

**Subject: Imperative Programming**

**Class: F.Y.B.Sc.IT**

**Semester: I**

**Subject: Sample Questions**

1. UNIX Kernel is based\_\_\_\_\_  
A. Linux  
B. C  
C. C++  
D. C#
2. To use the input functions in the program\_\_\_\_\_header file has to be included.  
A. stdio.h  
B. conio.h  
C. string.h  
D. stdlib.h
3. \_\_\_\_\_is not the type of statement of C programming.  
A. Expression  
B. Compound  
C. Control  
D. Logical
4. << -bitwise operator shifts the number of bits of the given number in \_\_\_\_\_side.  
A. Right  
B. Left  
C. 2 bits right  
D. 2 bits left
5. The C program should have at least\_\_\_\_\_function.  
A. 1  
B. 2  
C. 3  
D. 0
6. What will be the output of following program:

```
main()
{
    int i = 3;
    {
        int i = 5, j = 6;
        printf("%d %d", i, j);
    }
    printf("%d %d", i, j);
}
```

- A. 3525
- B. 3656
- C. 5363
- D. 3355

7. What will be the output of the following program:

```
main()
{
    printf ("\n hi");
    printf ("\t hello");
    printf ("\\" all");
}
```

- A. hi hello" all
  - B. hihello"all
  - C. hi hello"all
  - D. hi hello" all
8. The \_\_\_\_\_ is basic data type.
- A. Pointer
  - B. Structure
  - C. Array
  - D. float
9. Character data type has \_\_\_\_\_ range.
- A. -128 to +127
  - B. -127 to +128
  - C. -129 to +128
  - D. -127 to +129
10. \_\_\_\_\_ is not the C Keyword.
- A. struct
  - B. int
  - C. long
  - D. medium
11. To print decimal, hexadecimal or octal integer value which conversion character conversion is used?
- A. h
  - B. d
  - C. i
  - D. x
12. %= is example for which operator?
- A. Comparison
  - B. Logical
  - C. Assignment
  - D. Relational
13. Which functions returns a value?
- A. main()
  - B. void main()

- C. int main( )
- D. int( )

14. Function that transmits only single character from the standard output device.

- A. printf( )
- B. puts( )
- C. putchar( )
- D. putc( )

15. A ternary operator, operates on \_\_\_\_\_ operands.

- A. one
- B. two
- C. multiple
- D. three

16. N=10; N++; Select the Correct Output.

- A. 10
- B. 11
- C. 9
- D. -11

17. Sum+=20, can also be written as.

- A. sum=sum+sum
- B. Sum=20+sum
- C. sum=sum+20
- D. Invalid Syntax]

18. The logical operator OR is defined as-

- A. True when all the condition true
- B. True when it converts true to false
- C. True when at least one condition is true
- D. Converts false to true & true to false

19. The operator << works as.

- A. Or
- B. Not
- C. Right shift
- D. Left shift

20. Which of the following is not a relational operator in C?

- A. >
- B. ==
- C. ||
- D. !=

21. What are types of Functions in C Language?

- A. Library Functions
- B. User Defined Functions

- C. Both Library and User Defined
- D. Customized

22. . What is the output of C Program.?

```
int main()
{   int a=9, b=5, c=8;
    if(!(a==9))
    {
        printf("Bear\n");
    }
    else
    {
        printf("Elephant\n");
    }
    printf("Fox");
    return 0; }
```

- A. Bear Fox
  - B. Elephant Fox
  - C. Fox
  - D. Compiler error
23. What will be the data type returned for the following C function?

```
#include
int func()
{
    return (double)(char)5.0;
}
```

- A. int
  - B. double
  - C. char
  - D. string
24. What is the output of this C code?

```
int main()
{
    int a = 2;
    if (a >> 1)
        printf("%d\n", a);
}
```

- A. 0
  - B. 1
  - C. 2
  - D. 4
25. The default parameter passing mechanism is?
- A. call by value
  - B. call by reference
  - C. call by value result
  - D. call by data
26. The \_\_\_\_\_ is used to break out of the case statements.
- A. Continue

- B. Break
- C. Default
- D. Case

27. A function is a subroutine that may include one or more \_\_\_\_\_ designed to perform a specific task.

- A. Function
- B. Statement
- C. Libraries
- D. Data types

28. What is the output of C Program.?

```
int main()
{
    int a=5, b=8;

    if( a==5 && (b=9) )
    {
        printf("Gorilla Glass=");
    }
    printf("%d %d", a, b);

    return 0; }
```

- A. 5 8
- B. 5 9
- C. Gorilla Glass=5 8
- D. Gorilla Glass=5 9

29. What is the output of C Program.?

```
int main()
{
    int a=9, b=5, c=8;
    if(!(a==9))
    {
        printf("Bear\n");
    }
    else
    {
        printf("Elephant\n");
    }
    printf("Fox");
    return 0;}
```

- A. Bear Fox
- B. Elephant Fox
- C. Fox
- D. Compiler error

30. What is the output of the following code:

```
void myshow(int *);
void main()
{
    int a=10;
    printf("%d ", a);
    myshow(&a);
    printf("%d", a);}
void myshow(int *k)
{
    *k=20;
```

- A. 10 20
- B. 20 20
- C. 10 10
- D. 10 20

31. An array Index starts with?

- A. -1
- B. 0
- C. 1
- D. 2

32. What is the output of C Program.?

```
int main()
{
int a[];
a[4] = {1,2,3,4};
printf("%d", a[0]);
}
```

- A. 1
- B. 2
- C. 4
- D. Compile error

33. What is the output of C Program?

```
int main()
{
char grade[] = {'A','B','C'};
printf("GRADE=%c, ", *grade);
printf("GRADE=%d", grade);
}
```

