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Objective Solved  
Questions

**Volume-7**

Fundamentals of Computer  
Programming Fundamentals

# RSSB

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Lastly, we are thankful to all the engineers, authors whose work has been the source of enlightenment, inspiration and guidance in presenting this book.

It is hoped that the book in its new form will enjoy its ever increasing popularity.

Regards

Dr. Pankaj Goyal



# Preface

✍ This book has been written to meet the growing requirements of candidates appearing for Senior Computer Instructor and other competitive Examinations. Though every candidate has ability to succeed but competitive environment, in-depth knowledge, quality guidance, time management and good source of study is required to achieve goals.

This book includes Multiple Choice Questions (MCQ's) which works as a mock exam practice for the reader. Questions of all the subject have been organized in systematic, concepts oriented and error less manner so that it become easy and interesting for even a beginner to understand. It is a very convenient book and must be solved by candidate aiming for competitive exams.

After solving this booklet students can feel encouraged and develop confidence to attempt each and every type of numerical as well as theoretical problems. Each problems explains solving approach so that at the end, so the reader is well equipped to be able to apply any type of problem solving requirement and distinctly choose one strategy or type from the other.

We hope this book will be proved an important tool to succeed in Basic and Senior Computer Instructor and other competitive Examinations.

Even though, enough readings were given for correcting the error and printing mistakes, due to human tendency there could be some minor typos in the book. If any such typos found, they will be highly appreciated and in corporated in the next edition. Also, please provide your valuable suggestions at :[engineers.academy.india@gmail.com](mailto:engineers.academy.india@gmail.com)

Wish you all the best. Have a nice reading.

**Team of  
Engineers Academy Publications**

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## 1

# Fundamental of Computer

## OBJECTIVE QUESTION

- What is the precedence of arithmetic operators (from highest to lowest)?
  - (a) %, \*, /, +, -
  - (b) %, +, /, \*, -
  - (c) +, -, %, \*, /
  - (d) %, +, -, \*, /
- Which of the following is not an arithmetic operation?
  - (a)  $a * = 10;$
  - (b)  $a / = 10;$
  - (c)  $a ! = 10;$
  - (d)  $a \% = 10;$
- Which of the following data type will throw an error on modulus operation(%)?
  - (a) char
  - (b) short
  - (c) int
  - (d) float
- 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) +, -, \*, /, %
- Which of the following operators takes only integer operands?
  - (a) +
  - (b) \*
  - (c) /
  - (d) %
- In an expression involving || operator, evaluation
  - I. Will be stopped if one of its components evaluates to false
  - II. Will be stopped if one of its components evaluates to true
  - III. Takes place from right to left
  - IV. Takes place from left to right
  - (a) I and II
  - (b) I and III
  - (c) II and III
  - (d) II and IV
- Operator % in C Language is called?
  - (a) Percentage Operator
  - (b) Quotient Operator
  - (c) Modulus
  - (d) Division
- Output of an arithmetic expression with integers and real numbers is \_\_\_ by default?
  - (a) Integer
  - (b) Real number
  - (c) Depends on the numbers used in the expression
  - (d) None of the above
- If both numerator and denominator of a division operation in C language are integers, then we get
  - (a) Expected algebraic real value
  - (b) Unexpected integer value
  - (c) Compiler error
  - (d) None of the above
- Can you use C Modulo Division operator % with float and int?
  - (a) Only int variables
  - (b) Only float variables
  - (c) int or float combination
  - (d) Numerator int variable, Denominator any variable
- Select one of the true statement for the compiler?
  - (a) The input of the compiler is source program
  - (b) It translates the source code into object code as a whole
  - (c) The output of the compiler is object code
  - (d) All of above
- The language processor translates the program into object code as a whole...
  - (a) linker
  - (b) debugger
  - (c) compiler
  - (d) interpreter
- Finding and solving errors in the source code is...
  - (a) desk checking
  - (b) debugging
  - (c) decoding
  - (d) testing
- Translates the source code into machine language...
  - (a) operating system
  - (b) programming language
  - (c) language processor
  - (d) all of these
- The step by step procedure for solving a problem...
  - (a) programming
  - (b) algorithm
  - (c) planing
  - (d) flowchart
- ..... language is not an object oriented pogramming language...
  - (a) visual basic
  - (b) c
  - (c) c++
  - (d) java
- Communication between user and the computer is...
  - (a) Programming language
  - (b) Software
  - (c) Syntax
  - (d) English language
- A process is a \_\_\_\_\_.
  - (a) single thread of execution
  - (b) program in the execution
  - (c) program in the memory
  - (d) task
- The word processing feature that catches most random typographical errors and misspellings is known as \_\_\_\_\_.
  - (a) Grammar checker
  - (b) Spell checker
  - (c) Word checker
  - (d) None of the these

