed by an equal to sign and the default value

b) identifier followed by the default value within backticks (")

c) identifier followed by the default value within square brackets ([])

d) identifier

View Answer

Answer: d

Explanation: Refer documentation.

8. What will be the output of the following Python code?

```python
def foo(x):
    x[0] = ['def']
    x[1] = ['abc']
    return id(x)
q = ['abc', 'def']
print(id(q) == foo(q))
```

a) True
b) False
c) None
d) Error

View Answer

Answer: a

Explanation: The same object is modified in the function.

9. Where are the arguments received from the command line stored?

a) sys.argv
b) os.argv
c) argv
d) none of the mentioned

View Answer

Answer: a

Explanation: Refer documentation.

10. What will be the output of the following Python code?

```python
def foo(i, x=[]):
    x.append(x.append(i))
    return x
for i in range(3):
    y = foo(i)
print(y)
```

a) [[[0]], [[[0]], [1]], [[[0]], [[[0]], [1]], [2]]]
b) [[0], [[0], 1], [[0], [[0], 1], 2]]
c) [0, None, 1, None, 2, None]
d) [[[0]], [[[0]], [1]], [[[0]], [[[0]], [1]], [2]]]

View Answer

Answer: c

Explanation: append() returns None.

1. What will be the output of the following Python code?

```python
def f1():
    x=15
    print(x)
x=12
f1()
```

a) Error
b) 12
c) 15
d) 1512
View Answer

Answer: c
Explanation: In the code shown above, x=15 is a local variable whereas x=12 is a global variable. Preference is given to local variable over global variable. Hence the output of the code shown above is 15.
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2. What will be the output of the following Python code?

```python
def f1():
   x=100
   print(x)
x=+1
f1()
```

a) Error
b) 100
c) 101
d) 99
View Answer

Answer: b
Explanation: The variable x is a local variable. It is first printed and then modified. Hence the output of this code is 100.
3. What will be the output of the following Python code?

```python
def san(x):
   print(x+1)
x=-2
x=4
san(12)
```

a) 13
b) 10
c) 2
d) 5
View Answer

Answer: a
Explanation: The value passed to the function san() is 12. This value is incremented by one and printed. Hence the output of the code shown above is 13.
4. What will be the output of the following Python code?

```python
def f1():
   global x
   x+=1
   print(x)
x=12
```

```
print("x")
```
a) Error
b) 13
c)
13
x
d) x
View Answer
Answer: d
Explanation: In the code shown above, the variable 'x' is declared as global within the function. Hence the output is 'x'. Had the variable 'x' been a local variable, the output would have been:
13
x
5. What will be the output of the following Python code?
```
def f1(x):
    global x
    x+=1
    print(x)
f1(15)
print("hello")
```
a) error
b) hello
c) 16
d)
16
hello
View Answer
Answer: a
Explanation: The code shown above will result in an error because 'x' is a global variable. Had it been a local variable, the output would be: 16
hello

6. What will be the output of the following Python code?
```
x=12
def f1(a,b=x):
    print(a,b)
x=15
f1(4)
```
a) Error
b) 12 4
c) 4 12
d) 4 15
View Answer
```

Answer: c

Explanation: At the time of leader processing, the value of 'x' is 12. It is not modified later. The value passed to the function f1 is 4. Hence the output of the code shown above is 4 12.

7. What will be the output of the following Python code?

```python
def f():
    global a
    print(a)
    a = "hello"
    print(a)
a = "world"
f()
print(a)
```

a)
```
hello
hello
world
```

b)
```
world
hello
hello
```

c)
```
hello
world
world
```

d)
```
world
hello
world
```

View Answer

Answer: b

Explanation: Since the variable 'a' has been explicitly specified as a global variable, the value of a passed to the function is 'world'. Hence the output of this code is:
world
hello
hello

8. What will be the output of the following Python code?

```python
def f1(a,b=[]):
    b.append(a)
    return b
print(f1(2,[3,4]))
```

a) [3,2,4]
b) [2,3,4]

c) Error
d) [3,4,2]
View Answer

Answer: d
Explanation: In the code shown above, the integer 2 is appended to the list [3,4]. Hence the output of the code is [3,4,2]. Both the variables a and b are local variables.

9. What will be the output of the following Python code?

```python
def f(p, q, r):
    global s
    p = 10
    q = 20
    r = 30
    s = 40
    print(p,q,r,s)
p,q,r,s = 1,2,3,4
f(5,10,15)
```

a) 1 2 3 4
b) 5 10 15 4
c) 10 20 30 40
d) 5 10 15 40
View Answer

Answer: c
Explanation: The above code shows a combination of local and global variables. The output of this code is: 10 20 30 40

10. What will be the output of the following Python code?

```python
def f(x):
    print("outer")
    def f1(a):
        print("inner")
    print(a,x)
f(3)
f1(1)
```

a)
outer
error
b)
inner
error
c)
outer
inner
d) error
View Answer

Answer: a

Explanation: The error will be caused due to the statement f1(1) because the function is nested. If f1(1) had been called inside the function, the output would have been different and there would be no error.

11. What will be the output of the following Python code?

```
x = 5
def f1():
    global x
    x = 4
def f2(a,b):
    global x
    return a+b+x
f1()
total = f2(1,2)
print(total)
```

a) Error
b) 7
c) 8
d) 15

View Answer

Answer: b

Explanation: In the code shown above, the variable 'x' has been declared as a global variable under both the functions f1 and f2. The value returned is a+b+x = 1+2+4 = 7.

12. What will be the output of the following Python code?

```
x=100
def f1():
    global x
    x=90
def f2():
    global x
    x=80
print(x)
```

a) 100
b) 90
c) 80
d) Error

View Answer

Answer: a

Explanation: The output of the code shown above is 100. This is because the variable 'x' has been declared as global within the functions f1 and f2.

13. Read the following Python code carefully and point out the global variables?

```
y, z = 1, 2
def f():
    global x
```

```
    x = y+z
```
a) x
b) y and z
c) x, y and z
d) Neither x, nor y, nor z
View Answer

Answer: c
Explanation: In the code shown above, x, y and z are global variables inside the function f. y and z are global because they are not assigned in the function. x is a global variable because it is explicitly specified so in the code. Hence, x, y and z are global variables.

1. Which of the following data structures is returned by the functions globals() and locals()?
a) list
b) set
c) dictionary
d) tuple
View Answer

Answer: c
Explanation: Both the functions, that is, globals() and locals() return value of the data structure dictionary.

2. What will be the output of the following Python code?