A) GRADE=some address of array, GRADE=A

B) GRADE=A, GRADE=some address of array

C) GRADE=A, GRADE=A

D) Compiler error

34. An entire array is always passed by \_\_\_\_ to a called function.

A) Call by value

B) Call by reference

C) Address relocation

D) Address restructure

35. How do you initialize an array in C?

A. int arr[3] = (1,2,3);

B. int arr(3) = {1,2,3};

C. int arr[3] = {1,2,3};

D. int arr(3) = (1,2,3);

36. Assuming int is of 4bytes, what is the size of int arr[15];?

A. 15

B. 19

C. 11

D. 60

37. Elements in an array are accessed \_\_\_\_\_

A. randomly

B. sequentially

C. exponentially

D. logarithmically

38. When does the ArrayIndexOutOfBoundsException occur?

A. Compile-time

B. Run-time

C. Not an error

D. Not an exception at all

39. What is the output of the following Java code?

```
public class array
```

```

{
    public static void main(String args[])
    {
        int []arr = {1,2,3,4,5};
        System.out.println(arr[5]);
    }
}

```

- A. 4
- B. 5
- C. ArrayIndexOutOfBoundsException
- D. InavlidInputException

40. What will be the output of the program ?

```

int main()
{
enum days {MON=-1, TUE, WED=6, THU, FRI, SAT};
printf("%d, %d, %d, %d, %d, %d\n", MON, TUE, WED, THU, FRI, SAT);
return 0;
}

```

- A. -1, 0, 1, 2, 3, 4
- B. -1, 2, 6, 3, 4,5
- C. -1, 0, 6, 2, 3,4
- D. -1, 0, 6, 7, 8, 9

41. What will be the output of the program ?

```

int main()
{
enum status {pass, fail, absent};
enum status stud1, stud2, stud3;
stud1 = pass;
stud2 = absent;

```



```
stud3 = fail;
printf("%d %d %d\n", stud1, stud2, stud3);
return 0;
}
```

- A. 0, 1, 2
- B. 1, 2, 3
- C. 0, 2, 1
- D. 1, 3, 2

42. What will be the output of the program in Turbo C (under DOS)?

```
int main()
{
struct emp
{
char *n;
int age;
};
struct emp e1 = {"Dravid", 23};
struct emp e2 = e1;
strupr(e2.n);
printf("%s\n", e1.n);
return 0;
}
```

- A. Error: Invalid structure assignment
- B. DRAVID
- C. Dravid
- D. No output

43. What will be the output of the program in 16-bit platform (under DOS)?

```
int main()
{
```

```

struct node
{
int data;
struct node *link;
};
struct node *p, *q;
p = (struct node *) malloc(sizeof(struct node));
q = (struct node *) malloc(sizeof(struct node));
printf("%d, %d\n", sizeof(p), sizeof(q));
return 0;
}

```

- A. 2, 2
- B. 8, 8
- C. 5, 5
- D. 4, 4

44. What will be the output of the program ?

```

int main()
{
struct byte
{
int one:1;
};
struct byte var = {1};
printf("%d\n", var.one);
return 0;
}

```

- A. 1
- B. -1
- C. 0

D. Error

45. Which of the following statements correct about the below code?

```
maruti.engine.bolts=25;
```

- A. Structure bolts is nested within structure engine.
- B. Structure engine is nested within structure maruti
- C. Structure maruti is nested within structure engine
- D. Structure maruti is nested within structure bolts.

46. Number of bytes in memory taken by the below structure is?

```
Struct test
```

```
{  
int k;  
char c;  
};
```

- A. Multiple of integer size
- B. integer size+character size
- C. Depends on the platform
- D. Multiple of word size

47. Size of a union is determined by size of the

- A. First member in the union
- B. Last member in the union
- C. Biggest member in the union
- D. Sum of the sizes of all members

48. What is the output of this C code?

(Assuming size of int be 4)

```
struct temp  
{  
int a;  
int b;  
int c;  
} p[] = {0};
```

```
main()
```

```
{ printf("%d", sizeof(p));
```

```
}
```

A. 4

B. 12

C. 16

D. Can't be estimated due to ambiguous initialization of array

49. The declaration of structure is also called as?

A. structure creator

B. structure signifier

C. structure specifier

D. structure define

50.. What is the output of C Program.? int main() { int a[] = {1,2,3,4}; int b[4] = {5,6,7,8}; printf("%d,%d", a[0], b[0]); }

A) 1,5

B) 2,6

C) 0 0

D) Compiler error

# Sample Question Bank

## Regular Examination

### BScIT SEM-I

#### Subject: OPERATING SYSTEM

Q1.A \_\_\_\_\_ is a program in execution.

- a. Process
- b. Thread
- c. Application
- d. Software

Q2.User Threads

- a. are supported above the kernel and are managed without the kernel support
- b. are supported below the kernel and are managed without the kernel support
- c. are supported above the kernel and are managed with the kernel support
- d. are supported below the kernel and are managed with the kernel support

Q.3 When a thread needs to wait for an event it will

- a. Block
- b. Execute
- c. Terminate
- d. Update

Q.4 In a pure Kernel Level Thread facility all of work of thread management is done by the

- a. Application

- b. Program
- c. Kernel
- d. Threads

Q.5 In many to one multithreading model many user level threads are attached to

- a. one register
- b. operating system
- c. one kernel thread
- d. other threads

Q.6 The kernel dispatcher keeps track of all ready

- a. Systems
- b. Registers
- c. Threads
- d. Buffers

Q.7 Event for which a thread block occurs the thread is moved to the ready

- a. Buffer
- b. Memory
- c. Registers
- d. Queue

Q.8 Message passing system allows processes to \_\_\_\_\_

- a. communicate with one another without resorting to shared data

- b. communicate with one another by resorting to shared data
- c. share data
- d. name the recipient or sender of the message

Q.9 Which of the following two operations are provided by the IPC facility?

- a. write & delete message
- b. delete & receive message
- c. send & delete message
- d. receive & send message

Q.10 What is SJF algorithm?