20. What is smallest unit of the information?  
(a) A bit (b) A byte  
(c) A block (d) A nibble
21. How is the data stored on the diskette?  
(a) Ink (b) Laser bubbles  
(c) Magnetism (d) Circuits
22. Which of the following is the smallest visual element on a video monitor?  
(a) Character (b) Pixel  
(c) Byte (d) Bit
23. Which of the following natural element is the primary element in computer chips?  
(a) Silicon (b) Carbon  
(c) Iron (d) Uranium
24. Which of the following programs enables you to calculate numbers related to rows and columns?  
(a) Window program (b) Spreadsheet program  
(c) Graphics program (d) Word program
25. Which of the following is a structured programming technique that graphically represents the detailed steps required to solve a program?  
(a) Object-oriented programming  
(b) Pseudocode  
(c) Flowchart  
(d) Top-down design
26. Which of the following is an output device?  
(a) Keyboard (b) Mouse  
(c) Light pen (d) VDU
27. Which of the following is an input device?  
(a) Plotter (b) Printer  
(c) VDU (d) Mouse
28. Which of the following is the extension of Notepad?  
(a) .txt (b) .xls  
(c) .ppt (d) .bmp
29. BIOS is used?  
(a) By operating system (b) By compiler  
(c) By interpreter (d) By application software
30. What is the mean of the Booting in the system?  
(a) Restarting computer (b) Install the program  
(c) To scan (d) To turn off
31. A computer is accurate, but if the result of a computation is false, what is the main reason for it?  
(a) Power failure (b) The computer circuits  
(c) Incorrect data entry (d) Distraction
32. The central processing unit is located in the \_\_\_\_\_.  
(a) Hard disk (b) System unit  
(c) Memory unit (d) Monitor
33. Which one of the following groups contains graphical file extensions?  
(a) JPG, CPX, GCM (b) GIF, TCE, WMF  
(c) TCP, JPG, BMP (d) JPG, GIF, BMP
34. Which of the following is equal to a gigabyte?  
(a) 1024 bytes (b) 512 GB  
(c) 1024 megabytes (d) 1024 bits
35. How many bytes does 4 kilobytes represent?  
(a) 512 (b) 1024  
(c) 4096 (d) 8192
36. Which type of program acts as an intermediary between a user of a computer and the computer hardware?  
(a) Operating system (b) User thread  
(c) Superuser thread (d) Application program
37. What kind of language can computer understand?  
(a) Normal language (b) Computer language  
(c) Assembly language (d) High-level language
38. Which of the following is not one of the internal components of a CPU?  
(a) Control sequencer (b) M-D-R  
(c) M-A-R (d) Floppy disk
39. What is the speed of computer measured in?  
(a) Nanoseconds (b) Kilo-seconds  
(c) Gigahertz (d) Megabytes
40. What is the full form of RAM?  
(a) Remote Access Memory (b) Random Access Memory  
(c) Remote Access Memory (d) Random Access Memory
41. What is the full form of DRAM?  
(a) Dynamic Remote Access Memory  
(b) Dynamic Random-Access Memory  
(c) Dependent Remote Access Memory  
(d) Dependent Random-Access Memory
42. Which one of the following software applications would be the most appropriate for performing numerical and statistical calculations?  
(a) Database (b) Document processor  
(c) Graphics package (d) Spreadsheet
43. Which of the following is not considered hardware?  
(a) Operating system (b) CPU  
(c) Keyboard (d) Hard disk
44. Which of the following is exclusively a sequential access storage device?  
(a) Hard disk (b) Floppy disk  
(c) Magnetic tape (d) DVD
45. Akshat has created a story of ten pages, but only wants to print the first two pages. Which printer command should he choose?  
(a) Print all (b) Print from 1 to 2  
(c) Page setup (d) Print Preview

46. What is the full form of SRAM?
- (a) Static Random-Access Memory
  - (b) Static Remote-Access Memory
  - (c) Setup Random-Access Memory
  - (d) Setup Remote-Access Memory
47. What is the full form of USB?
- (a) Unshielded System Board
  - (b) Universal System Board
  - (c) Unidentified Serial Bus
  - (d) Universal Serial Bus
48. Which one of the following is not a form of data storage media?
- (a) A database
  - (b) Magnetic tape
  - (c) Magnetic disc
  - (d) Optical disc
49. What are five main components of a computer system?
- (a) CPU, CD-ROM, Mouse, Keyboard, Sound card
  - (b) Memory, Video card, Monitor, Software, Hardware
  - (c) Modem, Keyboard, Word Processor, Printer, Screen
  - (d) CPU, Memory, System bus, Input, Output
50. Which one of the following is the best fire extinguisher for IT equipment?
- (a) Dry powder
  - (b) Bromo chloride
  - (c) CO<sub>2</sub>
  - (d) Water
51. The use of the IC in a computer has \_\_\_\_\_.
- (a) Increased the amount of heating
  - (b) Reduced the size and cost of computers
  - (c) Reduced the peripheral devices to be used
  - (d) Reduced the performance capacity of the computer
52. Consider the following path C:\Device\Module\Module 1. What is the name of the file in this path?
- (a) Device
  - (b) Module
  - (c) Module 1
  - (d) C
53. What is the full form of SCSI?
- (a) Standard computer systems interface
  - (b) Small computer systems interface
  - (c) Super computer systems interface
  - (d) Small computer standard interface
54. Which one of the following is not an input device?
- (a) Keyboard
  - (b) Mouse
  - (c) Speaker
  - (d) Scanner
55. Which one of the following is an example of browser software?
- (a) Microsoft Word
  - (b) Notepad
  - (c) Internet navigator
  - (d) Internet explorer
56. Which one of the following commands can be used to work on a file?
- (a) Ctrl + XY
  - (b) Ctrl + 2
  - (c) Ctrl + C
  - (d) None of these
57. Which of the following devices is used for gaming?
- (a) Speaker
  - (b) Mouse
  - (c) Joystick
  - (d) None of these
58. Which of the following commands remove the paragraph formatting?
- (a) Ctrl + L
  - (b) Copy
  - (c) Open
  - (d) Ctrl + Q
59. Which of the following memory cannot be directly accessed?
- (a) Primary memory
  - (b) Secondary memory
  - (c) RAM
  - (d) DRAM
60. Which one of the following printers is suitable for printing sprocket-fed carbon copies?
- (a) Normal printer
  - (b) Solid Ink printer
  - (c) Dot-matrix printer
  - (d) Business Inkjet printer
61. The speed of a modern printer is generally measured in \_\_\_\_\_.
- (a) LPS
  - (b) PPM
  - (c) PPS
  - (d) DPI
62. Which of the following languages does a computer understand?
- (a) JAVA language
  - (b) C language
  - (c) Binary language
  - (d) Object language
63. The four bits are called \_\_\_\_\_.
- (a) Byte
  - (b) Nibble
  - (c) Octet
  - (d) Bit
64. What is the full form of VDU?
- (a) Virtual Development User
  - (b) Virtual Detection Unit
  - (c) Visual Detection Unit
  - (d) Visual Display Unit
65. Which of the following statements is correct about the PCI?
- (a) PCI is a hardware device.
  - (b) PCI is software that is used to transfer the data.
  - (c) PCI is an interface of the OS.
  - (d) All of these
66. What is the full form of the EEPROM?
- (a) Electrically Erasable Process Read-Only Memory
  - (b) Electrically Erasable Programmable Read-Only Memory
  - (c) Electrical Erase Program Read-Only Memory
  - (d) Electron Erase Program Read-Only Memory
67. Which of the following is a non-volatile memory chip?
- (a) EEPROM
  - (b) RAM
  - (c) DRAM
  - (d) SRAM