```
x=1
def cg():
        global x
        x=x+1
cg()
x
```

a) 2
b) 1
c) 0
d) Error
View Answer

Answer: a
Explanation: Since 'x' has been declared a global variable, it can be modified very easily within the function. Hence the output is 2.

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3. On assigning a value to a variable inside a function, it automatically becomes a global variable.
a) True
b) False
View Answer

Answer: b
Explanation: On assigning a value to a variable inside a function, t automatically becomes a local variable. Hence the above statement is false.

4. What will be the output of the following Python code?

e="butter"
def f(a): **print**(a)+e
f("bitter")
a) error
b)
   butter
   error
c)
   bitter
   error
d) bitterbutter
View Answer
Answer: c
Explanation: The output of the code shown above will be 'bitter', followed by an error. The error is because the operand '+' is unsupported on the types used above.
5. What happens if a local variable exists with the same name as the global variable you want to access?
a) Error
b) The local variable is shadowed
c) Undefined behavior
d) The global variable is shadowed
View Answer
Answer: d
Explanation: If a local variable exists with the same name as the local variable that you want to access, then the global variable is shadowed. That is, preference is given to the local variable.
6. What will be the output of the following Python code?
a=10
globals()['a']=25
print(a)
a) 10
b) 25
c) Junk value
d) Error
View Answer
Answer: b
Explanation: In the code shown above, the value of 'a' can be changed by using globals() function. The dictionary returned is accessed using key of the variable 'a' and modified to 25.
7. What will be the output of the following Python code?
def f(): x=4
x=1
f()
x
a) Error
b) 4

c) Junk value
d) 1
View Answer

Answer: d

Explanation: In the code shown above, when we call the function f, a new namespace is created. The assignment x=4 is performed in the local namespace and does not affect the global namespace. Hence the output is 1.

8. _____ returns a dictionary of the module namespace.
_____ returns a dictionary of the current namespace.

a)
locals()
globals()
b)
locals()
locals()
c)
globals()
locals()
d)
globals()
globals()
View Answer

Answer: c

Explanation: The function globals() returns a dictionary of the module namespace, whereas the function locals() returns a dictionary of the current namespace.

1. Which is the most appropriate definition for recursion?
a) A function that calls itself
b) A function execution instance that calls another execution instance of the same function
c) A class method that calls another class method
d) An in-built method that is automatically called
View Answer

Answer: b

Explanation: The appropriate definition for a recursive function is a function execution instance that calls another execution instance of the same function either directly or indirectly.

2. Only problems that are recursively defined can be solved using recursion.
a) True
b) False
View Answer

Answer: b

Explanation: There are many other problems can also be solved using recursion.

3. Which of these is false about recursion?
a) Recursive function can be replaced by a non-recursive function
b) Recursive functions usually take more memory space than non-recursive function
c) Recursive functions run faster than non-recursive function

d) Recursion makes programs easier to understand

View Answer

Answer: c

Explanation: The speed of a program using recursion is slower than the speed of its non-recursive equivalent.

advertisement

4. Fill in the line of the following Python code for calculating the factorial of a number.

def fact(num):
   if num == 0:
      return 1
   else:
      return _____

a) num*fact(num-1)
b) (num-1)*(num-2)
c) num*(num-1)
d) fact(num)*fact(num-1)

View Answer

Answer: a

Explanation: Suppose n=5 then, 5*4*3*2*1 is returned which is the factorial of 5.

5. What will be the output of the following Python code?

def test(i,j):
   if(i==0):
      return j
   else:
      return test(i-1,i+j)
print(test(4,7))

a) 13
b) 7
c) Infinite loop
d) 17

View Answer

Answer: d

Explanation: The test(i-1,i+j) part of the function keeps calling the function until the base condition of the function is satisfied.

6. What will be the output of the following Python code?

l=[]
def convert(b):
   if(b==0):
      return l
   dig=b%2
   l.append(dig)
   convert(b//2)
convert(6)
l.reverse()

```
for i in l:
    print(i,end="")
```
a) 011
b) 110
c) 3
d) Infinite loop
View Answer

Answer: b
Explanation: The above code gives the binary equivalent of the number.

7. What is tail recursion?
a) A recursive function that has two base cases
b) A function where the recursive functions leads to an infinite loop
c) A recursive function where the function doesn't return anything and just prints the values
d) A function where the recursive call is the last thing executed by the function
View Answer

Answer: d
Explanation: A recursive function is tail recursive when recursive call is executed by the function in the last.

8. Observe the following Python code?
```
def a(n):
    if n == 0:
        return 0
    else:
        return n*a(n - 1)
def b(n, tot):
    if n == 0:
        return tot
    else:
        return b(n-2, tot-2)
```
a) Both a() and b() aren't tail recursive
b) Both a() and b() are tail recursive
c) b() is tail recursive but a() isn't
d) a() is tail recursive but b() isn't
View Answer

Answer: c
Explanation: A recursive function is tail recursive when recursive call is executed by the function in the last.

9. Which of the following statements is false about recursion?
a) Every recursive function must have a base case
b) Infinite recursion can occur if the base case isn't properly mentioned
c) A recursive function makes the code easier to understand
d) Every recursive function must have a return value
View Answer

Answer: d

Explanation: A recursive function needn't have a return value.

10. What will be the output of the following Python code?

```python
def fun(n):
    if (n > 100):
        return n - 5
    return fun(fun(n+11));

print(fun(45))
```

a) 50
b) 100
c) 74
d) Infinite loop

View Answer

Answer: b

Explanation: The fun(fun(n+11)) part of the code keeps executing until the value of n becomes greater than 100, after which n-5 is returned and printed.

11. Recursion and iteration are the same programming approach.

a) True
b) False

View Answer

Answer: b

Explanation: In recursion, the function calls itself till the base condition is reached whereas iteration means repetition of process for example in for-loops.

12. What happens if the base condition isn't defined in recursive programs?

a) Program gets into an infinite loop
b) Program runs once
c) Program runs n number of times where n is the argument given to the function
d) An exception is thrown

View Answer

Answer: a

Explanation: The program will run until the system gets out of memory.

13. Which of these is not true about recursion?

a) Making the code look clean
b) A complex task can be broken into sub-problems
c) Recursive calls take up less memory
d) Sequence generation is easier than a nested iteration

View Answer

Answer: c

Explanation: Recursive calls take up a lot of memory and time as memory is taken up each time the function is called.

14. Which of these is not true about recursion?

a) It's easier to code some real-world problems using recursion than non-recursive equivalent
b) Recursive functions are easy to debug

c) Recursive calls take up a lot of memory
d) Programs using recursion take longer time than their non-recursive equivalent
View Answer

Answer: b

Explanation: Recursive functions may be hard to debug as the logic behind recursion may be hard to follow.

15. What will be the output of the following Python code?

```python
def a(n):
    if n == 0:
        return 0
    elif n == 1:
        return 1
    else:
        return a(n-1)+a(n-2)
for i in range(0,4):
    print(a(i),end=" ")
```

a) 0 1 2 3
b) An exception is thrown
c) 0 1 1 2 3
d) 0 1 1 2
View Answer

Answer: d

Explanation: The above piece of code prints the Fibonacci series.

1. Which type of copy is shown in the following python code?

```python
l1=[[10, 20], [30, 40], [50, 60]]
ls=list(l1)
ls
[[10, 20], [30, 40], [50, 60]]
```

a) Shallow copy
b) Deep copy
c) memberwise
d) All of the mentioned
View Answer

Answer: a

Explanation: The code shown above depicts shallow copy. For deep copy, the command given is: l2 = l1.copy().

2. What will be the output of the following Python code?

```python
l=[2, 3, [4, 5]]
l2=l.copy()
l2[0]=88
l
l2
```

a)

[88, 2, 3, [4, 5]]
[88, 2, 3, [4, 5]]
b)
[2, 3, [4, 5]]
[88, 2, 3, [4, 5]]
c)
[88, 2, 3, [4, 5]]
[2, 3, [4, 5]]
d)
[2, 3, [4, 5]]
[2, 3, [4, 5]]
View Answer
Answer: b
Explanation: The code shown above depicts deep copy. In deep copy, the base address of the objects is not copied. Hence the modification done on one list does not affect the other list.

3. In _____ copy, the base address of the objects are copied. In _____ copy, the base address of the objects are not copied.
a) deep. shallow
b) memberwise, shallow
c) shallow, deep
d) deep, memberwise
View Answer
Answer: c
Explanation: In shallow copy, the base address of the objects are copied.
In deep copy, the base address of the objects are not copied.
Note that memberwise copy is another name for shallow copy.
4. The nested list undergoes shallow copy even when the list as a whole undergoes deep copy.
a) True
b) False
View Answer
Answer: a
Explanation: A nested list undergoes shallow copy even when the list as a whole undergoes deep copy. Hence, this statement is true.
5. What will be the output of the following Python code and state the type of copy that is depicted?
l1=[2, 4, 6, 8]
l2=[1, 2, 3]
l1=l2
l2
a) [2, 4, 6, 8], shallow copy
b) [2, 4, 6, 8], deep copy
c) [1, 2, 3], shallow copy

d) [1, 2, 3], deep copy
View Answer
Answer: c
Explanation: The code shown above depicts shallow copy and the output of the code is: [1, 2, 3].
6. What will be the output of the following Python code?
```
l1=[10, 20, 30]
l2=l1
id(l1)==id(l2)

