



UNIVERSITY OF RUHUNA

Faculty of Engineering

End-Semester 1, Examination in Engineering (Repeat),
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Module No: EE1102 Module Name: Introduction to Programming
Part I

Instructions for candidates

- Write your index number on top of every page.
 - Question paper contains 50 multiple choice questions.
 - Each question carries 0.4 marks.
 - Answer all questions. Each question has only one answer.
 - Read the question and all answers before making the choice.
 - For each question, put an X mark on the letter: (a), (b), (c), or (d) which corresponds to the correct answer, by using a black or blue pen.
 - Time allowed is 1 hour and 30 minutes.
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- | | |
|---|--|
| 1. Founder of the C language is | (a) out.exe |
| (a) Richard Stallman | (b) xyz.out |
| (b) John von Neumann | (c) xyz.obj |
| (c) Linus Torvalds | (d) a.out |
| (d) Dennis Ritchie | |
| 2. The command <code>gcc -o obj.o myprog.c</code>
at the Linux prompt implies that | 4. A program with a compile error |
| (a) <code>myprog.c</code> may be the source file and
it uses <code>stdio.h</code> library functions. | (a) can not be executed. |
| (b) <code>myprog.c</code> may contain mathemati-
cal functions. | (b) can be linked with other library files |
| (c) <code>obj.o</code> is the result of the above
command. | (c) can be executed, but an error mes-
sage will be displayed |
| (d) <code>obj.o</code> is an already compiled li-
brary file. | (d) will produce wrong results during
execution |
| 3. The command <code>gcc xyz.c</code> will produce
the executable file | 5. Which of the given words is not a key-
word in C? |
| | (a) int |
| | (b) register |
| | (c) float |
| | (d) function |

6. Which of the symbols is used as the terminator of statements?
- (a) ;
 - (b) ' ,
 - (c) "
 - (d) \n
7. The code
`int x, y;
printf(" %d", x = 3);`
contains
- (a) a syntax error
 - (b) a run-time error
 - (c) no syntax errors
 - (d) error or not depends on y value
8. The program
`#include <stdio.h>
int main(void){ printf("/XYZ"); }.`
return 0;};
- (a) prints XYZ
 - (b) prints nothing
 - (c) has syntax errors
 - (d) creates run time *memory segment* fault
9. Which of the given statements makes the pointer `int *ptr`; points to the variable `int x` ;?
- (a) `ptr = &x;`
 - (b) `*ptr = x;`
 - (c) `*ptr !=x;`
 - (d) `ptr[x]=*x;`
10. If the pointer `int *ptr` points to `x`, then `x` can be assigned 3 by
- (a) `ptr =3;`
 - (b) `ptr=&x;`
 - (c) `*ptr = 3;`
 - (d) `ptr=3; x = &ptr;`
11. Which of the format specifiers is used to print the values of double type variable?
- (a) %lf
 - (b) %d
 - (c) %s
 - (d) %c
12. Which of the given operators is an unary operator?
- (a) -
 - (b) ++
 - (c) *
 - (d) +=
13. Which of the operators has lowest priority?
- (a) =
 - (b) ++
 - (c) %
 - (d) +
14. Type of a variable defines
- (a) the size of the memory required to hold data.
 - (b) possible operations on variables of considered type.
 - (c) the kind of data to be stored
 - (d) all given by above answers
15. The preprocessor directive
`#include <stdlib.h>`
defines a
- (a) variable
 - (b) symbolic constant
 - (c) library file
 - (d) class

16. Which of the following declarations of `x` best fits to store a name of a person?
- (a) `char x;`
 - (b) `char x[100];`
 - (c) `int *x;`
 - (d) `float x[499];`
17. C variable type that does not define any particular type is
- (a) `float`
 - (b) `int`
 - (c) `void`
 - (d) `char`
18. What is given in the following?
- ```
int fun[22];
```
- (a) Declaration of array `fun` with 22 elements
  - (b) Definition of the operator `[ ]`.
  - (c) Declaration of array `fun` with 21 elements
  - (d) Definition of 22 functions under the name `fun`
19. Which of the given characters is at the end of a C-String?
- (a) `'\n'`
  - (b) `'\r'`
  - (c) `'\t'`
  - (d) `'\0'`
20. What is the meaning of `x = y; ?`
- (a) Assign the value of `y` to the `x`
  - (b) `x` is equal to `y`.
  - (c) Is the `x` equal to `y`?
  - (d) Is `x` is not equal to `y`?
21. What is the meaning of `x == y; ?`
- (a) Value of `y` is assigned to the `x`.
  - (b) `x` is equal to `y`
  - (c) Is the `x` equal to `y`?
  - (d) Is `x` is not equal to `y`?
22. what is the meaning of `x != y; ?`
- (a) Value of `y` is assigned to the `x`.
  - (b) `x` is equal to `y`
  - (c) Is the `x` equal to `y`?
  - (d) Is `x` is not equal to `y`?
23. What does the operation `23%4` produce?
- (a) 3
  - (b) 2
  - (c) 1
  - (d) 0
24. The expression `25 != 24` evaluates to
- (a) 1
  - (b) 0
  - (c) 10
  - (d) 26
25. The expression `1232 == 123` evaluates to
- (a) 1
  - (b) 0
  - (c) 6
  - (d) 8
26. After execution of `x=2; ++x; ++x;` the value of `x` is
- (a) 2
  - (b) 3
  - (c) 4
  - (d) 5

