1. To which of the following domain problems does the Knapsack problem belong

Points:0/1

- NP-Complete
- Sorting
- Linear solution
- **Optimization**

2. Integer i=0
while(+ (+i--)!= 0)
i- = i + 1;
end while
Print i

Points:1/1

- **0**
- error
- -1
- 1

3. Integer a,b,
set a=2, b=12
c=b<<a
print c

Points:1/1

- 16
- 6
- **48**
- 4

4. For implementing which of the following algorithms, a linked list is not suitable?

Points:1/1

- Radix sort
- Insertion sort
- Polynomial manipulation
- **Binary search**

5. Which of the following is the most appropriate data structure to print elements of a queue in reverse order?

Points:1/1

- Tree
- Linked - list
- None of the mentioned options
- **Stack**

6. Input n = 5
num = 1
while (num = 2 * n)
if(num % 2 == 1)
print num
num = num + 1
End while

Points:0/1

- 9
- No Output
- 1 3 5
- **1 3 5 7 9**

7. Which of the following linked lists will give 0(1) complexity, if we need to concatenate? Points:1/1

Singly linked list
Double linked list
Circular linked list

Choose the correct answer from the options given below.

- Only 2 and 3
- **Only 1 and 2**
- All 1, 2 and 3
- Only 3

8. integer a,b,c,d set n=456 , a=0, b=1 Points:1/1

```
while (n>0)
   d=n mod 10
   a=a+d
   b=b*d
   n=n/10
end while
 print a
 print b
```

- **15 120**
- None
- 64 120
- 12 24

9. Integer a = 10, b = 20 Points:1/1
b = (a + b)-(a = b)
Print a
Print b

- **20 10**
- 1010 10100
- 15 15
- 10 20

10. n=5 Points:0/1

```
 i = 0, s = 0
 Function Sample ( int n )
  while( n > 0 )
      r = n % l0
     p = 8 ^ i
     s = s + p * r
     i = i + 1
     n = n / 10
  End While
  Return s
End Function
```

- 187
- 27

- 120
- **13**

11. Integer a = 1, b = 0
b = ++a + ++a
Print a
Print b

Points:0/1

- 1 1
- Compiler Dependent
- **2 2**
- 1 0

12. Which of the following is the post fix expression for the given infix expression?
(a + b – c) * (d – e) / (f – g + h)

Points:0/1

- a b c - + d e – f g – h + * /
- a b c - + d e – f g – h + / *
- a b c - + d e f – g – h + / *
- **a b c - + d e – f g h - + / ***

13. Integer A[5][5],k,j;
for (k=0;k<5;++k)
for(j=0;j<5;j++)
A[k][j]=A[j][k]
end for
end for

Points:1/1

- None of the mentioned option
- Both A & C
- **It transposes the given matrix A**
- It makes the given matrix A, symmetric

14. Integer a,b,v,c
set a=7, b=12,v=70
while(v>5)
a= a-v
c=(a+b)mod 10
while(c>7)
b=b+c
end while
v=v/2
end while
print b,c

Points:0/1

- 16 82
- 14 -2
- 12 1
- **12 -1**

15. x = 4
y = ++x
z = x++
Print x
Print y
Print z

Points:0/1

- 4 5 5

- 6 5 5
- **4 5 4**
- 6 5 6

16. input n = 5
num = 1
while (num <= n)
if (num % 2 == 1)
print num
num = num + 1
End while

Points:1/1

- No output
- 9
- 1 3 5
- **1 3 5 7 9**

17. Which of the following algorithms can be used to calculate the shortest path between two nodes in a graph?
Prim's Algorithms
Kruskal's Algorithms

Choose the correct answer from the options given below

Points:0/1

- **Only 1 and 2**
- Only 2
- Neither 1 nor 2
- Only 1

18. Integer n
for (n = 3; n != 0; n--)
Print n
n = n-1
end for

Points:1/1

- 3
- 3 2 1
- **3 1**
- Infinite loop

19. For input a = 8 & b = 9.
Function(input a, input b)
If(a < b)
return function(b, a)
elseif(b != 0)
return (a + function(a,b-1))
else
return 0

Points:1/1

- 56
- 78
- **72**
- 68

20. Integer m,j,a[]
set a[]={2,3,5,7,1}
m=a[0]
for (j from 0 to 4)
if (m<a[j])

Points:0/1

```
        m=a[j]
    end if
end for
print m
```

- 2
- 5
- **7**
- 1

21. What will be the output of the following pseudo code? Points:0/4

```
1. Integer a, b, c
2. set a = 10, b = 3
3. c = a / b
4. b = a MOD c
5. print a, b and c
```

- 10 3 3
- 10 0 3
- **10 1 3**
- 0 0 0

22. Which of the following is/are the advantages of a chained hash table (external hashing) over the open addressing method? Points:1/1

- None of the mentioned
- **Efficiency use the space.**
- Deletion is easier
- Worst case time complexity of the search operation is less

23. Points:0/1

```
Integer n,b
Read n
for(each i from 1 to n)
    b= i MOD 9
    if(b EQUALS 0)
        print i
    End if
End for
```

- to print all number from 1 to n which is divisible by 3 and 9
- None of the above
- to print all number from 1 to n which is divisible by 3,6 and 9
- **to print all number from 1 to n which is divisible by 9 only**

24. Points:0/1

```
char str[20]
integer sameset str = "ABCDEFGH”
s=string length(str)
str[5]=NULL
s=strlen(str)
print s
```

- Garbage Value
- **6**
- 4
- 5

25. Input a[10]={1,2,3,4,5,6,7,8,9,10}
Print * a + 1 - * a + 3

- 4
- **44**
- 100
- error