- a. first executes the job that came in last in the queue
- b. first executes the job that came in first in the queue
- c. first executes the job that needs minimal processor
- d. first executes the job that has maximum processor needs

Q. 11 The process \_\_\_\_\_ is the set of logical addresses that a process references in its code.

- a. Zone
- b. Area
- c. Mapping
- d. Address Space

Q. 12 Main Memory refers to a \_\_\_\_\_ memory that is the internal memory to the computer

- a. virtual
- b. physical
- c. short
- d. flash

Q.13 occurs in a dynamic memory allocation system when most of the free blocks are too sm

- a. Fragmentation
- b. Detection
- c. Looping
- d. Swapping

Q.14 A \_\_\_\_\_ is the data structure used by a virtual memory system

- a. Page Table
- b. Track
- c. Sector
- d. Partition

Q. 15 A Page Table is to store the mapping between \_\_\_\_\_ address and physical addresses.

- a. main
- b. external
- c. internal
- d. virtual

Q.16 Segmentation allows breaking of the virtual address space of a single process into

\_\_\_\_\_



- a. pages
- b. segments
- c. partition
- d. block

Q.17 \_\_\_\_\_ is a unique tag, usually a number identifies the file within the file system.

- a. File identifier
- b. File name
- c. File type
- d. File space

Q.18 What is the mounting of file system?

- a. creating a file system
- b. deleting a file system
- c. attaching portion of the file system into a directory structure
- d. removing the portion of the file system into a directory structure

Q.19 Mapping of file is managed by \_\_\_\_\_

- a. file metadata
- b. virtual memory
- c. page table
- d. file system

Q.20 Mapping of network file system protocol to local file system is done by \_\_\_\_\_

- a. network file system
- b. local file system
- c. volume manager
- d. remote mirror

Q 21. \_\_\_\_ are used widely in computer architecture and vary in their signaling methods, speed, throughput, and connection methods

- a. bus
- b. card
- c. interface
- d. connector

Q 22. Connects physical device to system bus like Minicomputers, PCs, etc

- a. wired
- b. driver
- c. device controller
- d. device connection

Q 23. A \_\_\_\_ module controls exchange of data between I/O module and main memory

- a. DMA
- b. RMA
- c. DDA
- d. RAM

Q 24. In polling\_\_\_\_\_ cycle is used wait for I/O from device

- a. WAIT-BUSY
- b. BUSY-WAIT
- c. STOP-WAIT
- d. WAIT-STOP

Q 25. The processor issues an I/O command and continues to execute in which of the following

- a. programmed i/o polling
- b. interrupt-driven i/o
- c. character-driven i/o
- d. direct memory access

Q 26. The number of processes and the number and kind of resources possessed and requested are unimportant ,This result holds for any kind of resource, including both hardware and software. This kind of deadlock is called \_\_\_\_\_

- a. memory deadlock
- b. hardware deadlock
- c. resource deadlock
- d. exclusive deadlock

Q 27. If no cycles exist, the system is \_\_\_\_\_

- a. deadlocked
- b. not deadlocked
- c. waiting

d. locked

Q 28. Deadlocks can occur when processes have been granted exclusive access to.

- a. resources
- b. data
- c. memory
- d. component

Q 29. \_\_\_\_\_ resource is one that can be taken away from the process owning it with no ill effects

- a. preemptable
- b. non preemptable
- c. preserve
- d. reserve

Q 30. Potential deadlocks that involve preemptable resources can usually be resolved by \_\_\_\_\_

- a. allocating resources
- b. deallocating resources
- c. reallocating resources
- d. locking resources

Q 31. Virtualization manager, program that allows multiple operating systems to share a single hardware host also refer as

- a. hypermachine
- b. hypervisor
- c. hyperenvironment
- d. hyperos

Q 32. Modern operating systems nearly all support virtual memory, which is basically refer as

- a. mapping of memory
- b. mapping of pages

- c. mapping of disk
- d. mapping of cache

Q 33. \_\_\_\_\_ is set in motion by having the operating system set a control register in the CPU that points to the top-level page table

- a. paging
- b. caching
- c. mapping
- d. virtualizing

Q 34. \_\_\_\_\_ is software assisted virtualization technique that uses specialized APIs to link virtual machines with the hypervisor to optimize their performance

- a. virtualization
- b. paravirtualization
- c. swapvirtualization
- d. distributing system

Q 35. The customers get a complete package that actually works, completely independent of which operating system they are running and which other software, packages, and libraries they have installed. These "shrink-wrapped" virtual machines are often called

- a. virtual disk
- b. virtual machine
- c. virtual appliances
- d. virtual device

Q 36. The Microkernel Type 1 Hypervisor, hosts its drivers on the \_\_\_\_\_

- a. base partition
- b. virtual partition
- c. parent partition
- d. child partition

Q 37. All modern x86 CPUs include a \_\_\_\_\_ and a \_\_\_\_\_ to optimize virtual memory performance

- a. MUM, TBL
- b. MMU, TLB
- c. MEM, TLB
- d. MMU, TBL

Q.38 \_\_\_\_\_ handles virtual-to-physical translations as defined by the OS

- a. memory management unit
- b. translation lookaside buffer
- c. page management
- d. paging

Q.39 Multicore virtualization method to allow hardware designers to get an abstraction of the \_\_\_\_\_ details of the processor cores

- a. high-level
- b. low-level
- c. neutral
- d. no access

Q.40 \_\_\_\_\_ use a physical hierarchy of two or more cache levels that statically determine the cache allocation and mapping

- a. chip multiprocessor
- b. chip singleprocessor
- c. chip physical memory
- d. chip logical memory

Q 41.Applications interact with the operating system through calls to libraries provided by it, which together compose the Android\_\_\_\_\_.

- a. Library
- b. Collection
- c. Framework
- d. Package

Q 42.The\_\_\_\_\_manager rides herd on power usage throughout the system.