l2=l1.copy()
id(l1)==id(l2)
```
a) False, False
b) False, True
c) True, True
d) True, False
View Answer
Answer: d
Explanation: The first code shown above represents shallow copy. Hence the output of the expression id(l1)==id(l2) is True. The second code depicts deep copy. Hence the output of the expression id(l1)==id(l2) in the second case is False.
7. What will be the output of the following Python code?
```
l1=[1, 2, 3, [4]]
l2=list(l1)
id(l1)==id(l2)
```
a) True
b) False
c) Error
d) Address of l1
View Answer
Answer: b
Explanation: The code shown above shows a nested list. A nested list will undergo shallow copy when the list as a whole undergoes deep copy. Hence the output of this code is False.
8. What will be the output of the following Python code?
```
l1=[10, 20, 30, [40]]
l2=copy.deepcopy(l1)
l1[3][0]=90
l1
l2
```
a)
[10, 20, 30, [40]]
[10, 20, 30, 90]
b) Error
c)

[10, 20, 30 [90]]
[10, 20, 30, [40]]
d)
[10, 20, 30, [40]]
[10, 20, 30, [90]]
View Answer

Answer: c

Explanation: The code shown above depicts deep copy. Hence at the end of the code, l1=[10, 20, 30, [90]] and l2=[10, 20, 30, [40]].

9. In _____ copy, the modification done on one list affects the other list. In _____ copy, the modification done on one list does not affect the other list.
a) shallow, deep
b) memberwise, shallow
c) deep, shallow
d) deep, memberwise
View Answer

Answer: a

Explanation: In shallow copy, the modification done on one list affects the other list. In deep copy, the modification done on one list does not affect the other list.

10. What will be the output of the following Python code?
l1=[1, 2, 3, (4)]
l2=l1.copy()
l2
l1
a)
[1, 2, 3, (4)]
[1, 2, 3, 4]
b)
[1, 2, 3, 4]
[1, 2, 3, (4)]
c)
[1, 2, 3, 4]
[1, 2, 3, 4]
d)
[1, 2, 3, (4)]
[1, 2, 3, (4)]
View Answer

Answer: c

Explanation: In the code shown above, the list l1 is enclosed in a tuple. When we print this list, it is printed as [1, 2, 3, 4]. Note the absence of the tuple. The code shown depicts deep copy. Hence the output of this program is: l1=[1, 2, 3, 4] and l2=[1, 2, 3, 4].

11. What will be the output of the following Python code?
```
def check(n):
    if n < 2:
        return n % 2 == 0
    return check(n - 2)
print(check(11))
```
a) False
b) True
c) 1
d) An exception is thrown
View Answer

Answer: a

Explanation: The above piece of code checks recursively whether a number is even or odd.

12. What is the base case in the Merge Sort algorithm when it is solved recursively?
a) n=0
b) n=1
c) A list of length one
d) An empty list
View Answer

Answer: c

Explanation: Merge Sort algorithm implements the recursive algorithm and when the recursive function receives a list of length 1 which is the base case, the list is returned.

13. What will be the output of the following Python code?
```
a = [1, 2, 3, 4, 5]
b = lambda x: (b (x[1:]) + x[:1] if x else [])
print(b (a))
```
a) 1 2 3 4 5
b) [5,4,3,2,1]
c) []
d) Error, lambda functions can't be called recursively
View Answer

Answer: c

Explanation: The above piece of code appends the first element of the list to a reversed sublist and reverses the list using recursion.

1. The word _____ comes from the name of a Persian mathematician Abu Ja'far Mohammed ibn-i Musa al Khowarizmi.
a) Flowchart
b) Flow
c) Algorithm
d) Syntax
View Answer

Answer: c

Explanation: The word algorithm comes from the name of a Persian mathematician Abu Ja'far Mohammed ibn-i Musa al Khowarizmi.

2. In computer science, algorithm refers to a special method usable by a computer for the solution to a problem.

a) True
b) False

View Answer

Answer: a

Explanation: The statement is true. This word algorithm refers to a special method usable by a computer for the solution to a problem. The statement of the problem specifies in general terms the desired input/output relationship.

3. This characteristic often draws the line between what is feasible and what is impossible.

a) Performance
b) System Evaluation
c) Modularity
d) Reliability

View Answer

Answer: a

Explanation: Algorithms help us to understand scalability. Performance often draws the line between what is feasible and what is impossible.

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4. The time that depends on the input: an already sorted sequence that is easier to sort.

a) Process
b) Evaluation
c) Running
d) Input

View Answer

Answer: c

Explanation: The running time depends on the input: an already sorted sequence is easier to sort. The running time is given by the size of the input, since short sequences are easier to sort than the longer ones. Generally, we seek upper bounds on the running time, because it is reliable.

5. Which of the following is incorrect?

Algorithms can be represented:

a) as pseudo codes
b) as syntax
c) as programs
d) as flowcharts

View Answer

Answer: b

Explanation: Representation of algorithms:

-As programs

-As flowcharts
-As pseudo codes.

6. When an algorithm is written in the form of a programming language, it becomes a _____

a) Flowchart
b) Program
c) Pseudo code
d) Syntax
View Answer

Answer: b
Explanation: An algorithm becomes a program when it is written in the form of a programming language. Thus, any program is an algorithm.

7. Any algorithm is a program.
a) True
b) False
View Answer

Answer: b
Explanation: The statement is false. An algorithm is represented in the form of a programming language is called a program. Any program is an algorithm but the reverse is not true.

8. A system wherein items are added from one and removed from the other end.
a) Stack
b) Queue
c) Linked List
d) Array
View Answer

Answer: b
Explanation: In a queue, the items are inserted from the rear end and deleted from the front end.

9. Another name for 1-D arrays.
a) Linear arrays
b) Lists
c) Horizontal array
d) Vertical array
View Answer

Answer: a
Explanation: Linear arrays are the 1-Dimensional arrays wherein only one row is present and the items are inserted.

10. A data structure that follows the FIFO principle.
a) Queue
b) LL
c) Stack
d) Union
View Answer

Answer: a

Explanation: The answer is Queue. A Queue follows the FIFO principle. FIFO stands for First In First Out.

1. The symbol denotes _____

a) I/O
b) Flow
c) Terminal
d) Decision

View Answer

Answer: c

Explanation: The symbol denotes a terminal. It is used for indication of start and stop nodes of a program.

2. In computer science, algorithm refers to a pictorial representation of a flowchart.

a) True
b) False

View Answer

Answer: b

Explanation: The statement is false. The correct statement would be: In computer science, flowchart refers to a pictorial representation of an algorithm.

3. The process of drawing a flowchart for an algorithm is called _____

a) Performance
b) Evaluation
c) Algorithmic Representation
d) Flowcharting

View Answer

Answer: d

Explanation: It is called as flowcharting. A flowchart is nothing but a pictorial representation of an algorithm.

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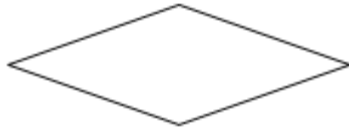4. Actual instructions in flowcharting are represented in _____

a) Circles
b) Boxes
c) Arrows
d) Lines

View Answer

Answer: b

Explanation: The actual instructions are written in boxes. Boxes are connected by using arrows to indicate the exact flow of a flowchart and the order in which they are to be executed.

5. The following box denotes?

a) Decision
b) Initiation
c) Initialization
d) I/O
View Answer
Answer: a
Explanation: A diamond shape box denotes the decision making statements. It jumps to a truth value or a false value.
6. A box that can represent two different conditions.
a) Rectangle
b) Diamond
c) Circle
d) Parallelogram
View Answer
Answer: b
Explanation: A diamond shape box denotes either a truth value or a false value. It jumps onto two different statements following it via flow lines.
7. There should be certain set standards on the amount of details that should be provided in a flowchart.
a) True
b) False
View Answer
Answer: b
Explanation: The statement is false. There should be no set standards on the amount of details that should be provided in a flowchart.
8. A detailed flowchart is called _____
a) Stack
b) Macro
c) Micro
d) Union
View Answer
Answer: c
Explanation: A detailed flowchart or a flowchart with more details is called as micro flowchart. It represents all the components of the algorithm that is followed.
9. Which of the following is not an advantage of a flowchart?
a) Better communication
b) Efficient coding
c) Systematic testing

d) Improper documentation

View Answer

Answer: d

Explanation: Flowcharts provide a proper documentation. It also provides systematic debugging.

10. A flowchart that outlines the main segments of a program.

a) Queue

b) Macro

c) Micro

d) Union

View Answer

Answer: b

Explanation: The answer is Macro Flowchart. A macro flowchart outlines the important components of a program. It therefore shows fewer details.

1. A _____ is diagram that depicts the flow of a program.

a) Algorithm

b) Hash Table

c) Graph

d) Flowchart

View Answer

Answer: d

Explanation: A flowchart is a diagram that helps us determine the flow of the program. Other options are irrelevant.

2. Terminals are represented by diagonals in a flowchart.

a) True

b) False

View Answer

Answer: b

Explanation: The statement is false. Terminals are represented by rounded rectangles. They indicate the starting or ending point in a flowchart.

3. The operation represented by parallelograms.

a) Input/Output

b) Assignment

c) Comparison

d) Conditions

View Answer

Answer: a

Explanation: The input/output operations are represented by parallelograms. They generally are used to display messages during input and output part of a program.

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4. Which of the following is not a flowchart structure?

a) Process

b) Sequence

c) Repetition

d) Case
View Answer
Answer: a
Explanation: There are basically four flowcharting structures:
• Decision
• Repetition
• Case
• Sequence.
5. The action performed by a _____ structure must eventually cause the loop to terminate.
a) sequence
b) case
c) repetition
d) process
View Answer
Answer: c
Explanation: The action performed by a repetition structure must eventually cause the loop to terminate. Otherwise, an infinite loop is created.
