

U.G. 4th Semester Examination - 2022**PHYSICS****[PROGRAM]****Course Code : BPHSSERT404****Course Title : Computational Physics Skills**

Full Marks : 50

Time : 2 Hours

The figures in the right-hand margin indicate marks.

Answer **all** the following questions by choosing the correct alternative out of four options: $2 \times 25 = 50$

1. An algorithm is
 - a) a list of variables
 - b) logarithm of the number of variables
 - c) a set of well-defined instructions to solve a particular problem
 - d) the most commonly called function in a program.
2. What is the role of the command 'pwd' in linux?
 - a) displays the current working location
 - b) displays all the files in the working directory
 - c) displays the current linux version
 - d) None of the above

3. What is the role of the Linux Command "cd"?
 - a) changes current working directory
 - b) used to insert a compact disc
 - c) displays all files in the current directory
 - d) All of the above
4. Latex is
 - a) a programming language
 - b) a document preparation system used for the communication and publication of scientific documents.
 - c) a command driven plotting program
 - d) All of the above
5. Which of the following is a package in Latex?
 - a) graphicx
 - b) amssymb
 - c) amsmath
 - d) All of the above
6. Which is correct syntax for Latex?
 - a) `\begin{}... \stop{}`
 - b) `\begin{}... \end{}`

- c) `\start{}... \end{}`
d) `\open{}... \end{}`
7. Correct syntax for inline formula
- a) `$f(x)=x^2$`
b) `{f(x)=x^2}`
c) `[f(x)=x^2]`
d) `(f(x)=x^2)`
8. Gnuplot is
- a) a command driven plotting program
b) a low level programming language
c) an alternate name for python
d) All of the above
9. Which of the following cannot be done in gnuplot?
- a) plotting data files
b) plotting too large floating point numbers
c) plotting trigonometric functions
d) All of the above
10. Who is the father of C language?
- a) Steve Jobs
b) James Gosling
c) Dennis Ritchie
d) Rasmus Lerdorf
11. Which of the following is invalid file in C programming?
- a) `math.h`
b) `mathio.h`
c) `string.h`
d) `stdio.h`
12. For a typical program, the input is taken using_____
- a) `scanf`
b) `printf`
c) `While`
d) All of the mentioned above
13. Find the output of the following program.
- ```
int main(){
int i=120;
printf("%d",i);
}
```
- a) 20  
b) 120.00  
c) 120  
d) None of the above

14. What is the output of the following code snippet?

```
int main() {
 int sum = 2+4 / 2+6*2;
 printf("%d", sum);
 return 0;
}
```

- a) 2
- b) 15
- c) 16
- d) 0

15. Which of the following functions is used to open a file in C?

- a) fopen
- b) fclose
- c) fseek
- d) fgets

16. Which of the following is not a correct variable type?

- a) float
- b) int
- c) double
- d) real

17. Find the output of the following program:

```
int main(){
 int i=5;
 i=i%2;
 printf("%d",i);
}
```

- a) 0
- b) 10
- c) 20
- d) 1

18. Operator % in C Language is called

- a) Percentage operator
- b) Quotient operator
- c) Modulus
- d) Division

19. Which of the following is an exit controlled loop?

- a) For loop
- b) do-while loop
- c) if loop
- d) None of the above

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

```
int main()
{
 int y = 10000;
 int y = 34;
 printf ("Hello World!%d\n",y);
 return 0;
}
```

- a) Compile time error
- b) Hello World! 34
- c) Hello World! 10000
- d) Hello World followed by a junk value

21. Which of the following is not a loop in C language?

- a) for
- b) while
- c) do-while
- d) None of the above

22. What role does the if-else statement play in C language?

- a) executes condition based operations
- b) commences the program

- c) used at the end of C program
- d) None of the above

23. What will be the output of the following C program?

```
#include<stdio.h>
int main ()
{
 int a=5, b=6, sum;
 sum = a+b;
 printf("%d", sum);
}
```

- a) 11
- b) 11.0
- c) Won't be compiled due to error
- d) None of the above

24. Which of the following is an incorrect C keyword?

- a) go to
- b) for
- c) if
- d) snap

25. How many keywords are there in C language?

a) 30

b) 31

c) 32

d) 35

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