- a. Power
- b. Electric
- c. Battery
- d. Cell

Q 43.\_\_\_\_\_OS specifically designed for smartphones and tablet computers

- a. Android
- b. Raspberry pi
- c. Ubuntu
- d. Fedora

Q 44.DVM stands for

- a. Java VM

- b. Dalvik VM
- c. Jam VM
- d. Hotspot

Q 45. There are \_\_\_\_\_ layers in Binder IPC Architecture in android

- a. 2
- b. 4
- c. 6
- d. 3

Q 46. Android Interface Definition Language is a \_\_\_\_\_ tool

- a. Interpreter
- b. GUI Interface
- c. Interface compiler
- d. Programming language

Q 47. UID zero represent \_\_\_\_\_ user in android

- a. root
- b. group
- c. guest
- d. anonymous

Q 48. In Linux OS the command line interface is called as \_\_\_\_\_



- a. cmd
- b. shell
- c. prompt
- d. terminal

Q 49. The heart of Linux implementation of threads is a new system call \_\_\_\_\_ which is not present in any other version of UNIX

- a. create()
- b. fork()
- c. clone()
- d. exec()

Q 50. \_\_\_\_\_ command search a file for some pattern

- a. cat
- b. grep
- c. cp
- d. cut

## FYIT SEM 1 – SAMPLE QUESTIONS - COMMUNICATION SKILLS – 50 MQS

1. Communication is a non-stop\_\_\_\_\_.
  - a. paper
  - b. process
  - c. programme
  - d. plan
2. Communication is a part of\_\_\_\_\_ skills.
  - a. soft
  - b. hard
  - c. rough
  - d. short
3. The\_\_\_\_\_is the person who transmits the message
  - a. receiver
  - b. driver
  - c. sender
  - d. cleaner
4. \_\_\_\_\_is the person who notices and decodes and attaches some meaning to a message
  - a. receiver
  - b. driver
  - c. sender
  - d. cleaner
5. Message is any signal that triggers the response of a \_\_\_\_\_
  - a. receiver
  - b. driver
  - c. sender
  - d. cleaner
6. The response to a sender's message is called \_\_\_\_\_
  - a. food bank
  - b. feedback
  - c. feeding
  - d. fooding
7. \_\_\_\_\_context refers to the relationship between the sender and the receiver
  - a. social
  - b. physical
  - c. cultural
  - d. chronological
8. \_\_\_\_\_context refers to the similarity of backgrounds between the sender and the receiver.
  - a. chronological
  - b. social
  - c. physical
  - d. cultural
9. \_\_\_\_\_refers to all these factors that disrupt the communication.
  - a. nonsense
  - b. noise
  - c. nowhere
  - d. nobody
10. Environmental barriers are the same as\_\_\_\_\_noise.

- a. physiological
  - b. psychological
  - c. physical
  - d. sociological
11. Our dress code is an example of \_\_\_\_\_ communication.
- a. verbal
  - b. nonverbal
  - c. written
  - d. spoken
12. Communication strengthens \_\_\_\_\_ & \_\_\_\_\_ relationship is an organization.
- a. employer-father
  - b. employer-employer
  - c. mother-employer
  - d. mother-child
13. \_\_\_\_\_ communication includes tone of voice body language, facial expressions etc.
- a. non verbal
  - b. verbal
  - c. letter
  - d. noise
14. When there is similarity of background between the sender and the receives such as age, language nationality, religion, gender then this is called \_\_\_\_\_ context.
- a. social
  - b. cultural
  - c. physical
  - d. dynamic
15. Letter, e-mail telephone are examples of \_\_\_\_\_
- a. message
  - b. feedback
  - c. channel
  - d. encoding
16. A shorter report is considered to be as
- a. 1-5 pages
  - b. 3-5 pages
  - c. 4-5 pages
  - d. 2 pages
17. A list of illustration, included, figures and tables, placed on Abstract
- a. Vision
  - b. Title Page
  - c. Table Content
  - d. Bottom Line
18. Format written in formal and oral communication, termed as
- a. Manuscript Speech
  - b. Commencement Speech
  - c. Memorized Speech
  - d. Verbal Language Processing
19. Which of these is usually written in a form of a memorandum?
- a. Informal reports
  - b. Formal reports

- c. Professional reports
  - d. Business reports
20. Which of these is not a formal report?
- a. Informational
  - b. Informal
  - c. Interpretative
  - d. Routine
21. Into which of these types are formal reports not classified?
- a. Informational
  - b. Interpretative
  - c. Oral
  - d. Routine
22. Which of these reports provide information without any evaluation?
- a. Informational
  - b. Interpretative
  - c. Routine
  - d. Progress
23. Interpretative reports are also known as \_\_\_\_\_
- a. recommendation reports
  - b. routine reports
  - c. progress reports
  - d. informal reports
24. Which of these is not mentioned in a resume?
- a. Culture
  - b. Age
  - c. Nationality
  - d. Experience
25. The ..... of a business letter is called layout.
- a. body
  - b. content
  - c. pattern
  - d. conclusion
26. Effective professional correspondence uses an appropriate style, clear and concise language, and.....
- a. the passive voice
  - b. open punctuation
  - c. the active voice
  - d. mixed punctuation
27. How many references are usually given in a resume?
- a. Two
  - b. Three
  - c. Four
  - d. Five
28. Resume is a \_\_\_\_\_ word.
- a. French
  - b. German
  - c. Indian
  - d. American
29. Curriculum vitae is a \_\_\_\_\_ word.
- a. French