68. In which of the following, the second-generation computer was based?
- (a) Transistor (b) Electron tube  
(c) Electron ray (d) Vacuum tube
69. In which of the following computer-generation vacuum tubes were used?
- (a) First-generation (b) Second-generation  
(c) Third-generation (d) Fourth-generation
70. What is a single dot on a computer screen called?
- (a) Desktop (b) Color dot  
(c) Pixel (d) Screen dot
71. Which of the following commands cannot be used to work on a file?
- (a) Ctrl + Z (b) Ctrl + Y  
(c) Ctrl + I (d) None of the these
72. Which of the following language was used in first-generation computers?
- (a) Java (b) Python  
(c) Machine language (d) All of the these
73. Which of the following statement is correct about the URL?
- (a) URL is a software that connects to the internet  
(b) URL is the address of the web page  
(c) URL is the domain name  
(d) All of the these
74. Which one of the following parts is called the brain of the computer?
- (a) ALU (b) Monitor  
(c) UPS (d) CPU
75. Which of the following device is not a portable device?
- (a) DVD (b) Mobile phone  
(c) Pen drive (d) None of the these
76. Which of the following memory is non-volatile memory?
- (a) Secondary memory (b) Random memory  
(c) RAM (d) ROM
77. Which of the following type of devices is a computer microphone?
- (a) Output device (b) Speaker device  
(c) Input device (d) Keyboard device
78. What is the ".BAT" extension?
- (a) System file (b) Backup file  
(c) Storage file (d) None of the these
79. Which of the following device is used for both input and output?
- (a) Monitor (b) Speaker  
(c) Scanner (d) Modem
80. Which of the following device is a portable device?
- (a) Laptop (b) Computer Monitor  
(c) CPU (d) None of the these
81. Which of the following two memory is the main memory in a computer?
- (a) Primary memory and Secondary memory  
(b) RAM and ROM  
(c) Random memory and Sequential memory  
(d) Primary memory and Sequential memory
82. Which of the following statement is correct about the DVD?
- (a) DVD is an optical disk.  
(b) DVD is very costly.  
(c) It is not a portable device, i.e., it cannot be carried anywhere easily.  
(d) It has very poor video and sound quality.
83. \_\_\_\_\_ is the assembly language for an imaginary architecture.
- (a) Byte code (b) Machine code  
(c) Native code (d) Executable code
84. JIT stands for?
- (a) Just in time (b) Jump in time  
(c) Jump in text (d) Jump in terms
85. JVM stands for?
- (a) Java virtual machine (b) Java visual machine  
(c) JRE virtual machine (d) JRE visual machine
86. These devices provide a means of communication between a computer and outer world.
- (a) I/O (b) Storage  
(c) Compact (d) Drivers
87. The I/O devices are sometimes called the peripheral devices because they surround the CPU and memory of the computer system.
- (a) True (b) False
88. Which of the following is not a 7-and-draw device?
- (a) Keypad (b) Trackball  
(c) Touch screen (d) Mouse
89. A device used for video games, flight simulators, training simulators and for controlling industrial robots.
- (a) Mouse (b) Light pen  
(c) Joystick (d) Keyboard
90. The unattended interactive information systems such as automatic teller machine or ATM is called as \_\_\_\_\_
- (a) Kiosks (b) Sioks  
(c) Cianto (d) Kiaks
91. Input Devices that use a special ink that contains magnetizable particles of iron oxide are \_\_\_\_\_
- (a) Optical disks (b) Magnetic disks  
(c) MICR (d) Magnetic drives
92. MICR character set consists of only 2 digits 0 and 1.
- (a) True (b) False

93. A printer that prints one line at a time and has a predefined set of characters is called \_\_\_\_\_
- (a) Laser (b) Drum  
(c) Inkjet (d) Impact
94. Which of the following is a name of plotter as well as a printer?
- (a) Flatbed (b) Laser  
(c) Drum (d) Impact
95. Name the device that converts text information into spoken sentences.
- (a) Speech Sensors  
(b) Compact convertors  
(c) Speech Synthesizers  
(d) Voice systems
96. Which of the following is not a part of a digitizer?
- (a) Digitizing tablet (b) Cursor  
(c) Stick (d) Stylus
97. Which is the device used for converting maps, pictures and drawings into digital form for storage in computers?
- (a) Digitizer (b) Scanner  
(c) Image Scanner (d) MICR
98. Which of the following Printers have a speed in the range of 40-300 characters per second?
- (a) Inkjet (b) Laser  
(c) Dot matrix (d) Drum
99. Which of the following is a temporary output?
- (a) Hard copy (b) Soft copy  
(c) Duplicate copy (d) On paper
100. The language made up of binary coded instructions.
- (a) Machine (b) C  
(c) BASIC (d) High level
101. Binary code comprises of digits from 0 to 9.
- (a) True (b) False
102. The \_\_\_\_\_ contains the address of the next instruction to be executed.
- (a) IR (b) PC  
(c) Accumulator (d) System counter
103. The computer that process both analog and digital is called \_\_\_\_\_?
- (a) Analog computer (b) Digital computer  
(c) Hybrid computer (d) Mainframe computer
104. Which of the following is not a type of computer on the basis of operation ?
- (a) Remote (b) Hybrid  
(c) Analog (d) Digital
105. Computer that operates on digital data ?
- (a) Remote (b) Hybrid  
(c) Analog (d) Digital
106. This type of computer is mostly used for automatic operations?
- (a) Remote (b) Hybrid  
(c) Analog (d) Digita
107. Which are used for solving complex application such as Global Weather Forecasting?
- (a) Super computers (b) Public computers  
(c) Mobile computers (d) Hybrid computers
108. The invention of gave birth to the much cheaper micro computers?
- (a) Mainframes (b) Microcomputers  
(c) Microprocessors (d) PDAs
109. Which is a computer program?
- (a) Operating system  
(b) Application package  
(c) Utility software  
(d) All of the above computer programs
110. In which of the following environment, data is held in a temporary computer file?
- (a) Batch processing (b) Online processing  
(c) Online batch processing (d) None of these
111. A basic element of data in a file.
- (a) Memory (b) Record  
(c) Field (d) Value
112. Records are treated as a unit.
- (a) True (b) False
113. \_\_\_\_\_ refers to the logical structuring of records.
- (a) Physical organisation (b) Logical organisation  
(c) Structural organisation (d) File organisation
114. Which of the following is not an appropriate criterion for file organisation?
- (a) Larger access time (b) Ease of update  
(c) Simple maintenance (d) Economy of storage
115. \_\_\_\_\_ itself is a file owned by the operating system
- (a) Logical file (b) Record  
(c) Database (d) Directory
116. Which of the following isn't a part of the file directory?
- (a) Attributes (b) Protocol  
(c) Location (d) Ownership
117. Allocated size of a file comes under?
- (a) Basic information  
(b) Address information  
(c) Access control information  
(d) Usage information
118. Which of the following is not a part of the usage information?
- (a) Data created (b) Identity of creator  
(c) Owner (d) Last date modified

