X

Unit 4 - Week 2

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

- Lecture 3 Part 1 : Basic Elements of Program (unit?unit=27&lesson=37)
- Lecture 3 Part 2 : Basic Elements of Program (unit?unit=27&lesson=38)
- Lecture 3 Part 3 : Basic Elements of Program (unit?unit=27&lesson=39)
- Lecture 3 Part 4 : Basic Elements of

Week 2 - Assignment 2

The due date for submitting this assignment has passed. Due on 2020-02-12, 23:59 IST.
As per our records you have not submitted this assignment.

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1) For each of the following mention whether it is a valid identifier ***1 point***

- [ ] _x
- [ ] @x
- [ ] x@y
- [ ] x3
- [ ] 3x

No, the answer is incorrect.
Score: 0

Accepted Answers:
_x
x3

---

2) To print a message "What is your name?" the proper command is ***1 point***

- ( ) cout >> "What is your name?";
- ( ) cout >> 'What is your name?';
- ( ) cout << "What is your name?";
- ( ) cout << 'What is your name?';

No, the answer is incorrect.
Score: 0

Accepted Answers:

Program (unit?unit=27&lesson=40)
Lecture 4 Part 1 : Program Design (unit?unit=27&lesson=42)
Lecture 4 Part 2 : Program Design (unit?unit=27&lesson=41)
Lecture 4 Part 3 : Program Design (unit?unit=27&lesson=43)
Lecture 5 : Simple cpp Graphics (unit?unit=27&lesson=44)
Quiz : Week 2 - Assignment 2 (assessment?name=166)
Week 2 Programming Assignments 1 (/noc20_cs53/progassignment?name=168)
Week 2 Programming Assignment 2 (/noc20_cs53/progassignment?name=169)
Download Videos (unit?unit=27&lesson=178)
Weekly Feedback (unit?unit=27&lesson=190)
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9
Week 10

cout << "What is your name?";

What will be printed because of the following code

```
int x=5;
double xx=5;
cout << 1/2*x << endl; // OUTPUT1
cout << 1/2*xx << endl; // OUTPUT2
cout << x/2 << endl; // OUTPUT3
cout << xx/2 << endl; // OUTPUT4
```

3) What is OUTPUT1?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 0

1 point

4) What is OUTPUT2?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 0

1 point

5) What is OUTPUT3?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 2

1 point

6) What is OUTPUT4?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 2.5

1 point

---

7) What is printed because of the following code?

```
int x = 2;
repeat(4){ x = x*x; }
cout << x << endl;
```

Week 11

Week 12

Text Transcripts

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 65536

1 point

8) Based on the previous exercise, how many multiplication operations will be enough for calculating 3^8, i.e. 3 to the power 8?

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 3

1 point

---

9) What will be printed by the following code?

```
1 int x=4;
2 repeat(4){ x = 2 * x + 3; }
3 cout << x << endl;
```

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 109

1 point

The code below, with the proper initialization of x, y, is supposed to print the sequence 5, 9, 17, 33, 65.

```
int x = _, y = _;
repeat(5){
  cout << x << endl;
  x = 2*x + y;
}
```

10) What should x be initialized to?

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 5

1 point

11) What should y be initialized to?

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) -1

1 point

The next few questions are for the program given below. The program is expected to compute the value of the mathematical constant 'e'.You are to fill in the blanks as per the plan given in the comments

```
main_program{
    int n; cin >> n;
    double i= BlankA, term = BlankB, result = BlankC;
    repeat(n){// On t-th entry, t=1..n
       // i=t-1, term=1/t!
       // result =1/0!+..+1/(t-1)!
       BlankD
    }
 cout << result << endl;
}
```

12)What is BlankA?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 0

1 point

13)What is BlankB?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 1

1 point

14)What is BlankC?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 1

1 point

15)Which of the following will be correct in BlankD? ***0 points***

-
```
i = i + 1;
term = term / (i+1);
result = result + term;
```
-
```
result = result + term;
i = i + 1;
term = term / (i+1);
```
-
```
i = i + 1;
```

```
  result = result + term;
  term = term / (i+1);
```

```
  term = term / (i+1);
  result = result + term;
  i = i + 1;
```

No, the answer is incorrect.
Score: 0

Accepted Answers:
result = result + term;
i = i + 1;
term = term / (i+1);

Consider the code below for calculating the value of e. It solves the same problem as discussed in the lecture but it does it differently. In the ith iteration it calculates the value of 1/i! and adds it to the result

```
main_program{
 int n; cin >> n;

 double result = 0;
 int i=Blank-X;

 repeat(n){
  // calculate 1/i!
  int t=1;
  double term = 1;
  repeat(i){
   term = term/t;
   t = t + 1;
  }
  result = result + term;
  i = i + 1;
 }
 cout << result << endl;

}
```

16) What should i be initialized to (Blank-X)?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 0

1 point

17) How many division operations does the above code do for n=10?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 45

1 point

18) How many division operations did the code discussed in the lecture do for n=10?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 10

1 point

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19) Give the statement which would enable you to create a rectangle having corners (10,30), (50,30), (10,80), (50,80). The rectangle should be given the name "r1".

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: String) Rectangle r1(30,55,40,50);

1 point

20) Give the command that would rotate the above rectangle right by 5 degrees about its center.

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: String) r1.right(5);
*(Type: String) r1.rotate(5*3.14/180);*

1 point

Fill in the blanks in the following code which is intended for drawing 5 circles of radius 50 pixels centered at points (100,100), (150,100), (200,100), (250,100), (300,100).

```
initCanvas();
double x=100;
repeat(5){
  Circle c(x,BLANK-P,BLANK-Q);
  c.imprint();
  x = x + BLANK-R;
}
```

21) What is BLANK-P?
Use as few spaces as possible

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 100

1 point

22) What is BLANK-Q?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 50

1 point

23)What is BLANK-R?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 50

1 point