- b. German
  - c. Indian
  - d. Latin
30. \_\_\_\_\_ gives input into right strategic decision making
- a. Public relation officer
  - b. Corporate communicator
  - c. Sales manager
  - d. Marketing manager
31. In current times, there is greater demand for \_\_\_\_\_
- a. Policies of variation
  - b. Policies of consistency
  - c. Policies of heterogeneity
  - d. Policies of discrepancy
32. \_\_\_\_\_ is a management framework to guide and coordinate marketing communication and public relations
- a. Corporate strategy
  - b. Corporate communication
  - c. Corporate marketing
  - d. Corporate relations
33. Despite consolidation of various communication disciplines, some units like \_\_\_\_\_ are seen as a separate functional area
- a. Media relations
  - b. Corporate responsibility
  - c. Finance
  - d. Crisis management
34. Crisis management is the work of \_\_\_\_\_ professionals
- a. Public Relations
  - b. IT
  - c. FMCG
  - d. Marketing
35. Public Relation professionals often need to \_\_\_\_\_
- a. Lie
  - b. Multitask
  - c. Sell
  - d. Hire
36. \_\_\_\_\_ is different from direct advertising and is used by many brands that sell alcohol
- a. Step advertising
  - b. Surrogate advertising
  - c. Adopted advertising
  - d. Foster advertising
37. \_\_\_\_\_ is an exclusive right granted by a sovereign state for an invention.
- a. Patent
  - b. Copyright
  - c. Surrogate
  - d. Creative right
38. \_\_\_\_\_ is an intellectual property right created by a work of art
- a. Patent
  - b. Copyright
  - c. Surrogate

- d. Creative right
39. Which one of the following is often the first step of planning the presentation
- a. Brainstorming ideas and writing them down
  - b. Make sense of the audience
  - c. Prepare PPT
  - d. Dress up well
40. The basic concept behind \_\_\_\_\_ is to capture ideas as quickly as possible.
- a. Writing down ideas
  - b. Brainstorming
  - c. Judgement of topic
  - d. Capture the ideas
41. In planning of presentation importance of brainstorming is \_\_\_\_ (Choose the correct option)
- a. Think critically
  - b. delivering the presentation
  - c. Brainwash of negativity
  - d. Solving problems and coming up with new ideas
42. To whom should a presentation be aimed?
- a. The highest authority in the room, regardless of where they are
  - b. The entire audience
  - c. The people in the closest rows
  - d. Your best friend in the room
43. Why should you keep text to a minimum on slides?
- a. So the focus is on you as the speaker
  - b. To help make your presentation longer
  - c. So the pictures are easier to see
  - d. To make sure the audience can read everything you have to tell them
44. Your presentation should consist of title slide, \_\_\_\_\_, body, and \_\_\_\_\_.
- a. objects and summary
  - b. opinions and paragraphs
  - c. objectives and summary
  - d. options and pages
45. Which one of the following is not the brainstorming rule
- a. Defer judgment
  - b. one conversation at a time
  - c. Be visual
  - d. Concentrate on Body language
46. Brainstorming can be a great \_\_\_\_\_ where you have shared discussions and also for individual ideation
- a. Team building
  - b. Conflict resolution
  - c. presentation
  - d. Ethics
47. Which one of the following term is irrelevant to brainstorming
- a. problem solving
  - b. Project Management
  - c. Improves
  - d. Audio visual equipment's
48. Which of the following statements about brainstorming is NOT correct?
- a. Brainstorming is an open game without rules or guidelines.

- b. Brainstorming is often used for creative problem solving.
  - c. All participants in brainstorming should be given a chance to contribute to the process.
  - d. No criticism is allowed in brainstorming.
49. In the beginning of the brainstorming session preparing a chart will help to
- a. Give summary of the presentation
  - b. Heading and sub sections of the content
  - c. Chart is useless
  - d. shows references
50. Which is the NOT the role of facilitator in brainstorming.
- a. Keep the session on track
  - b. Record all the information
  - c. Document the information
  - d. Observe the presentation

# Sample Question Bank

## BScIT

### SEM-I

## DISCRETE MATHEMATICS

- 1) The set O of odd positive integers less than 10 can be expressed by \_\_\_\_\_
  - a) {1, 2, 3}
  - b) {1, 3, 5, 7, 9}
  - c) {1, 2, 5, 9}
  - d) {1, 5, 7, 9, 11}
  
- 2) Power set of empty set has exactly \_\_\_\_\_ subset.
  - a) One
  - b) Zero
  - c) Two
  - d) Three
  
- 3) Express  $\{x: x= n/ (n+1), n \text{ is a natural number less than } 7\}$  in roster form.
  - a)  $\{1/2, 2/3, 4/5, 6/7\}$
  - b)  $\{1/2, 2/3, 3/4, 4/5, 5/6, 6/7, 7/8\}$
  - c)  $\{1/2, 2/3, 3/4, 4/5, 5/6, 6/7\}$
  - d) Infinite set
  
- 4) Number of power set of  $\{a, b\}$ , where a and b are distinct elements.
  - a) 3
  - b) 4
  - c) 2
  - d) 5
  
- 5) The set difference of the set A with null set is \_\_\_\_\_
  - a) A
  - b) null
  - c) U
  - d) B
  
- 6) If  $n(A)=20$  and  $n(B)=30$  and  $n(A \cup B) = 40$  then  $n(A \cap B)$  is?
  - a) 20
  - b) 30
  - c) 40
  - d) 10