# 3

## Programming Concept (C++)

### OBJECTIVE QUESTION

- Which of the following is the correct syntax to add the header file in the C++ program?  
(a) #include<userdefined>  
(b) #include "userdefined.h"  
(c) <include> "userdefined.h"  
(d) Both (a) and (b)
- Which of the following is the correct syntax to print the message in C++ language?  
(a) cout <<"Hello All!"; (b) Cout << Hello All! ;  
(c) Out <<"Hello All!; (d) None of the above
- Which of the following is the correct identifier?  
(a) \$var\_name (b) VAR\_123  
(c) varname@ (d) None of the above
- What is the output of the following program?  

```
#include<iostream>
using namespace std;
main() {
    int const a = 5;
    a++;
    cout<<a;
}
```

  
(a) 5 (b) 6  
(c) Runtime error (d) Compile error
- What is the output of the following program?  

```
#include<iostream>
using namespace std;
void f(){
    cout<<"Hello"<<endl;
}
main(){
}
```

  
(a) No output  
(b) Error, as the function is not called.  
(c) Error, as the function is defined without its declaration  
(d) Error, as the main() function is left empty
- What is the size of 'int'?  
(a) 2 (b) 4  
(c) 8 (d) Compiler dependent
- What is the output of the following program?  

```
main() {
}
```

  
(a) No output (b) Garbage  
(c) Compile error (d) Runtime error
- Which of the following is the address operator?  
(a) @ (b) #  
(c) & (d) %
- Which of the following features must be supported by any programming language to become a pure object-oriented programming language?  
(a) Encapsulation (b) Inheritance  
(c) Polymorphism (d) All of the above
- The programming language that has the ability to create new data types is called \_\_\_\_\_.  
(a) Overloaded (b) Encapsulated  
(c) Reprehensible (d) Extensible
- Which of the following is the original creator of the C++ language?  
(a) Dennis Ritchie (b) Ken Thompson  
(c) Bjarne Stroustrup (d) Brian Kernighan
- Which of the following is the correct syntax to read the single character to console in the C++ language?  
(a) Read ch() (b) Getline vh()  
(c) get(ch) (d) Scanf(ch)
- The C++ language is \_\_\_\_\_ object-oriented language.  
(a) Pure Object oriented  
(b) Not Object oriented  
(c) Semi Object-oriented or Partial Object-oriented  
(d) None of the above
- What is the full form of oop?  
(a) Object oriented programming  
(b) Oriented object programming  
(c) Office oriented programming  
(d) office objective programming
- What is the output of below program?  

```
int main()
{
```

```
int a = 10;
cout<<a++;
return 0;
}
```

- (a) 10 (b) 11  
(c) 12 (d) Not defined

16. What is the output of below program?

```
class base
{
public:
    base()
    {
        cout<<"BCon";
    }
    ~base()
    {
        cout<<"BDest ";
    }
};

class derived: public base
{
public:
    derived()
    {
        cout<<"DCon ";
    }
    ~derived()
    {
        cout<<"DDest ";
    }
};

int main()
{
    derived object;
    return 0;
}
```

- (a) Dcon DDest  
(b) Dcon DDest BCon BDest  
(c) BCon DCon DDest BDest  
(d) BCon DCon BDes DDest

17. Which of the following features is required to be supported by the programming language to become a pure object-oriented programming language?

- (a) Encapsulation (b) Inheritance  
(c) Polymorphism (d) All of the above

18. Which of the following comment syntax is correct to create a single-line comment in the C++ program?

- (a) //Comment (b) /Comment/  
(c) Comment// (d) None of the above

19. For inserting a new line in C++ program, which one of the following statements can be used?

- (a) \n (b) \r  
(c) \a (d) None of the above

20. Which one of the following represents the tab?

- (a) \n (b) \t  
(c) \r (d) None of the above

21. Which of the following statement is correct about Virtual Inheritance?

- (a) It is a technique to ensure that a private member of a base class can be accessed  
(b) It is a technique to optimize the multiple inheritances  
(c) It is a technique to avoid the multiple inheritances of the classes  
(d) It is a C++ technique to avoid multiple copies of the base class into the derived or child classes

22. Consider the following given program and choose the most appropriate output from the given options:

```
#include<iostream>
using namespace std;
class Base {
public:
    Base()
    { cout<<"Constructing Base \n"; }
    ~Base()
    { cout<<"Destructing Base \n"; }
};

class Derived: public Base {
public:
    Derived()
    { cout<<"Constructing Derived \n"; }
    ~Derived()
    { cout<<"Destructing Derived \n"; }
};

int main(void)
{
    Derived *d = new Derived();
    Base *b = d;
    delete b;
    return 0;
}
```

- (a) Constructing base, Constructing Derived, Destructing Base, Destructing Derived  
(b) Constructing base, Constructing Derived, Destructing Base  
(c) Constructing base, Constructing Derived, Destructing Derived, Destructing Base  
(d) None of the above
23. Which of the following can be considered as the members that can be inherited but not accessible in any class?
- (a) Public (b) Protected

- (c) Private (d) Both A and C
24. Which of the following can be used to create an abstract class in the C++ programming language?
- (a) By using the pure virtual function in the class  
 (b) By declaring a virtual function in the base class  
 (c) By declaring the virtual keyword afterward, the class Declaration  
 (d) None of the above
25. Which of the following statement is not true about C++?
- (a) Members of a class are public by default  
 (b) A class cannot have the private members  
 (c) A structure can have the member functions  
 (d) All of the above
26. Which one of the following cannot be used with the virtual keyword?
- (a) Constructor (b) Destructor  
 (c) Member function (d) None of the above
27. Which of the following is used for implementing the late binding?
- (a) Operator Functions (b) Constant Functions  
 (c) Virtual Functions (d) Both A and B
28. Which of the following is not a kind of inheritance?
- (a) Distributed (b) Multiple  
 (c) Multi-level (d) Hierarchal
29. Which type of approach is used by the C++ language?
- (a) Right to left (b) Left to right  
 (c) Top to bottom (d) Bottom-up
30. Which of the following concept refers to adding new components to the program at the run time?
- (a) Dynamic Loading (b) Dynamic binding  
 (c) Data hiding (d) Both A & B
31. How can one implement the compile-time Polymorphism in the C++ programming language?
- (a) By using the Template  
 (b) By using the concepts of inheritance  
 (c) By using both the virtual functions and inheritance  
 (d) By using only the virtual functions
32. How can one implement the run-time Polymorphism in the C++ programming language?
- (a) By using the Template  
 (b) By using the concepts of inheritance  
 (c) By using both the virtual functions and inheritance  
 (d) By using only the virtual functions
33. Among the following, which shows the Multiple inheritances?
- (a) X,Y->Z (b) X->Y->Z  
 (c) X->Y;X->Z (d) None of the above
34. Read the following program carefully and find out which concept from the given options is not used or missing in the following program?
- Program
- ```

class A
{
    int x;
    public:
    void print() {cout<<"hello"<<x;}
}
class B: public A
{
    int y;
    public:
    void assign(int a){y = a;}
}
  