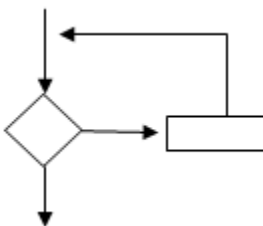6. The following symbol denotes:

a) Module
b) Terminal
c) Process
d) i/o operation
View Answer
Answer: a
Explanation: This symbol is that of a module. The terminal is denoted by a rounded rectangle. I/O operation by a parallelogram and process by a rectangle.
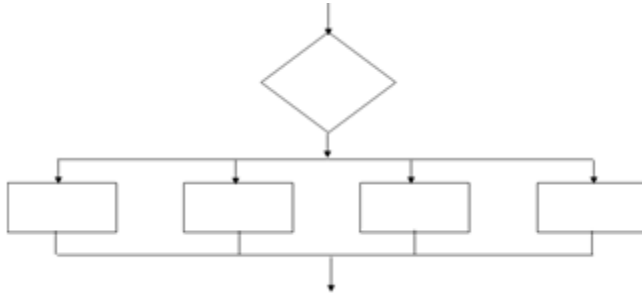7. What type of structure is this?

a) sequence
b) case
c) repetition
d) process
View Answer

Answer: c

Explanation: This is a repetition structure. The action performed by a repetition structure must eventually cause the loop to terminate. Otherwise, an infinite loop is created.

8. What type of a structure is this?

a) sequence
b) case
c) repetition
d) process
View Answer

Answer: b

Explanation: This is a case structure. Certain cases are given along with a default case in the case structure.

9. A _____ is a connector showing the relationship between the representative shapes.
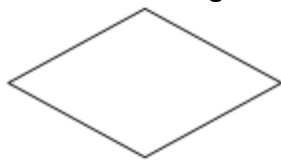a) line
b) arrow
c) Process
d) box
View Answer

Answer: b

Explanation: Arrows are the connectors that show the relationship between different shapes. They also show the flow of the program.

10. The following box denotes?

a) Decision
b) Input/Output
c) Process
d) Module
View Answer

Answer: a

Explanation: The answer is decision. Conditions are given in this box and then the result is checked accordingly if the condition is true or false.

1. Keep the statement language _____ while writing a pseudo code.
a) Dependent

b) Independent
c) Case sensitive
d) Capitalized
View Answer

Answer: b
Explanation: The statement's language should be independent. Other rules are to write only one statement per line and end multiline structures.

2. Capitalize initial keyword – This is a rule while writing a pseudo code.
a) True
b) False
View Answer

Answer: a
Explanation: The statement is true. It is an important rule to capitalize the initial keyword while writing a pseudo code.

3. Which of the following is not a keyword?
a) Read
b) Write
c) start
d) endif
View Answer

Answer: c
Explanation: Start is not a Keyword. Other words like read, write, if, else, etc are keywords and convey a special meaning.

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4. _____ is used to show hierarchy in a pseudo code.
a) Indentation
b) Curly Braces
c) Round Brackets
d) Semicolon
View Answer

Answer: a
Explanation: Each design structure uses a particular indentation pattern.
Indentation should be considered in the following cases:
Sequence
Selection
Loop.

5. The statement that tells the computer to get a value from an input device and store it in a memory location.
a) read
b) write
c) READ
d) WRITE
View Answer

Answer: c

Explanation: The READ statement is used to take the input. READ being a keyword should be in capital letters.

6. _____ are identified by their addresses, we give them names (field names / variable names) using words.
a) Memory variables
b) Memory Locations
c) Memory Addresses
d) Data variables

View Answer

Answer: b

Explanation: Memory locations are identified by their addresses, we give them names (field names/variable names) using words descriptive to us such as ctr as opposed to a location addresses such as 19087.

7. _____ begins with lower case letters.
a) Keywords
b) Variables
c) Tokens
d) Functions

View Answer

Answer: b

Explanation: Variables begin with a lowercase. They contain no spaces. They also involve the consistent use of names.

8. Another notation for exponentiation.
a) *
b) **
c) ***
d) *^

View Answer

Answer: b

Explanation: Double asterisk sign is also used for exponentiation. The general notation is ^ sign.

9. A symbol used for grouping.
a) ()
b) {}
c) [].
d) " "

View Answer

Answer: a

Explanation: Parenthesis is used for grouping while working with fields. There are other symbols like *, +, -, **, etc.

10. A statement used to close the IF block.
a) ELSE
b) ELSEIF
c) END

d) ENDIF
View Answer
Answer: d
Explanation: The answer is ENDIF. It is used to close the IF block. ENDIF statement should be in line with the IF statement.
1. Programming based on stepwise refinement process.
a) Structural
b) C programming
c) Procedural
d) Fine
View Answer
Answer: a
Explanation: Structured programming is based on the stepwise refinement process-a method of problem decomposition common to all engineering disciplines and the physical, chemical, and biological sciences.
2. Top-down approach is followed in structural programming.
a) True
b) False
View Answer
Answer: a
Explanation: The statement is true. Structural programming follows the top – down approach. Each module is further divided into sub modules.
3. A _____ is a directed graph that describes the flow of execution control of the program.
a) Flowchart
b) Flow graph
c) Complexity curve
d) Algorithm
View Answer
Answer: a
Explanation: A flowchart is a directed graph. It simply describes the flow of execution control of the program.

4. A program should be _____
a) Secure
b) Sequential
c) Ordered
d) Simple
View Answer
Answer: b
Explanation: It is natural to write a program as a sequence of program structures such as sequences, choices and loops.
5. The following is the syntax for:
    ____(condition)
        action

a) Else
b) Elif
c) If
d) Switch
View Answer

Answer: c
Explanation: The if statement follows that syntax. If is a choice statement. Else is also a choice statement.

6. Which of the following is a loop statement?
a) IF
b) ELSE
c) WHILE
d) DO
View Answer

Answer: c
Explanation: WHILE is a loop statement.
Syntax : while(condition)
action.

7. What is the correct syntax of for statement?
a) for(initialization;condition;update)
b) for(initialization,condition,update)
c) for(condition;initialization;update)
d) for(initialization;condition;)
View Answer

Answer: a
Explanation: The correct syntax is : for(initialization;condition;update)
For is another loop statement.

8. Semicolon is used after :
a) Function definition
b) Function call
c) for loop
d) while loop
View Answer

Answer: b
Explanation: Semicolon is used after function call otherwise it leads to compile-time errors. It shouldn't be used after definitions. It should also not be used after loops.

9. The number of values a function can return at a time?
a) 1
b) 0
c) 2
d) more than 2
View Answer

Answer: a

Explanation: A function can return only one value at a time.

Syntax : return (x,12);

10. Which of the following isn't a loop statement?

a) for

b) elif

c) while

d) do-while

View Answer

Answer: b

Explanation: The answer is elif. Elif isn't a loop statement. It is a part of a choice statement.

1. Each personal computer has a _____ that manages the computer's arithmetical, logical and control activities.

a) Microprocessor

b) Assembler

c) Microcontroller

d) Interpreter

View Answer

Answer: a

Explanation: Microprocessor handles all these activities. Each family of processors has its own set of instructions for handling various operations like getting input from keyboard, displaying information on a screen and performing various other jobs.

2. Assembly Language requires less memory and execution time.

a) True

b) False

View Answer

Answer: a

Explanation: The statement is true.

Advantages of using assembly language are:

• It requires less memory and execution time.

• It allows hardware-specific complex jobs in an easier way.

• It is suitable for time-critical jobs.

3. The data size of a word is _____

a) 2-byte

b) 4-byte

c) 8-byte

d)16-byte

View Answer

Answer: a

Explanation: The processor supports the following data sizes:

• Word: a 2-byte data item

• Double word: a 4-byte (32 bit) data item, etc.

4. A direct reference of specific location.
a) Segment Address
b) Absolute Address
c) Offset
d) Memory Address
View Answer
Answer: b
Explanation: There are two kinds of memory addresses:
• An absolute address – a direct reference of specific location.
• The segment address (or offset) – starting address of a memory segment with the offset value.
5. A Borland Turbo Assembler.
a) nasm
b) tasm
c) gas
d) asm
View Answer
Answer: b
Explanation: Tasm is the borland turbo assembler. Nasm is used with linux generally. Gas is the GNU assembler.
6. The instructions that tell the assembler what to do.
a) Executable instructions
b) Pseudo-ops
c) Logical instructions
d) Macros
View Answer
Answer: a
Explanation: The executable instructions or simple instructions tell the processor what to do. Each instruction consists of an operation code (opcode). Each executable instruction generates one machine language instruction.
7. The segment containing data values passed to functions and procedures within the program.
a) Code
b) Data
c) Stack
d) System
View Answer
Answer: c
Explanation: The stack segment contains data values passed to functions and procedures within the program. The code segment defines an area in memory that stores the instruction codes.
8. To speed up the processor operations, the processor includes some internal memory storage locations, called _____
a) Drives
b) Memory
c) Units

d) Registers

View Answer

Answer: d

Explanation: The processor has some internal memory storage locations, known as registers. The registers stores data elements for processing without having to access memory.

9. To locate the exact location of data in memory, we need the starting address of the segment, which is found in the DS register and an offset value. This offset value is also called?

a) Effective Address

b) Direct offset address

c) Memory address

d) General Address

View Answer

Answer: a

Explanation: When operands are specified in memory addressing mode, direct access to main memory, usually to the data segment, is required. This way of addressing results in slower processing of data. To get the exact location of data in memory, we need segment start address, which is found in the DS register and an offset value. This offset value is called an effective address.

10. Each byte of character is stored as its ASCII value in _____

a) Hexadecimal

b) Binary

c) Octal

d) Decimal

View Answer

Answer: a

Explanation: Assembly language deals with hexadecimal values only. Each decimal value is automatically converted to its 16-bit binary equivalent and stored as a hexadecimal number.

MCQ FOR If If-Else, Switch statements
1. What is the Output of the following program