- 7) Let P: I am in Delhi.; Q: Delhi is clean.; then  $q \wedge p$  (q and p) is?  
 a) Delhi is clean and I am in Delhi  
 b) Delhi is not clean or I am in Delhi  
 c) I am in Delhi and Delhi is not clean  
 d) Delhi is clean but I am in Mumbai
- 8) Let P: This is a great website, Q: You should not come back here. Then 'This is a great website and you should come back here.' is best represented by?  
 a)  $\sim P \vee \sim Q$   
 b)  $P \wedge \sim Q$   
 c)  $P \vee Q$   
 d)  $P \wedge Q$
- 9) What is the converse of the conditional statement "If it ices today, I will play ice hockey tomorrow."  
 a) "I will play ice hockey tomorrow only if it ices today."  
 b) "If I do not play ice hockey tomorrow, then it will not have iced today."  
 c) "If it does not ice today, then I will not play ice hockey tomorrow."  
 d) "I will not play ice hockey tomorrow only if it ices today."
- 10) What are the inverse of the conditional statement "If you make your notes, it will be a convenient in exams."  
 a) "If you make notes, then it will be a convenient in exams."  
 b) "If you do not make notes, then it will not be a convenient in exams."  
 c) "If it will not be a convenient in exams, then you did not make your notes."  
 d) "If it will be a convenient in exams, then you make your notes"
- 11) Let P (x) denote the statement " $x > 7$ ." Which of these have truth value true?  
 a) P (0)  
 b) P (4)  
 c) P (6)  
 d) P (9)
- 12) "The product of two negative real numbers is not negative." Is given by?  
 a)  $\exists x \forall y ((x < 0) \wedge (y < 0) \rightarrow (xy > 0))$   
 b)  $\exists x \exists y ((x < 0) \wedge (y < 0) \wedge (xy > 0))$   
 c)  $\forall x \exists y ((x < 0) \wedge (y < 0) \wedge (xy > 0))$   
 d)  $\forall x \forall y ((x < 0) \wedge (y < 0) \rightarrow (xy > 0))$
- 13) The greatest common divisor of 12 and 18 is?  
 a) 2  
 b) 3  
 c) 4  
 d) 6
- 14) The quotient when 19 is divided by 6 is?  
 a) 1  
 b) 2  
 c) 3  
 d) 0
- 15) A floor function map a real number to \_\_\_\_\_  
 a) smallest previous integer  
 b) greatest previous integer

- c) smallest following integer  
d) greatest following integer
- 16) Floor(2.4) + Ceil(2.9) is equal to \_\_\_\_\_  
a) 4  
b) 6  
c) 5  
d) 10
- 17) Let  $Q(n)$  be the predicate "n is a factor of 8." What is the truth set of  $Q(n)$  if the domain of n is the set of all positive integers?  
a) {2, 4}  
b) {2, 4, 8}  
c) {1, 2, 4, 8}  
d) {-8, -4, -2, -1, 1, 2, 4, 8}
- 18) Which of the following is false?  
a) The product of any two odd integers is odd.  
b) The difference of any two odd integers is odd.  
c) The difference of any two even integers is even.  
d) The product of any two even integers is even.
- 19) How many quantifiers are there in mathematical logic?  
a) 2  
b) 3  
c) 4  
d) 5
- 20) Which of the following is not the valid argument forms?  
a) Modus Ponens  
b) Modus Tollens  
c) Converse Error  
d) Transitivity
- 21) In the principle of mathematical induction, which of the following steps is mandatory?  
a) induction hypothesis  
b) inductive reference  
c) induction set assumption  
d) minimal set representation
- 22) For every natural number k, which of the following is true?  
a)  $(mn)^k = m^k n^k$   
b)  $m \cdot k = n + 1$   
c)  $(m+n)^k = k + 1$   
d)  $m^k n = mn^k$
- 23) Which of the following function  $f: Z \times Z \rightarrow Z$  is not onto?  
a)  $f(a, b) = a + b$   
b)  $f(a, b) = a$   
c)  $f(a, b) = |b|$   
d)  $f(a, b) = a - b$
- 24) Let f and g be the function from the set of integers to itself, defined by  $f(x) = 2x + 1$  and  $g(x) = 3x + 4$ . Then the composition of f and g is \_\_\_\_\_  
a)  $6x + 9$   
b)  $6x + 7$

- c)  $6x + 6$   
d)  $6x + 8$
- 25) For the sequence  $a_n = 6 \cdot (1/3)^n$ ,  $a_4$  is \_\_\_\_\_  
a)  $2/25$   
b)  $2/27$   
c)  $2/19$   
d)  $2/13$
- 26) What is the base case for the inequality  $7^n > n^3$ , where  $n = 3$ ?  
a)  $652 > 189$   
b)  $42 < 132$   
c)  $343 > 27$   
d)  $42 \leq 431$
- 27) A formula developed in which every previous term is used to define the next term, is called  
a) explicit  
b) induction  
c) recursive  
d) countable
- 28) For  $A = \{1,2,3,4\}$  and  $B = \{1,2,3,4\}$  the function,  $f = \{(1,1), (2,3), (3,4), (4,2)\}$  is  
a) One- one  
b) Onto  
c) Neither one-one nor onto  
d) Both one –one and onto
- 29) The sum of the series  $1 + (1/3) + (1/3^2) + (1/3^3) + \dots$   
a) 2  
b)  $3/2$   
c)  $2/3$   
d)  $4/3$
- 30) The function  $f : \mathbb{R} \rightarrow \mathbb{R}$  defined by  $f(x) = 3 - 4x$  is  
a) Onto  
b) Not onto  
c) Not one-one  
d) Not bijective
- 31)  
A relation on a set A is a relation from \_\_\_ to \_\_\_\_\_.  
a) A; B  
b) A; A  
c) B; B  
d) B; A
- 32) The congruence modulo 2 relation E is defined from Z to Z as follows:  
For all integers m and n,  $mEn \Leftrightarrow m - n$  is even.  
Which of the following is true?  
a)  $5E2$   
b)  $3E0$   
c)  $-1E7$   
d)  $4E1$
- 33)  
To show that a relation R on an infinite set A is symmetric, you suppose that \_\_\_\_\_ and you show that \_\_\_\_\_.  
a) x and y are any elements of A such that  $x R y$ ;  $y R x$

- b)  $x$  is any element of  $A$ ;  $x R x$
- c)  $x, y,$  and  $z$  are any elements of  $A$  such that  $xRy$  and  $y R z$ ;  $x R z$
- d) for all  $x$  and  $y$  in  $A$ , if  $xRy$  then  $yRx$

34) To show that a relation  $R$  on an infinite set  $A$  is transitive, you suppose that \_\_\_\_\_ and you show that \_\_\_\_\_.