```
- (a) Polymorphism (b) Encapsulation  
 (c) Inheritance (d) Abstraction
35. Which of the following options correctly explains the concept of Polymorphism?
- (a) int func(float);  
 float func(int, int, char);  
 (b) int func(int);  
 int func(int);  
 (c) int func(int, int);  
 float func1(float, float);  
 (d) None of the above
36. Which of the following given can be considered as the correct output of the following C ++ code?
- ```

#include<iostream>
usingnamespace std;
int main()
{
    int x=5;
    int y=5;
    auto check = [&x] ()
    {
        x =10;
        y =10;
    }
    check();
    cout<<"Value of x: "<<x<<endl;
    cout<<"Value of y: "<<y<<endl;
    return0;
}
  
```
- (a) It will result in an Error  
 (b) Value of a: 10  
 (c) Value of a: 5  
 (d) It will obtain Segmentation fault
37. Which of the following is usually represented by the first parameters of the main function?
- (a) Number of command-line arguments  
 (b) List of command-line arguments  
 (c) Dictionary of command-line arguments

- (d) Stack of command-line arguments
38. What will happen when we move the try block far away from catch block?
- Reduces the amount of code in the cache
  - Increases the amount of code in the cache
  - Don't alter anything
  - Increases the amount of code
39. What will be the output of the following C++ code?
- ```
#include <iostream>
#include <string>
using namespace std;
int main ()
{
int num = 3;
string str_bad = "wrong number used";
try
{
if( num ==1)
{
throw 5;
}
if( num ==2)
{
throw 1.1f;
}
if( num !=1|| num !=2)
{
throw str_bad;
}
}
catch(int a)
{
cout<<"Exception is: "<< a <<endl;
}
catch(float b)
{
cout<<"Exception is: "<< b <<endl;
}
catch(...)
{
cout<<str_bad<<endl;
}
return 0;
}
```
- Exception is 5
  - Exception is 1.1f
  - Exception is 1.6g
  - Wrong number used
40. Which one of the following given statements is correct about the increment operator?
- Increment operator(or ++ ) usually adds 2 to its operand
  - Decrement operator ++ subtracts 1 to its operand
  - Decrement operator -- subtracts 3 to its operand
  - Increment operator (or ++ ) usually adds 1 to its operand
41. What will be the output of the following C++ code?
- ```
#include <iostream>
#include <cstring>
using namespace std;
int main ()
{
char str1[10] = "Hello";
char str2[10] = "World";
char str3[10];
int len ;
strcpy( str3, str1);
strcat( str1, str2);
len = strlen(str1);
cout<<len<<endl;
return 0;
}
```
- 5
  - 55
  - 10
  - 11
42. Read the following given program of C++ and predict the most appropriate output of the program?
- ```
#include<iostream>
using namespace std;
int&fun()
{
int x = 10;
return x;
}
int main()
{
fun() = 30;
cout<< fun();
return 0;
}
```
- It may cause the compilation error
  - It may cause the runtime error
  - It will work fine
  - None of the above
43. Read the following given program of C++ and predict the most appropriate output of the program?
- ```
#include<iostream>
using namespace std;
int main()
{
int x = 10;
int & ref = x;
ref = 20;
cout<< "x = " << x <<endl ;
x = 30;
cout<< "ref = " << ref<<endl;
return 0;
}
```
- x = 20  
ref = 30
  - x = 20  
ref = 20

### Static Data Members

662. How many catch blocks can a class have?  
 (a) Only 1 (b) 2  
 (c) 3 (d) As many as required
663. Since which version of java is multiple exception catch was made possible?  
 (a) Java 4 (b) Java 5  
 (c) Java 6 (d) Java 7
664. To catch more than one exception in one catch block, how are the exceptions separated in the syntax?  
 (a) Vertical bar (b) Hyphen  
 (c) Plus (d) Modulus
665. If a catch block accepts more than one exceptions then \_\_\_\_\_  
 (a) The catch parameters are not final  
 (b) The catch parameters are final  
 (c) The catch parameters are not defined  
 (d) The catch parameters are not used
666. Which among the following handles the undefined class in program?  
 (a) ClassNotFoundException (b) NoClassException  
 (c) ClassFoundException (d) ClassNotFoundExpection
667. If classes produce some exceptions, then \_\_\_\_\_  
 (a) Their respective catch block must be defined  
 (b) Their respective catch blocks are not mandatory  
 (c) Their catch blocks should be defined inside main function  
 (d) Their catch blocks must be defined at the end of program
668. Which among the following is true?  
 (a) Only the base class catch blocks are important  
 (b) Only the derived class catch blocks are important  
 (c) Both the base and derived class catch blocks are important  
 (d) If base and derived classes both produce exceptions, program doesn't run
669. Which is the necessary condition to define the base and derived class catch blocks?  
 (a) Base class catch should be defined first  
 (b) Derived class catch should be defined first  
 (c) Catch block for both the classes must not be defined  
 (d) Catch block must be defined inside main function
670. Only the base class catch box can handle more than one exception in single block.  
 (a) True (b) False
671. Which condition among the following might result in memory exception?  
 (a) False if conditions  
 (b) Nested if conditions that are all false  
 (c) Infinite loops  
 (d) Loop that runs exactly 99 times
672. Which among the following best defines static variables members?  
 (a) Data which is allocated for each object separately  
 (b) Data which is common to all the objects of a class  
 (c) Data which is common to all the classes  
 (d) Data which is common to a specific method
673. Which keyword should be used to declare static variables?  
 (a) static (b) stat  
 (c) common (d) const
674. Any changes made to static data member from one member function \_\_\_\_\_  
 (a) Is reflected to only the corresponding object  
 (b) Is reflected to all the variables in a program  
 (c) Is reflected to all the objects of that class  
 (d) Is constant to that function only
675. Which is the correct syntax for declaring static data member?  
 (a) static memberName dataType;  
 (b) dataType static memberName;  
 (c) memberName static dataType;  
 (d) static dataType memberName;
676. The static data member \_\_\_\_\_.  
 (a) Must be defined inside the class  
 (b) Must be defined outside the class  
 (c) Must be defined in main function  
 (d) Must be defined using constructor
677. The syntax for defining the static data members is \_\_\_\_\_  
 (a) dataType className :: memberName = value;  
 (b) dataType className : memberName = value;  
 (c) dataType className . memberName = value;  
 (d) dataType className -> memberName =value;
678. If static data members have to be used inside a class, those member functions \_\_\_\_\_.  
 (a) Must not be static member functions  
 (b) Must not be member functions  
 (c) Must be static member functions  
 (d) Must not be member function of corresponding class
679. The static data member \_\_\_\_\_.  
 (a) Can be accessed directly  
 (b) Can be accessed with any public class name  
 (c) Can be accessed with dot operator  
 (d) Can be accessed using class name if not using static member function