```
#include <stdio.h>
void main()
{
    int x=22;
    if(x=10)
        printf("TRUE");
    else
        printf("FALSE");
}
```

a. TRUE

b. FALSE

c. Error

d. None

2. What is the Output of the program

```
#include <stdio.h>
void main()
{
    char val=1;
    if(val--==0)
        printf("TRUE");
    else
        printf("FALSE");
}
```

a. TRUE

b. FALSE

c. Error

d. None

3. What is the Output of the program

```
#include <stdio.h>
int main()
{
    int a=10;
    if(a==10)
    {
        printf("Hello...");
        break;
        printf("Ok");
    }
    else
    {
        printf("Hii");
    }
    return 0;
}
```

a. Hello...

b. Hello...OK

c. OK

d. Error

4. What is the Output of the following code

```c
#include <stdio.h>
int main()
{
    int pn=100;
    if(pn>20)
        if(pn<20)
            printf("Heyyyyy");
    else
        printf("Hiiiii");
    return 0;
}
```

a. No output

b. Hiiiii

c. Heyyyyy

d. HeyyyyyHiiiii

5. **Which of the following are incorrect statements? If int a=10.**

```c
a. if( a==10 )   printf("IncludeHelp");
b. if( 10==a )   printf("IncludeHelp");
c. if( a=10  )   printf("IncludeHelp");
d. if( 10=a  )   printf("IncludeHelp");
```

a. 3 and 4.

b. 3 only.

c. 4 only.

d. 2,3 and 4.

6. What is the output of the following program

```c
#include<stdio.h>
int main()
{
    int i = 5, j = 6, k = 7;
    if(i > j == k)
        printf("%d %d %d", i++, ++j, --k);
    else
        printf("%d %d %d", i, j, k);
    return 0;
}
```

a. 5 7 6

    c. 6 6 6
    d. 5 7 7

7. What will be the output of the following code

```
#include
void main()
{
  int number=20;
  switch(number){
  case 10: printf("case 10 \n");
          break;
  case 20: printf("case 20 \n");
      break;
  case 30: printf("case 30 \n");
          break;
  default: printf("Not in 10, 20 or 30 \n");
  }
}
```
    a. Case 10
    b. Case 20
    c. Case 30
    d. Not in 10, 20 or 30

8. What is the output of the code
```
#include <stdio.h>
void main()
{
  int x = 0;
  if (x == 0)
    printf("hi");
  else
    printf("how are u");
    printf("hello");
}
```
    a. Hi
    b. how are you
    c. hello
    d. hihello

9. What is the output of the following code
```
#include <stdio.h>
int main()
{

  int a=5;

  switch(a)
  {
    case 0: printf("0 ");
    case 3: printf("3 ");
    case 5: printf("5 ");
```

```
        default: printf("RABBIT ");
    }

    a=10;
    switch(a)
    {
        case 0: printf("0 ");
        case 3: printf("3 ");
        case 5: printf("5 ");
        default: printf("RABBIT "); break;
    }

    return 0;
}
```

   a. 5 RABBIT
   b. 0 3 5 RABBIT 0 3 5 RABBIT
   c. 0 3 5 RABBIT RABBIT
   d. 5 RABBIT RABBIT

10. What is the output of C Program with switch statement or block.?

```
    int main()
    {
        int a=3;

        switch(a)
        {

        }

        printf("MySwitch");
    }
```

   a. MySwitch
   b. No Output
   c. Compiler Error
   d. None of the above

MCQ on Structures and Unions

1. What will the Output of the following code?

```c
#include <stdio.h>

struct result{

  char sub[20];

  int marks;

};

void main()

{

    struct result res[] = { {"Maths",100},

    {"Science",90},

    {"English",85}

    };

  printf("%s ", res[1].sub);

  printf("%d", (*(res+2)).marks);

}
```

    a. Maths 100
    b. Science 85
    c. Science 90
    d. Science 100

2. What will be the size of the following structure?