- a)  $x, y,$  and  $z$  are any elements of  $A$  such that  $xRy$  and  $y R z$ ;  $x R z$
- b)  $x$  and  $y$  are any elements of  $A$  such that  $x R y$ ;  $y R x$
- c)  $x$  is any element of  $A$ ;  $x R x$
- d) for all  $x, y,$  and  $z$  in  $A$ , if  $xRy$  and  $yRz$  then  $xRz$

35) Determine the partitions of the set  $\{3, 4, 5, 6, 7\}$  from the following subsets.

- a)  $\{3,5\}, \{3,6,7\}, \{4,5,6\}$
- b)  $\{3\}, \{4,6\}, \{5\}, \{7\}$
- c)  $\{3,4,6\}, \{7\}$
- d)  $\{5,6\}, \{5,7\}$

36) Determine the set of all integers  $a$  such that  $a \equiv 3 \pmod{7}$  such that  $-21 \leq x \leq 21$ .

- a)  $\{-21, -18, -11, -4, 3, 10, 16\}$
- b)  $\{-21, -18, -11, -4, 3, 10, 17, 24\}$
- c)  $\{-24, -19, -15, 5, 0, 6, 10\}$
- d)  $\{-23, -17, -11, 0, 2, 8, 16\}$

37) A trail in a graph can be described as \_\_\_\_\_

- a) a walk without repeated edges
- b) a cycle with repeated edges
- c) a walk with repeated edges
- d) a line graph with one or more vertices

38) An  $n$ -vertex graph has \_\_\_\_\_ edges.

- a)  $n^2$
- b)  $n-1$
- c)  $n*n$
- d)  $n*(n+1)/2$

39) Degree of a graph with 12 vertices is \_\_\_\_\_

- a) 25
- b) 56
- c) 24
- d) 212

40) In a finite graph the number of vertices of odd degree is always \_\_\_\_

- a) even
- b) odd
- c) even or odd
- d) infinite

41)

If  $A$  and  $\bar{A}$  are complementary events, then  $P(\bar{A}) = \dots\dots\dots$

- a)  $1+P(A)$
- b)  $1-P(A)$

- c)  $P(A)$
- d)  $-P(A)$

42) If A and B are independent events then, conditional probability  $P(A/B) = \dots\dots\dots$

- a)  $P(A)-P(B)$
- b)  $P(A)$
- c)  $P(B)$
- d)  $P(A)+P(B)$

43) A statistical experiment means .....

- a) Action which has reaction
- b) Action which has a certain outcome
- c) Action which has no outcome
- d) Action which has uncertain outcome

44) Two events are said to be mutually exclusive when .....

- a) Both of them occur together
- b) None of them occur
- c) Occurrence is uncertain
- d) Only one them occurs

45)

A bag contains 3 copper coins and 7 silver coins. If a coin is drawn, then the chance to get a silver coin is .....

- a)  $7/3$
- b)  $3/7$
- c)  $7/10$
- d)  $3/10$

46) A variable x capable of taking values  $x_1, x_2, x_3, \dots, x_n$  with respective probabilities  $p_1, p_2, p_3, \dots, p_n$  then it is called .....

- a) Continuous random
- b) Continuous
- c) Discrete random variable
- d) Discrete

47) There are 12 points in a plane, no three of which are collinear. Find a) How many straight lines can be drawn? b) How many triangles can be drawn?

- a) 12, 3
- b) 12, 2
- c) 66, 220
- d) 132, 220

48) At an election there are 5 candidates and 3 members are to be elected and a voter is entitled to vote for any number to be elected but not more than members to be elected. In how many ways a voter can cast his vote?

- a) 15
- b) 20
- c) 25
- d) 30

49)

Suppose  $P(A|B) = 1/2$  and  $P(A \cap B) = 1/6$ . What is  $P(B)$ ?

- a) 3
- b)  $\frac{1}{6}$
- c)  $\frac{1}{2}$
- d)  $\frac{1}{3}$

50) A drawer contains ten black and ten white socks. You reach in and pull some out without looking at

them. What is the least number of socks you must pull out to be sure to get a matched pair?

- a) 1
- b) 2
- c) 3
- d) 4

# Sample Question Bank

## Regular Examination

### BScIT SEM-I

#### Subject: Digital Electronics

1. The number 23 is Hexadecimal number. Convert it in binary.
  - A. 111111
  - B. 101011
  - C. 100011
  - D. 100010
  
2. The number 10101010010110 is binary. Convert it in hexadecimal.
  - A. 2A96
  - B. 10101010010110
  - C. ABA2
  - D. AA52
  
3. The number 134 is octal number. Convert it in Hexadecimal.
  - A. 43
  - B. 5C
  - C. C5
  - D. 512
  
4. The number ABCD is Hexadecimal number. Convert it in binary.
  - A. 1010001111001101
  - B. 1010101111001101
  - C. 1011111011110001
  - D. 1111101111001101
  
5. The number 10101001 is binary. Convert it to gray code.
  - A. 11001101
  - B. 11111100
  - C. 11111101
  - D. 10101011
  
6. The hamming code for 1001 using even parity is \_\_\_\_\_.
  - A. 0011111
  - B. 0011001
  - C. 1101011
  - D. 1001100
  
7. Hamming code 1110001 has error on \_\_\_\_\_ position. Use odd parity.

- A. 1
- B. 3
- C. 2
- D. No error

8. ASCII is \_\_\_\_\_ bit code.

- A. 5
- B. 4
- C. 7
- D. 9

9. ASCII of character '1' is \_\_\_\_ \_.

- A. 48
- B. 51
- C. 49
- D. 50

10. ASCII of character 'a' is \_\_\_\_ \_.

- A. 97
- B. 65
- C. 48
- D. 49

11. AND gate has \_\_\_\_\_ inputs and 1 output.

- A.  $N \geq 1$
- B.  $N \geq 2$
- C.  $N \geq 3$
- D.  $N \geq 4$

12. In logic gates \_\_\_\_\_ alphabet is use to represent output.

- A. W
- B. X
- C. Y
- D. Z

13. The output of a two-input AND gate is high

- A. Only if both the inputs are high
- B. Only if both the inputs are low
- C. Only if one input is high and the other is low
- D. If at least one input is low

14. The output of two-input NOR gate is high

- A. Only if both the inputs are high
- B. Only if both the inputs are low
- C. Only if one input is high and the other is low
- D. If at least one input is high

15. Which of the following is applicable to AND gate?



- A.  $Y=A+B$
- B.  $Y=A-B$
- C.  $Y=A.B$
- D.  $Y=A/B$

16. Which of the following is not valid for AND gate?

- A.  $Y=AB$
- B.  $Y=A.B$
- C.  $Y=A \text{ AND } B$
- D.  $Y=A*B$

17. \_\_\_\_\_ is invert of AND gate.