680. Which among the following is the correct syntax to access static data member without using member function?

- (a) className -> staticDataMember;
- (b) className :: staticDataMember;
- (c) className : staticDataMember;
- (d) className . staticDataMember;

681. Which data members among the following are static by default?

- (a) extern                      (b) integer
- (c) const                        (d) void

682. What is the output of the following program?

```
class Test
{
private:
    static int x;
public:
    static void fun()
    {
        cout<<"+x << " ";
    }
};
int Test ::x=20;
void main()
{
    Test x;
    x.fun();
    x.fun();
}
```

- (a) 20 22                      (b) 20 21
- (c) 21 22                      (d) 22 23

683. Whenever any static data member is declared in a class \_\_\_\_\_

- (a) Only one copy of the data is created
- (b) New copy for each object is created
- (c) New memory location is allocated with each object
- (d) Only one object uses the static data

684. If object of class are created, then the static data members can be accessed \_\_\_\_\_

- (a) Using dot operator
- (b) Using arrow operator
- (c) Using colon
- (d) Using dot or arrow operator

685. What will be the output of the following program?

```
class Test
{
public:
    Test()
    {
        cout<<"Test's Constructor is Called "<<
```

```
endl;
    }
};

class Result
{
    static Test a;
public:
    Result()
    {
        cout<<"Result's Constructor is Called "<< endl;
    }
};

void main()
{
    Result b;
}
```

- (a) Test's Constructor is Called
- (b) Result's Constructor is Called
- (c) Result's Constructor Called Test's Constructor is Called
- (d) Test's Constructor Called Result's Constructor is Called

686. Which among the following is wrong syntax related to static data members?

- (a) className :: staticDataMember;
- (b) dataType className :: memberName =value;
- (c) static dataType memberName;
- (d) className : dataType -> memberName;

## Static Member Functions

687. Which among the following is correct definition for static member functions?

- (a) Functions created to allocate constant values to each object
- (b) Functions made to maintain single copy of member functions for all objects
- (c) Functions created to define the static members
- (d) Functions made to manipulate static programs

688. The static member functions \_\_\_\_\_.

- (a) Have access to all the members of a class
- (b) Have access to only constant members of a class
- (c) Have access to only the static members of a class
- (d) Have direct access to all other class members also

689. The static member functions \_\_\_\_\_.

- (a) Can be called using class name
- (b) Can be called using program name
- (c) Can be called directly
- (d) Can't be called outside the function

690. Which is correct syntax to access the static member functions with class name?
- className . functionName;
  - className -> functionName;
  - className : functionName;
  - className :: functionName;
691. Which among the following is not applicable for the static member functions?
- Variable pointers
  - void pointers
  - this pointer
  - Function pointers
692. Which among the following is true?
- Static member functions can't be virtual
  - Static member functions can be virtual
  - Static member functions can be declared virtual if it is pure virtual class
  - Static member functions can be used as virtual in Java
693. The static members are \_\_\_\_\_.
- Created with each new object
  - Created twice in a program
  - Created as many times a class is used
  - Created and initialized only once
694. Which among the following is true?
- Static member functions can be overloaded
  - Static member functions can't be overloaded
  - Static member functions can be overloaded using derived classes
  - Static member functions are implicitly overloaded
695. The static member functions \_\_\_\_\_.
- Can't be declared const
  - Can't be declared volatile
  - Can't be declared const or volatile
  - Can't be declared const, volatile or const volatile
696. Which keyword should be used to declare the static member functions?
- static
  - stat
  - const
  - common
697. The keyword static is used \_\_\_\_\_.
- With declaration inside class and with definition outside the class
  - With declaration inside class and not with definition outside the class
  - With declaration and definition wherever done
  - With each call to the member function
698. Which among the following can't be used to access the members in any way?
- Scope resolution
  - Arrow operator
  - Single colon
  - Dot operator
699. We can use the static member functions and static data member \_\_\_\_\_.
- Even if class object is not created
  - Even if class is not defined
  - Even if class doesn't contain any static member
  - Even if class doesn't have complete definition
700. The static data member \_\_\_\_\_.
- Can be mutable
  - Can't be mutable
  - Can't be integer
  - Can't be characters
701. If static data member are made inline, \_\_\_\_\_.
- Those should be initialized outside the class
  - Those can't be initialized with the class
  - Those can be initialized within the class
  - Those can't be used by class members

### Default Arguments

702. What are default arguments?
- Arguments which are not mandatory to be passed
  - Arguments with default value that aren't mandatory to be passed
  - Arguments which are not passed to functions
  - Arguments which always take same data value
703. Which is the correct condition for the default arguments?
- Those must be declared as last arguments in argument list
  - Those must be declared first in the argument list
  - Those can be defined anywhere in the argument list
  - Those are declared inside the function definition
704. If a member function have to be made both zero argument and parameterized constructor, which among the following can be the best option?
- Two normal and one default argument
  - At least one default argument
  - Exactly one default argument
  - Make all the arguments default
705. Which among the following function can be called without arguments?
- void add(int x, int y=0)
  - void add(int=0)
  - void add(int x=0, int y=0)
  - void add(char c)
706. If a function have all the default arguments but still some values are passed to the function then \_\_\_\_\_.
- The function will use the values passed to it
  - The function will use the default values as those are local
  - The function can use any value whichever is higher
  - The function will choose the minimum values