```c
struct demo{

  int a;

    float c;

};
```

    a. 8
    b. 9
    c. 10
    d. 11

3. What is the output of the following code
```c
#include <stdio.h>
void main()
{
struct demo{
   char * a;
   int n;
};

struct demo p = {"hello", 2015};

printf("%s ", p.a);
printf("%d", p.n);
}
```

    a. Compile error
    b. Runtime error
    c. No output
    d. Hello 2015

4. **What will be the size of the following structure?**
```c
#include <stdio.h>
struct temp
{
   int a[10];
   char p;
};
```

    a. 11
    b. 5
    c. 41
    d. 44

5. What is the output of following code
```c
int main()
{
   struct ship
   {
      char color[10];
   }boat1, boat2;
   strcpy(boat1.color,"RED");
   printf("%s ",boat1.color);
   boat2 = boat1;
   strcpy(boat2.color,"YELLOW");
   printf("%s",boat1.color);
   return 0;
}
```

    a. RED RED
    b. RED YELLOW

6. What is the output of the following code

```
int main()
{
    struct tree
    {
        int h;
    }
    struct tree tree1;
    tree1.h=10;
    printf("Height=%d",tree1.h);
    return 0;
}
```
   a. Height=0
   b. Height=10
   c. Height=
   d. Compile time error

7. What is the output of the following code

```
#include
#include

struct university_detail
{
    int u_id;
    char u_name[50];
};

struct student_detail
{
    int s_id;
    char s_name[20];
    float s_marks;
    // structure within structure
    struct university_detail u_data;
}stu_data;

int main()
{
    struct student_detail stu_data = {1, "Rambo", 99.5, 89145,
                            "Peace University"};
    printf(" Id is: %d \n", stu_data.s_id);
    printf(" Name is: %s \n", stu_data.s_name);
    printf(" Percentage is: %f \n\n", stu_data.s_marks);
```

```c
    printf(" College Id is: %d \n",
            stu_data.u_data.u_id);
    printf(" College Name is: %s \n",
            stu_data.u_data.u_name);
    return 0;
}
```

   a. Compile time error
   b. Run time error
   c. No output
   d. Id is: 1
      Name is: Rambo
      Percentage is: 99.500000

      College Id is: 89145
      College Name is: Peace University

8. State True or False
   A union cannot be nested in a structure

   a. True
   b. False

9. State true or false
   Nested unions are allowed

   a. True
   b. False

10. What is the Output of the Following code
```c
#include <stdio.h>
int main()
{
  union demo {
    int x;
    int y;
  }a;

  a.x = 100;
  printf("%d %d",a.x,a.y);
}
```
   a. 100 garbage vale
   b. Garbahe value, 100
   c. 100, 100
   d. Compile time error

11. What is the size of the following code

        #include <stdio.h>

```
        int main()

        {

            union  demo {

                int x;

                int y;

            }a;
```

a. 8
b. 12
c. 4
d. 0

12. What is the size of the following code

```
        #include <stdio.h>

        int main()

        {

            union  demo {

                int x;

                int y;

                char c;

            }a;
```

a. 8
b. 9
c. 12
d. 4

13. What will be the output of the following code

```
#include <stdio.h>

int main()

{

    union  demo {

        int x;

        int y;

        char c;

    }a;
```

```
    a.x = 65;

    printf("%d %d %c",a.x,a.y,a.c);

    }
```

       a. 65, garbage value, garbage value
       b. Compile error
       c. 65, 65, A
       d. Nothing

14. What will be the output of the following code

```
#include <stdio.h>

int main()

{

    union demo {

        int x;

        int y;

        char c;

    }a;


    a.x = 97;

    printf("%d %d %c",a.x,a.y,a.c);

    }
```

       a. 97, garbage value, garbage value
       b. Compile error
       c. 97, 97, a
       d. Nothing

1. Which keyword is use for function?

   A. define
   B. fun
   C. def
   D. function

2. Which of the following items are present in the function header?
   A. function name
   B. parameter list
   C. return value
   D. Both A and B

3. If return statement is not used inside the function, the function will return:
   A. None
   B. 0
   C. Null
   D. Arbitary value

4. What is a recursive function?
   A. A function that calls other function.
   B. A function which calls itself.
   C. Both A and B
   D. None of the above

5. How is a function declared in Python?
   A. def function function_name():
   B. declare function function_name():
   C. def function_name():
   D. declare function_name():

6. Which one of the following is the correct way of calling a function?
   A. function_name()
   B. call function_name()
   C. ret function_name()
   D. function function_name()

7. Where is function defined?
   A. Module
   B. class
   C. Another Function
   D. All of the above

8. What is a variable defined outside a function referred to as?
   A. local variable
   B. global variable
   C. static Variable
   D. automatic variable

9. What is the output of the following program?

```
print(chr(ord(chr(97))))
```

A. a
B. A
C. 97
D. error

10. Choose the correct option with reference to below Python code?

```
def fn(a):

    print(a)

x=90

fn(x)
```

A. x is the formal argument.

B. a is the actual argument.

C. fn(x) is the function signature.

D. x is the actual argument.

11. What will be the output?
d = {"Ram":400, "Sam":450}
print(d["Ram"])
    A. Error
    B. 400
    C. 450
    D. Ram

12. Suppose z = (1, 2, 3,4) which of the following is incorrect?
    A. print(z[2])
    B. print(max(z))
    C. z[2]=1000
    D. print(min(z))

13. Which of the following will result in error
    A. S={abs}
    B. S={1,2.3,"asd",'a'}
    C. S={1,2,3}
    D. S={zxc}

14. _____ are immutable in python
    A. List
    B. Dictionary
    C. Set

D. Tuple

15. To print last element of a list a=[1,2,34,4] syntax is _____
    A. a[last]
    B. a[1]
    C. a[-1]
    D. None

MCQ on Static and Dynamic Scoping

1. What will be the output of the following Program for static scoping?
   ```
   void fun1(void);
   void fun2(void);

   int a = 1, b = 2, c = 3;

   int main() {
     int c = 4;
      fun1();
      return 0;
   }

   void fun1() {
      int a = 2, b = 3;
      fun2();
   }

   void fun2(){
      printf("%d %d %d", a, b, c);
   }
   ```
   a. 1 2 3
   b. 1 2 4
   c. 2 3 3
   d. 2 3 4

2. What will be the output of the following Program for dynamic scoping?
   ```
   void fun1(void);
   void fun2(void);

   int a = 1, b = 2, c = 3;

   int main() {
     int c = 4;
      fun1();
      return 0;
   }

   void fun1() {
      int a = 2, b = 3;
      fun2();
   }

   void fun2(){
      printf("%d %d %d", a, b, c);
   }
   ```

a. 1 2 3

b. 1 2 4

c. 2 3 3

d. 2 3 4

3. What will be the output of the following Program for static scoping

```c
#include<stdio.h>
int b = 5;
int foo()
{
  int a = b + 5;
  return a;
}

int bar()
{
  int b = 2;
  return foo();
}

int main()
{

  printf(" \n Value returned by function foo() is %d",foo());
  printf(" \n Value returned by function bar() is %d",bar());

  return 0;
}
```

a. Compile error

b. Returns Nothing

c. 10 10

d. 10 7

4. What will be the output of the following Program for dynamic scoping

```c
#include<stdio.h>
int b = 5;
int foo()
{
  int a = b + 5;
  return a;
}

int bar()
{
  int b = 2;
  return foo();
}

int main()
{
```

```
    printf(" \n Value returned by function foo() is %d",foo());
    printf(" \n Value returned by function bar() is %d",bar());

    return 0;
}
```
    a. Compile error
    b. Returns Nothing
    c. 10 10
    d. 10 7

5. What is the output of the code
```
#include <stdio.h>
    int main()
    {
        int i;
        for (i = 0;i < 5; i++)
        int a = i;
        printf("%d", a);
    }
```
    a. a is out of scope when printf is called
    b. Redeclaration of a in same scope throws error
    c. Syntax error in declaration of a
    d. No errors, program will show the output 5

6. Comment on the following Code
```
#include <stdio.h> //Program 1
    int main()
    {
        int a;
        int b;
        int c;
    }

    #include <stdio.h> //Program 2
    int main()
    {
        int a;
        {
            int b;
        }
        {
            int c;
        }
    }
```
    a. Both are same
    b. Scope of c is till the end of the main function in Program 2

    c.   In Program 1, variables a, b and c can be used anywhere in the main function whereas in Program 2, variables b and c can be used only inside their respective blocks

    d.   None of the mentioned

7. What will be the output of following Code

```c
#include <stdio.h>
int main()
{
  int x = 1, y = 2, z = 3;
  printf(" x = %d, y = %d, z = %d \n", x, y, z);
  {
     int x = 10;
     float y = 20;
     printf(" x = %d, y = %f, z = %d \n", x, y, z);
     {
        int z = 100;
        printf(" x = %d, y = %f, z = %d \n", x, y, z);
     }
  }
  return 0;
}
```

    a.   10 20 3 and 10 20 100

    b.   1 2 3 and 1 2 100

    c.   1 2 3 and 10 20 100

    d.   10 20 3 and 1 2 100

8. What is the Output of the following code