27. After execution of  
`x=5; x += x;`  
the value of x is
- (a) 55
  - (b) 5
  - (c) 10
  - (d) 25
28. The expression `(x + y * 5) > 25` evaluates to 1 if
- (a) `x = 3` and `y = 4`
  - (b) `x = 0` and `y = 5`
  - (c) `x = 11` and `y = 3`
  - (d) `x = 14` and `y = 2`
29. The expression `(3 == 33 || 3 != 3)` evaluates to
- (a) 33
  - (b) 42
  - (c) 1
  - (d) 0
30. The expression `(10 -= 4 && 5 < 3)` evaluates to
- (a) 1
  - (b) 0
  - (c) -1
  - (d) Non of the above choices
31. `if(!x) printf("Yes");`  
This displays Yes only if x is
- (a) 0.
  - (b) greater than 0 or less than 0.
  - (c) is less than 0.
  - (d) greater than 0.
32. `if( x+10 > 10) printf("Yes");`  
This displays Yes if x is
- (a) greater than 10.
  - (b) less than 10.
  - (c) greater than or equal to 0.
  - (d) greater than 0.
33. `if( x-25 < 25) printf("Yes");`  
This displays Yes if x is
- (a) greater than 50.
  - (b) greater than 10.
  - (c) less than 40.
  - (d) less than 55.
34. `if( x > 100 && x <=205) printf("Yes");`  
`else printf("No");`  
This displays No if x is
- (a) 100
  - (b) 110
  - (c) 125
  - (d) 205
35. `if(x<=150 || x>175) printf("Yes");`  
`else printf("No");`  
This displays No if x is
- (a) 150
  - (b) 160
  - (c) 180
  - (d) 148
36. `if((x<10 || x>25) && (x<-10 || x>-25)) printf("Yes");`  
This displays Yes if x is
- (a) -15
  - (b) 0
  - (c) -30
  - (d) any of the above.
37. `(12==5 && 3!=3) || (4+5 || 3-4+1)`  
This expression evaluates to
- (a) -1
  - (b) 0
  - (c) 1
  - (d) non of the above values.

38. `for(i=0;i<610;++i) printf("X");`  
How many times the character X is displayed?  
(a) 69  
(b) 610  
(c) 161  
(d) 0
39. `for(i=0;i<=10; i += 2) printf("X");`  
How many times the character X is displayed?  
(a) 2  
(b) 3  
(c) 4  
(d) 5
40. `for(i=20; i<10; i -= 2) printf("X");`  
How many times the character X is displayed?  
(a) 0  
(b) 5  
(c) 4  
(d) 8
41. `i=0;while(i<5){ printf("%d",i);++i;}`  
This code prints  
(a) 0 1 2 3 4  
(b) 0 1 2 3 4 5  
(c) 1 2 3 4  
(d) 1 2 3 4 5
42. `i=0;while(i<4)++i;printf("%d",i);`  
The value of i displayed is  
(a) 0 1 2 3  
(b) 4  
(c) 3 2 1 0  
(d) Non of the above
43. `Sum=4;i=2;while(i<=5){Sum+=i;++i;}`  
This code sets Sum to
- (a) 17  
(b) 16  
(c) 15  
(d) 18
44. In switch statement  
(a) goto can be used to direct to another case.  
(b) default is not optional.  
(c) break prevents execution of next case.  
(d) continue makes execution of previous case.
45. `a=1;b=1; f=1;`  
`while(a<=14)`  
`{ f = a + b;`  
`b=a; a=f;`  
`printf(" %d ", f);`  
`}`  
Above code displays  
(a) 2 3 6 9 14 24  
(b) 2 3 3 11 15 23  
(c) 2 3 5 8 13 21  
(d) 2 3 6 10 22 71
46. `for(i=-5, j=11;i<34; i+=j,--j)`  
`{ printf(" %d ", j); }`  
Above code displays  
(a) 11 10 9 8 7  
(b) 11 9 7 5 3  
(c) 10 8 8 6 -5  
(d) 10 9 5 -3 2

```
47. i=1000;
while(i)
{ i-=2;
 printf("\n%d", i);
}
```

Above code displays

- (a) odd numbers.
- (b) even numbers.
- (c) fractional numbers.
- (d) prime numbers.

48. void tow(float \*x);  
is a function

- (a) definition
- (b) call
- (c) name
- (d) prototype

49. According to  
double xy(int x, float y);  
the return value is

- (a) of type float.
- (b) of type int.
- (c) of type doublet.
- (d) of non of the types given above.

50. If y=8, after calling the function as  
z=add3(y), where

```
int add3(int x)
{ return x+x+x;
}
```

value of z is

- (a) 8
- (b) 24
- (c) 888
- (d) non of the above.