707. Which among the following is correct?
- void test(int x=0, int y, int z=0)
  - void test(int x=0, int=0)
  - void test(int x, int y=0)
  - void test(int x='c', int y)
708. What function will be called with the independent syntax "test(5,6,7);"?
- void test(int x, int y)
  - void test(int x=0, int y, int z)
  - int test(int x=0, y=0, z=0)
  - void test(int x, int y, int z=0)
709. Which among the following is a wrong call to the function void test(int x, int y=0, int z=0)?
- test(5,6,7);
  - test(5);
  - test();
  - test(5,6);
710. Default arguments are \_\_\_\_\_.
- Only allowed in the parameter list of the function declaration
  - Only allowed in the return type of the function declaration
  - Only allowed with the class name definition
  - Only allowed with the integer type values
711. Which among the following is false for default arguments?
- Those are not allowed with a declaration of pointer to functions
  - Those are not allowed with the reference to functions
  - Those are not allowed with the typedef declarations
  - Those are allowed with pointer and reference to function declaration
712. The non-template functions can be added with default arguments to already declared functions \_\_\_\_\_
- If and only if the function is declared again in the same scope
  - If and only if the function is declared only once in the same scope
  - If and only if the function is declared in different scope
  - If and only if the function is declared twice in the program
713. The using declaration \_\_\_\_\_
- Doesn't carry over the default values
  - Carries over the known default arguments
  - Carries over only the normal arguments
  - Carries over only few default arguments
714. The names given to the default arguments are only looked up and \_\_\_\_\_ and are bound during declaration.
- Checked for availability
  - Checked for random access
  - Checked for accessibility
  - Checked for feasibility
715. The default argument get bound during declaration \_\_\_\_\_
- And are never executed
  - And are executed simultaneously
  - But are executed only if priority is given
  - But are executed during function call
716. The virtual function overrides \_\_\_\_\_
- Do not acquire base class declaration of default arguments
  - Do acquire base class declaration of default arguments
  - Do not link with the default arguments of base class
  - Do link with the default argument but only of derived classes

## Constructors Overloading

717. Which among the following is true for constructors overloading?
- Constructors can't be overloaded
  - Constructors can be overloaded using different signatures
  - Constructors can be overloaded with same signatures
  - Constructors can be overloaded with different return types
718. If a constructors should be capable of creating objects without argument and with arguments, which is a good alternative for this purpose?
- Use zero argument constructor
  - Use constructor with one parameter
  - Use constructor with all default arguments
  - Use default constructor
719. The Constructors with all the default arguments are similar as default constructors.
- True
  - False
720. Which among the following is true?
- The constructors overloading can be done by using different names
  - The constructors overloading can be done by using different return types
  - The constructors can be overloaded by using only one argument
  - The constructors must have the same name as that of class
721. Which among the following can be used in place of default constructor?
- constructorName(int x, int y=0)
  - constructorName(int x=0, int y=0)
  - constructorName(int x=0, int y)
  - constructorName(int x, int y)
722. Can a class have more than one function with all the default arguments?
- Yes, always
  - Yes, if argument list is different
  - No, because constructors overloading doesn't depend on argument list
  - No, never

# 5

# Programming Concept (JAVA)

## OBJECTIVE QUESTION

### Integer and Floating Data Types

- What is the range of short data type in Java?  
(a) -128 to 127  
(b) -32768 to 32767  
(c) -2147483648 to 2147483647  
(d) None of the mentioned
- What is the range of byte data type in Java?  
(a) -128 to 127  
(b) -32768 to 32767  
(c) -2147483648 to 2147483647  
(d) None of the mentioned
- Which of the following are legal lines of Java code?  
1. `int w =(int)888.8;`      2. `byte x =(byte)100L;`  
3. `long y =(byte)100;`      4. `byte z =(byte)100L;`  
(a) 1 and 2                      (b) 2 and 3  
(c) 3 and 4                      (d) All are correct
- An expression involving byte, int, and literal numbers is promoted to which of these?  
(a) int      (b) long      (c) byte      (d) float
- Which of these literals can be contained in float data type variable?  
(a) -1.7e+308                      (b) -3.4e+038  
(c) +1.7e+308                      (d) -3.4e+050
- Which data type value is returned by all transcendental math functions?  
(a) int      (b) float      (c) double      (d) long
- What will be the output of the following Java code?  

```
class average {  
    public static void main(String args[])  
    {  
        double num[]={5.5, 10.1, 11, 12.8, 56.9,  
        2.5};  
        double result;  
        result =0;  
        for(int i =0; i <6;++i)  
            result = result + num[i];
```

- ```
        System.out.print(result/6);  
    }  
}
```
- (a) 16.34                      (b) 16.566666644  
(c) 16.466666666666667      (d) 16.466666666666666
- What will be the output of the following Java statement?  

```
class output {  
    public static void main(String args[])  
    {  
        double a, b,c;  
        a =3.0/0;  
        b =0/4.0;  
        c=0/0.0;  
        System.out.println(a);  
        System.out.println(b);  
        System.out.println(c);  
    }  
}
```

  
(a) Infinity                      (b) 0.0  
(c) NaN                          (d) all of the mentioned
  - What will be the output of the following Java code?  

```
class increment {  
    public static void main(String args[])  
    {  
        int g =3;  
        System.out.print(++g *8);  
    }  
}
```

  
(a) 25                      (b) 24                      (c) 32                      (d) 33
  - What will be the output of the following Java code?  

```
class area {  
    public static void main(String args[])  
    {  
        double r, pi, a;  
        r =9.8;  
        pi =3.14;  
        a = pi * r * r;
```

```
System.out.println(a);
}
}
```

- (a) 301.5656                      (b) 301  
(c) 301.56                        (d) 301.56560000

11. What is the numerical range of a char data type in Java?

- (a) -128 to 127                    (b) 0 to 256  
(c) 0 to 32767                    (d) 0 to 65535

12. Which of these coding types is used for data type characters in Java?

- (a) ASCII                            (b) ISO-LATIN-1  
(c) UNICODE                        (d) None of these

13. Which of these values can a boolean variable contain?

- (a) True & False                    (b) 0 & 1  
(c) Any integer value              (d) True

14. Which of these occupy first 0 to 127 in Unicode character set used for characters in Java?

- (a) ASCII                            (b) ISO-LATIN-1  
(c) None of the mentioned        (d) ASCII and ISO-LATIN1

15. Which one is a valid declaration of a boolean?

- (a) boolean b1 = 1;                (b) boolean b2 = 'false';  
(c) boolean b3 = false;            (d) boolean b4 = 'true'

16. What will be the output of the following Java program?

```
class array_output {
    public static void main(String args[])
    {
        char array_variable []=newchar[10];
        for(int i =0; i <10;++i){
            array_variable[i]='i';
            System.out.print(array_variable[i]+"");
            i++;
        }
    }
}
```

- (a) i i i i i                        (b) 0 1 2 3 4  
(c) i j k l m                        (d) None of these

17. What will be the output of the following Java program?

```
class mainclass {
    public static void main(String args[])
    {
        char a ='A';
        a++;
        System.out.print((int)a);
    }
}
```

- (a) 66                      (b) 67                      (c) 65                      (d) 64

18. What will be the output of the following Java program?

```
class mainclass {
    public static void main(String args[])
    {
        boolean var1 =true;
        boolean var2 =false;
        if(var1)
            System.out.println(var1);
        else
            System.out.println(var2);
    }
}
```