```c
#include <stdio.h>

static int animals = 8;
const int i = 5;

int call_me(void)
{
   printf("%d %d", i, animals);
}

#include <stdio.h>

int main()
{
   call_me();
   animals = 2;
   printf("%d", animals);
   return 0;
}
```

    a.   Compile error

    b.   5 8 2

    c.   2 5 8

d. 2 8 5

9. What is the Output of the following code

```c
#include <stdio.h>

static int animals = 8;

const int i = 5;

int call_me(void)

{

   printf("%d %d", i, animals);

}

int main()

{

   call_me();

   printf("having fun washing!");

   animals = 10;

   printf("%d", animals);

   return 0;

}
```

a. 5 8 "having fun with washing" 10
b. 8 5 "having fun with washing" 10
c. 10 " having fun with washing" 5 8
d. 10 " having fun with washing" 8 5

10. What is the Output of the Following code

```c
#include <stdio.h>

int x = 10;
int z = 5;

int main()
{

   extern int y; // line 2
   extern int z;
   printf("%d %d %d", x, y, z);
}

int y = 2;
```

a. Compile time error
b. Run Time error
c. 10 2 5
d. X = 10 some garbage value for y and z=5

MCQ for Second Unit

1. A _____is a notational system for describing computation in machine-readable and human-readable form.
   - a. programming language
   - b. top-down approach
   - c. bottom-up approach
   - d. SDLC

2. In_____, an overview of the system is formulated, without going into detail for any part of it
   - a. programming language
   - b. top-down approach
   - c. bottom-up approach
   - d. SDLC

3. In _____design individual parts of the system are specified in details
   - a. programming language
   - b. top-down approach
   - c. bottom-up approach
   - d. SDLC

4. The _____is a framework defining tasks performed at each step in the software development process
   - a. programming language
   - b. top-down approach

c. bottom-up approach

d. SDLC

5. A _____ is formal language that specifies a set of instructions that can be used to produce various kinds of output

    a. programming language

    b. top-down approach
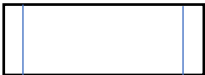
    c. bottom-up approach

    d. SDLC

6. Step-by-step description of how to achieve a solution for a given problem

    a. Program

    b. Algorithm

    c. Flowchart

    d. Pseudocode

7. ▭ Flowchart symbol is used for____

    a. To invoke subroutine

    b. Decision box

    c. Process

    d. Input/Output

8. *In a room with ten people, everyone shakes hands with everyone else exactly once. In total, how many handshakes are there?*

    a. 45

    b. 35

    c. 25

    d. 15

9. In Vickers, this framework is called the
   _____approach to problem solving.
   a. How to Think Like a Programmer (HTTLAP)
   b. SDLC
   c. Problem Solving
   d. Top down
10. A typical programming task can be divided into
   _____
   a. One phase
   b. Two phases
   c. Three phases
   d. Four phases

UNIT 1 Revision

1. ENIAC is _____
   a. Electronic Numerical and Integration Calculator
   b. Electronic Number and Integrator Computer
   c. Electronic Numerical and Integrator Computer
   d. Electrical Numeric and Integrator Computer
2. EDVAC is _____
   a. Electronic data variable automatic computer
   b. Electronic discrete variable automatic computer
   c. Electronic discrete variable automatic calculator
   d. Electronic data variable automatic calculator
3. EDSAC is _____
   a. Electronic Delay Storage Automatic Calculator
   b. Electronic Delay Storage Automatic Computer
   c. Electronic Data Storage Automatic Calculator
   d. Electronic Data Storage Automatic Computer
4. UNIVAC is _____
   a. Unique Automatic Calculator
   b. Unique Automatic Computer
   c. Universal Automatic Calculator
   d. Universal Automatic Computer
5. Vacuum Tubes belonged to which generation _____
   a. First Generation
   b. Second Generation
   c. Third Generation
   d. Fourth Generation
6. Transistor belonged to which generation_____
   a. First Generation
   b. Second Generation
   c. Third Generation
   d. Fourth Generation
7. IC(integrated circuit) belonged to which generation_____
   a. First Generation
   b. Second Generation
   c. Third Generation
   d. Fourth Generation
8. An _____is a form of computer that uses continuous physical phenomena such as electrical, mechanical, or hydraulic quantities to model the problem being solved
   a. analog computer
   b. digital computer
   c. hybrid computer
   d. none of the mentioned option
9. A computer that performs calculations and logical operations with quantities represented as digits, usually in the binary number system is _____
   a. analog computer
   b. digital computer
   c. hybrid computer

d. none of the mentioned option

10. Exhibit features of analog and digital computer is _____
    a. analog computer
    b. digital computer
    c. hybrid computer
    d. none of the mentioned option

11. A midsized computer. In size and power, _____ lie between workstations and mainframes
    a. Minicomputers
    b. Microcomputer
    c. Mainframe Computer
    d. Super Computer

12. Complex Instruction Set Computer (CISC) has _____ instruction set
    a. Large Instruction Set
    b. Small Instruction Set
    c. Medium Instruction Set
    d. None of the mentioned options

13. Reduced Instruction Set Computer (CISC) has _____ instruction set
    a. Large Instruction Set
    b. Small Instruction Set
    c. Medium Instruction Set
    d. None of the mentioned options

14. _____ (also known as main **storage** or **memory**) is the area in a computer in which data is stored for quick access by the computer's processor. It consists of Registers, Cache and Main Memory
    a. Primary storage
    b. Secondary storage
    c. USB
    d. Floppy Disk

15. _____ is an intermediate stage between ultra-fast register and much slower main memory
    a. Registers
    b. Cache memory
    c. USB
    d. Hard disk

16. $(123)_{10}$ convert to binary _____
    a. 1111010
    b. 1111111
    c. 1111011
    d. 1011011

17. $(123)_{10}$ convert to octal _____
    a. 153
    b. 163
    c. 143
    d. 173

18. $(123)_{10}$ convert to hexadecimal _____
    a. 7A
    b. 7B

c. 7C

d. 7D

19. Convert $(11010)_2$ binary to decimal_____

    a. 24

    b. 25

    c. 26

    d. 27

20. Convert $(11010)_2$ binary to octal_____

    a. 28

    b. 29

    c. 30

    d. 32

21. Convert $(11010)_2$ binary to hexadecimal_____

    a. 1A

    b. 1B

    c. 1C

    d. 1D

22. Convert (FF1A)16 to decimal_____

    a. 55678

    b. 65306

    c. 12345

    d. 65305

23. Convert (74)8 to binary_____

    a. 111100

    b. 100111

    c. 101100

    d. 100101

24. One's Complement of 100 is _____

    a. 100

    b. 011

    c. 101

    d. 111

25. Two's Complement of 100 is _____

    a. 100

    b. 011

    c. 101

    d. 111

ANSWERS

1. C
2. B
3. A
4. D
5. A
6. B
7. C
8. A
9. B
10. C
11. A
12. A
13. B
14. A
15. B
16. C
17. D
18. B
19. C
20. D
21. A
22. B
23. A
24. B
25. A

1. Which of the following is first generation of computer
   a. **EDSAC**
   b. IBM-1401
   c. CDC-1604
   d. ICL-2900
2. _____ is an electronic device that can perform arithmetic and logical operations at high speed
   a. Calculator
   b. Television
   c. **Computer**
   d. All
3. UNIVAC is _____
   a. Universal Array Computer
   b. Unique Automatic Computer
   c. Unvalued Automatic Computer
   d. **Universal Automatic Computer**
4. _____is a part of operating system and is responsible for loading executable files into memory and execute them.
   a. Linker
   b. **Loader**
   c. Operating System
   d. Compiler
5. Transistors are used in which Generation Computers?
   a. First Generation
   b. **Second Generation**
   c. Third Generation
   d. Fourth Generation
6. Vacuum tubes are used in which generation
   a. **First Generation**
   b. Second Generation
   c. Third Generation
   d. Fourth Generation
7. IC are used in which generation
   a. First Generation
   b. Second Generation
   c. **Third Generation**
   d. Fourth Generation
8. Operating System is essential to
   a. **Boot the system**
   b. Control ALU
   c. Decide storage unit
   d. Process ALU
9. Ones Complement of 1000 is _____
   a. 1111

b. 0111

c. 0000

d. 1110

10. 2's complement of 11001011 is_____

    a. 01010111

    b. 11010100

    c. 00110101

    d. 11100010

11. single precision floating point representation of number consist of following bias value

    a. 127

    b. 128

    c. 1023

    d. 1024

12. double precision floating point representation of number consist of following bias value

    a. 127

    b. 128

    c. 1023

    d. 1024

13. One byte is _____ bits

    a. 10

    b. 1024

    c. 8

    d. 100

14. 25_8 when converted to binary value will be_____

    a. 010101

    b. 000101

    c. 101010

    d. 111000

15. _____ **invented C**

    a. Dennis Ritchie

    b. Right Brothers

    c. Bill Gates

    d. James Gosling

16. **A _____ values never changes**

    a. Variables

    b. Identifiers

    c. Constants

    d. None

17. **There are total _____ keywords in C**

    a. 255

    b. 32

    c. 1024

    d. 56

18. **Pictorial representation of an algorithm is _____**
    a. **Pseudocode**
    b. **Algorithm**
    c. **Flowchart**
    d. **All**

19. _____are names for entities in a C program, such as variables, arrays, functions,

structures, unions and labels .
    a. **Variables**
    b. **Constants**
    c. **Keywords**
    d. **Identifiers**

20. **A step by step process to solve a problem in natural language is _____**
    a. **Algorithm**
    b. **Pseudo code**
    c. **Flowchart**
    d. **All**

What will be output?
include <stdio.h>
t main() {
i = 0;

tf("in while loop\n");
ile (i < 3);

○ 1

○ 3

○ 0

○ 2