- A. NOT
- B. OR
- C. NAND
- D. NOR

18. Which of the following is applicable to NOR gate?

- A.  $Y=\overline{\overline{A}B}$
- B.  $Y=\overline{A\overline{B}}$
- C.  $Y=\overline{A\overline{B}}$
- D.  $Y=\overline{\overline{A}B}$

19.  $A+0=$ \_\_\_\_\_.

- A. A
- B.  $A'(A \text{ bar})$
- C. 0
- D. 1

20.  $A.0=$ \_\_\_\_\_

- A. A
- B.  $A'(A \text{ bar})$
- C. 0
- D. 1

21. To design a binary to gray converter \_\_\_\_\_ gate is used.

- A. AND
- B. OR
- C. NOR
- D. XOR

22. To design a gray to binary converter \_\_\_\_\_ gate is used.

- A. AND
- B. OR
- C. NOR
- D. XOR

23. For converting binary to gray; binary bit added to next position\_\_\_\_\_ bit.
- A. Binary
  - B. Gray
  - C. X3
  - D. BCD
24. Half adder can perform addition of\_\_\_\_\_ bits.
- A. 1
  - B. 2
  - C. 3
  - D. 4
25. Half subtractor can perform subtraction of\_\_\_\_\_ bits.
- A. 1
  - B. 2
  - C. 3
  - D. 4
26. Full subtractor can perform subtraction of\_\_\_\_\_ bits.
- A. 1
  - B. 2
  - C. 3
  - D. 4
27. Using Full subtractor; if input A=1, B=0, and C=1 then difference = \_\_\_\_\_ and borrow=\_\_\_\_\_.(A is MSB)
- A. 0,0
  - B. 0,1
  - C. 1,0
  - D. 1,1
28. In active low circuit ON=\_\_\_\_\_, OFF=\_\_\_\_\_.
- A. 0,1
  - B. 1,0
  - C. Both are same.
  - D. There is no such circuit.
29. An 8 bit adder produces sum of\_\_\_\_\_ bits
- A. 2
  - B. 4
  - C. 8
  - D. 16
30. A 8 bit adder can perform addition of\_\_\_\_\_.

- A. 4 bits
- B. Two numbers each of 8 bits
- C. Two numbers each of 4 bits.
- D. 8 bits

31. In multiplexer input to output routine is controlled by \_\_\_\_\_ lines.

- A. Control
- B. Data
- C. Select
- D. Current

32. Multiplexer is called \_\_\_\_\_.

- A. Data selector
- B. Data distributor
- C. Data creator
- D. Data destroyer

33. In there are 4 inputs in multiplexer then \_\_\_\_\_ OR gate/s will be used to design it.

- A. 1
- B. 2
- C. 4
- D. 0

34. In there are 4 inputs in multiplexer then \_\_\_\_\_ AND gate/s will be used to design it.

- A. 1
- B. 2
- C. 4
- D. 0

35. In 4:1 multiplexer, \_\_\_\_\_ select line will be used.

- A. 1
- B. 2
- C. 3
- D. 4

36. In design table if both rows are circled then we put logic \_\_\_\_\_.

- A. 0
- B. 1
- C. A
- D. A'

37. In design table if no rows are circled then we put logic \_\_\_\_\_.

- A. 0
- B. 1
- C. A
- D. A'

38. In design table if only top row is circled then we put logic\_\_\_\_\_.

- A. 0
- B. 1
- C. A
- D. A'

39. In demultiplexer input to output routine is controlled by\_\_\_\_\_lines.

- A. Control
- B. Data
- C. Select
- D. Current

40. Demultiplexer is called\_\_\_\_\_.

- A. Data selector
- B. Data distributor
- C. Data creator
- D. Data destroyer

41. \_\_\_\_\_ is a type of counter.

- A. Asynchronous
- B. Digital
- C. Analog
- D. Register

42. \_\_\_\_\_ is a type of counter.

- A. Digital
- B. Synchronous
- C. Analog
- D. Register

43. In ripple counter last flip-flop becomes\_\_\_\_\_.

- A. LSB
- B. MSB
- C. Worst
- D. Best

44. To design modulo 10 counter\_\_\_\_\_flip-flop are used.

- A. 2
- B. 4

- C. 8
- D. 10

45. If states in counter are 3,4,5,6,7 then it is a/an \_\_\_\_\_ counter.

- A. Up
- B. Down
- C. Left
- D. Right

46. \_\_\_\_\_ counter have problem of glitch.

- A. Asynchronous
- B. Synchronous
- C. Register
- D. Automatic

47. \_\_\_\_\_ counter has less settling time.

- A. Asynchronous
- B. Synchronous
- C. Register
- D. Automatic

48. Synchronous counter is \_\_\_\_\_.

- A. Serial
- B. Parallel
- C. Horizontal
- D. Vertical

49. Asynchronous counter is \_\_\_\_\_.

- A. Serial
- B. Parallel
- C. Horizontal
- D. Vertical

50. \_\_\_\_\_ counter has speed limitation.

- A. Asynchronous
- B. Synchronous
- C. Register
- D. Automatic