- (a) 0                      (b) 1                      (c) true                      (d) false

19. What will be the output of the following Java code?

```
class booloperators {
    public static void main(String args[])
    {
        boolean var1 =true;
        boolean var2 =false;
        System.out.println((var1 & var2));
    }
}
```

- (a) 0                      (b) 1                      (c) true                      (d) false

20. What will be the output of the following Java code?

```
class asciicodes {
    public static void main(String args[])
    {
        char var1 ='A';
        char var2 ='a';
        System.out.println((int)var1 +" "+(int)var2);
    }
}
```

- (a) 162                      (b) 65 97                      (c) 67 95                      (d) 66 98

## Data Type-Enums

21. What is the order of variables in Enum?

- (a) Ascending order  
(b) Descending order  
(c) Random order  
(d) Depends on the order() method

22. Can we create an instance of Enum outside of Enum itself?

- (a) True                                      (b) False

23. What will be the output of the following Java code?

```
enum Season
{
```

```

    WINTER, SPRING, SUMMER, FALL
};
System.out.println(Season.WINTER.ordinal());

```

- (a) 0      (b) 1      (c) 2      (d) 3

24. If we try to add Enum constants to a TreeSet, what sorting order will it use?
- (a) Sorted in the order of declaration of Enums  
 (b) Sorted in alphabetical order of Enums  
 (c) Sorted based on order() method  
 (d) Sorted in descending order of names of Enums

25. What will be the output of the following Java code snippet?

```

class A
{
}

enum Enums extends A
{
    ABC, BCD, CDE, DEF;
}

```

- (a) Runtime Error  
 (b) Compilation Error  
 (c) It runs successfully  
 (d) EnumNotDefined Exception

26. What will be the output of the following Java code snippet?

```

enum Levels
{
    private TOP,
    public MEDIUM,
    protected BOTTOM;
}

```

- (a) Runtime Error  
 (b) EnumNotDefined Exception  
 (c) It runs successfully  
 (d) Compilation Error

27. What will be the output of the following Java code snippet?

```

enum Enums
{
    A, B, C;
    private Enums()
{
System.out.println(10);
}
}

publicclass MainClass

```

```

{
public static void main(String[] args)
{
Enum en = Enums.B;
}
}

```

- (a) 10  
 10  
 10  
 (b) Compilation Error  
 (c) 10  
 10  
 (d) Runtime Exception

28. Which method returns the elements of Enum class?

- (a) getEnums()      (b) getEnumConstants()  
 (c) getEnumList()      (d) getEnum()

29. Which class does all the Enums extend?

- (a) Object      (b) Enums  
 (c) Enum      (d) EnumClass

30. Are enums are type-safe?

- (a) True (b) False

### Data Type-BigDecimal

31. Which of the following is the advantage of BigDecimal over double?

- (a) Syntax      (b) Memory usage  
 (c) Garbage creation      (d) Precision

32. Which of the below data type doesn't support overloaded methods for +, -, \* and /?

- (a) int      (b) float  
 (c) double      (d) BigDecimal

33. What will be the output of the following Java code snippet?

```

double a =0.02;
double b =0.03;
double c = b - a;
System.out.println(c);
BigDecimal _a =newBigDecimal("0.02");
BigDecimal _b =newBigDecimal("0.03");
BigDecimal _c = b.subtract(_a);
System.out.println(_c);

```

- (a) 0.00999999999999998  
 0.01  
 (b) 0.01  
 0.00999999999999998

- (c) 0.01  
0.01  
(d) 0.009999999999999998  
0.009999999999999998
34. What is the base of BigDecimal data type?  
(a) Base 2 (b) Base 8  
(c) Base 10 (d) Base e
35. What is the limitation of toString() method of BigDecimal?  
(a) There is no limitation  
(b) toString returns null  
(c) toString returns the number in expanded form  
(d) toString uses scientific notation
36. Which of the following is not provided by BigDecimal?  
(a) scale manipulation  
(b) + operator  
(c) rounding (d) hashing
37. BigDecimal is a part of which package?  
(a) java.lang (b) java.math  
(c) java.util (d) java.io
38. What is BigDecimal.ONE?  
(a) wrong statement  
(b) custom defined statement  
(c) static variable with value 1 on scale 10  
(d) static variable with value 1 on scale 0
39. Which class is a library of functions to perform arithmetic operations of BigInteger and BigDecimal?  
(a) MathContext (b) MathLib  
(c) BigLib (d) BigContext
40. What will be the output of the following Java code snippet?

```
public class AddDemo
{
    public static void main(String args[])
    {
        BigDecimal b = new BigDecimal("23.43");
        BigDecimal br = new BigDecimal("24");
        BigDecimal bres = b.add(new BigDecimal("450.23"));
        System.out.println("Add: "+bres);
        MathContext mc = new MathContext(2,
        RoundingMode.DOWN);
        BigDecimal bdecMath = b.add(new BigDecimal("450.23"),
        mc);
        System.out.println("Add using MathContext: "+bdecMath);
    }
}
```

- (a) Compilation failure  
(b) Add: 473.66  
Add using MathContext: 4.7E+2  
(c) Add 4.7E+2  
Add using MathContext: 473.66  
(d) Runtime exception

## Data Type-Date, TimeZone

41. How to format date from one form to another?  
(a) SimpleDateFormat (b) DateFormat  
(c) SimpleFormat (d) DateConverter
42. How to convert Date object to String?  
(a) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd"); sdf.parse(new Date());  
(b) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd"); sdf.format(new Date());  
(c) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd"); new Date().parse();  
(d) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd"); new Date().format();
43. How to convert a String to a Date object?  
(a) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd"); sdf.parse(new Date());  
(b) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd"); sdf.format(new Date());  
(c) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd"); new Date().parse();  
(d) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd"); new Date().format();
44. Is SimpleDateFormat thread safe?  
(a) True (b) False
45. How to identify if a timezone is eligible for DayLight Saving?  
(a) useDaylightTime() of Time class  
(b) useDaylightTime() of Date class  
(c) useDaylightTime() of TimeZone class  
(d) useDaylightTime() of DateTime class
46. What is the replacement of joda time library in java 8?  
(a) java.time (JSR-310) (b) java.date (JSR-310)  
(c) java.joda (d) java.jodaTime
47. How is Date stored in database?  
(a) java.sql.Date (b) java.util.Date  
(c) java.sql.DateTimes (d) java.util.DateTimes
48. What does LocalTime represent?  
(a) Date without time  
(b) Time without Date  
(c) Date and Time  
(d) Date and Time with timezone