```c
#include <stdio.h>
struct student
{
};
void main()
{
struct student s[2];
printf("%d", sizeof(s));
}
```

○ 0

○ 2

○ 4

○ 8

What will be the output of a program
```c
#include<stdio.h>
void main()
{
int iValue;
int iResult;
iValue = 5;
iResult = ++iValue;
printf("iValue:%d \n",iValue);
printf("iResult:%d",iResult);
}
```

6 , 6

○ iValue:6iResult:5

○ iValue:5iResult:6

✓ ○ iValue:6iResult:6

○ iValue:5iResult:5

What is the output of this C code?

```c
#include <stdio.h>
void main()
{
static int x;
printf("x is %d", x);
}
```

$$x = 0$$

- ○ Run time error
- ○ x is 1
- ✓ ○ x is 0
- ○ Junk value

What is the value of myArray[1][2]?

```c
#include<stdio.h>
void main()
{
    int i,j;
    int ctr = 0;
    int myArray[2][3];
    for(i=0;i<3;i++)
        for(j=0;j<2;j++)
        {
            myArray[j][i]=ctr;
            ctr++;
        }
    printf("Value of myArray:%d",myArray[1][2]);
}
```

○ Value of myArray:3

◉ Value of myArray:5

○ Value of myArray:1

○ Value of myArray:2

What will be the output?

```c
#include <stdio.h>
int main()
{
union demo
{
int x,y;
char c;
}a;
a.x = 97;
printf("%d,%d,%c",a.x,a.y,a.c);
return 0;
}
```

○ 97, garbage value, garbage value

○ a,97,97

○ 97,97,garbage value

○ 97, 97, a

97,97,a

What is the output of following code:

```c
#include<stdio.h>
void main()
{
int a[5]={2,3};
printf("%d,%d,%d\n", a[2], a[1], a[0]);
}
```

0,3,2

- ◯ Garbage Values

- ◯ 3,2,0

- ◯ 2,3,0

- ✓ ◯ 0,3,2

Tag to Revisit

```c
#include <stdio.h>
struct student
{
};
void main()
{
struct student s[7];
printf("%d", sizeof(s));
}
```

- ⦿ 0
- ○ 8
- ○ 4
- ○ 2

What is the output of Program with functions.?

```
#include<stdio.h>

void show();

int main()
{
show();
printf("HI");
return 0;
}
void show()
{
printf("Hello");
}
```

HelloHi

- ◯ Hello

- ◯ HI

- ◉ HelloHi

- ◯ HiHello

What is the syntax of calloc() to allocate memory to an array at runtime.?

○ int *p;

    p = (int*)calloc(10, sizeof(*int));

○ int *p;

    p = (int*)calloc(10, sizeof(int*));

○ int *p;

    p = (int*)calloc(10, sizeof(int));

○ int *p;

    p = (*int)calloc(10, sizeof(int));

ich of the following is the correct way to declare a pointer variable

int *ptr

- ○ int ptr;
- ○ int ptr*;
- ○ *int ptr;
- ● int *ptr; ✓

What will be the output?

```c
#include<stdio.h>
#include<string.h>
int main()
{
struct ship
{
char color[10];
}boat1, boat2;
strcpy(boat1.color,"RED");
printf("%s ",boat1.color);
boat2 = boat1;
strcpy(boat2.color,"YELLOW");
printf("%s",boat1.color);
return 0;
```

REDRED

○ R

○ Y

○

○

What will be the output for:
```
d = {1: 'a', 2: 'b', 3: 'c'}
for i in d:
    print(i)
```

1
2
3

○ 1 a 2 b 3 c

○ a
  b
  c

○ None of the mentioned

What will be the output of the python program:

```
def sum(a,b):
    c=a+b
    return(c)
print("Sum is:",sum(97,79))
```

176

- ○ None of the mentioned
- ○ Garbage value
- ○ Indentation Error
- ○ 176

What will be the output of following Python code?

```
lst=[1,3,4,2]
x=lst.pop(2)
print("Popped Element:",str(x))
```

- ⊙ Popped Element:(2)
- ⊙ Popped Element:(1,3,2)
- ⊙ Popped Element:(1,3,4)
- ⊙ Popped Element:(4)

What will be the output of program
#include<stdio.h>
void main()
{
int Count=3;
while (Count<=5)
{
printf("%d",Count);
Count++;
}
}

345

- ✓ 345
- ○ 435
- ○ 543
- ○ 534

```
#include<stdio.h>
void main()
{
char str[20]="Hello word@";
printf(""%s"", str);
}
```

error

- ○ Hello word@
- ✓ ○ Error
- ○ None of the mentioned
- ○ Garbage value

Find the output of the following program?

```
#include<stdio.h>
void main()
{
int array[]={10,20,30,40};
printf("%d", -2[array]);
}
```

-30

○ -60

○ Compilation error

○ -30

○ -40

What will be the output of the following Python code?

```
for val in "Hibye":
    if val == "b":
        break
    print(val)
print("Hello")
```

H
i
Hello

- ( ) H
  i
  Hello

- ( ) Hi Hello

- ( ) H
  i
  bye

- ( ) Hibye

What will be the output of the following Python code ?

```
def example(a):
    a = a + 2
    a = a*2
    return a
example("hello")
```

○ hello2

○ hello2hello2

○ cannot perform mathematical operation on strings

● Indentation Error

What will be the output of the python program:

```
def my_function(f):
    for x in f:
        print(x)
f = ["Apple","Banana","Cherry"]
print("Fruits are:")
```

Fruits are :

○ Fruits are: Apple Banana Cherry

○ Fruits are:

Apple

Banana

Cherry

○ Indentation error

● ruits are:

What will be the output of the following Python code?

```
i = 1
while True:
    if i%3 == 0:
        break
    print(i)
i += 1
```

- ● Indentation error
- ○ None of the mentioned
- ○ 1 2 3
- ○ 1 2

What data type is the object below?
L = [1, 23, 'hello', 1]

- ● List
- ○ tuple
- ○ array
- ○ dictionary

What will be the output of the following Python code?

```
def func(x):
    x=50
    print('x is', x)
x=2
print('Changed local x to', x)
func(x)
print('x is now', x)
```

○ Changed local x to 2

   x is 2

   x is now 50

● Changed local x to 2

   x is 50

   x is now 2

○ None of the mentioned

○ Changed local x to 2

   x is 2

   x is now 2

What will be the output?
```
list=['h','e','l','l','o']
print("Length is:",len(list))
```

- ○ Length is:4
- ○ Length is:5
- ○ None
- ○ Error