

**Question Number : 122 Question Id : 640653563830 Question Type : SA Calculator : None**  
**Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 3**

Question Label : Short Answer Question

What weight will be assigned to the point  $[1, 1]^T$  when training the second decision stump, assuming the weights are not normalized to add up to one? Please enter your answer rounded to two decimal places.

**Response Type : Numeric**  
**Evaluation Required For SA : Yes**  
**Show Word Count : Yes**

**Answers Type : Range**  
**Text Areas : PlainText**

**Possible Answers :**

0.11 to 0.15

**AppDev1**

Section Id :	64065338323
Section Number :	6
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	28
Number of Questions to be attempted :	28
Section Marks :	100
Display Number Panel :	Yes
Group All Questions :	No
Enable Mark as Answered Mark for Review and	Yes

Clear Response :  
Maximum Instruction Time : 0  
Sub-Section Number : 1  
Sub-Section Id : 64065380378  
Question Shuffling Allowed : No  
Is Section Default? : null

Question Number : 123 Question Id : 640653563831 Question Type : MCQ Is Question  
Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction  
Time : 0  
Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "DIPLOMA LEVEL : MODERN APPLICATION  
DEVELOPMENT 1 (COMPUTER BASED EXAM)"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT?  
CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECTS TO BE WRITTEN.

(IF IT IS NOT THE CORRECT SUBJECT, PLS CHECK THE SECTION AT THE TOP FOR THE SUBJECTS  
REGISTERED BY YOU)

Options :

6406531884768. ✓ YES

6406531884769. ✗ NO

Sub-Section Number : 2  
Sub-Section Id : 64065380379  
Question Shuffling Allowed : Yes  
Is Section Default? : null

Question Number : 124 Question Id : 640653563832 Question Type : MCQ Is Question  
Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction  
Time : 0

**Correct Marks : 2**

Question Label : Multiple Choice Question

Consider two HTML files `home.html` and `about.html`. The correct way of embedding a link within the text "**Click here**" in `home.html` that redirects to the `about.html` page is \_\_\_\_\_.

**Options :**

6406531884770. ✓

```
<a href= "about.html">Click here</a>
```

6406531884771. ✗

```
<a src="about.html">Click here</a>
```

6406531884772. ✗

```

```

6406531884773. ✗

```
<input onclick="about.html" name="Click here" value="Click here">
```

**Question Number : 125 Question Id : 640653563836 Question Type : MCQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2**

Question Label : Multiple Choice Question

Consider the following statements regarding Continuous Integration and Continuous Deployment and select the correct option.

**Statement 1:** As part of continuous integration, frequent, isolated changes are tested and reported on as soon as they are added to a larger code base.

**Statement 2:** When a change is made to an application, it is automatically deployed into production using a continuous deployment strategy.

**Options :**

6406531884786. ✖ Statement 1 is correct and statement 2 is incorrect.

6406531884787. ✖ Statement 1 is incorrect and statement 2 is correct.

6406531884788. ✔ Statement 1 and statement 2 both are correct.

6406531884789. ✖ Statement 1 and statement 2 both are incorrect.

**Question Number : 126 Question Id : 640653563837 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2**

Question Label : Multiple Choice Question

A linked list is used to store data elements in an unsorted manner. What is the worst time complexity for searching an element in memory? [N is the number of elements in the linked list]

**Options :**

6406531884790. ✖  $O(1)$

6406531884791. ✖  $O(\log N)$

6406531884792. ✔  $O(N)$

6406531884793. ✖  $O(N \log N)$

**Question Number : 127 Question Id : 640653563840 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2**

Question Label : Multiple Choice Question

Match the following types of testing with their functionality.

A. Unit testing	1. Focuses primarily on input and output of the software application.
B. Black box testing	2. Analyzes the internal structures, the data structures, internal design, code structure, and the working of the software.
C. White box testing	3. Testing the functionality of the software. In the event of errors, they can access the software code.
D. Grey box testing	4. Tests individual pieces of source code.

Which of the following is the correct matching?

**Options :**

6406531884802. ✖ A → 1, B → 2, C → 3, D → 4

6406531884803. ✖ A → 4, B → 3, C → 2, D → 1

6406531884804. ✔ A → 4, B → 1, C → 2, D → 3

6406531884805. ✖ A → 3, B → 2, C → 1, D → 4

**Question Number : 128 Question Id : 640653563842 Question Type : MCQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2**

**Question Label : Multiple Choice Question**

Consider the following code:

```
{% extends 'base.html' %}
{% block title%} My Title {% endblock %}
{% block body %} My body {% endblock %}
```

The above code is an example of \_\_\_\_\_.

**Options :**

6406531884810. ✖ Controller function

6406531884811. ✖ Model class

6406531884812. ✔ Template Inheritance

6406531884813. ✖ View function

**Question Number : 129 Question Id : 640653563844 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2**

Question Label : Multiple Choice Question

Which of the following correctly represents the components of the given URL?

```
https://www.mywebsite.com/home?user=Mad1&key=madkey123
```

**Options :**

```
https : Domain name;  
www.mywebsite.com : Request parameter;  
/home : Directory;  
user=Mad1&key=madkey123 : domain name
```

6406531884818. ✖

```
https : Protocol;  
www.mywebsite.com : Directory;  
/home : Domain name;  
user=Mad1&key=madkey123 : Request parameters
```

6406531884819. ✖

```
https : Protocol;  
www.mywebsite.com : Domain name;  
/home : Directory;  
user=Mad1&key=madkey123 : Request parameters
```

6406531884820. ✔

```
https : IP Address;  
www.mywebsite.com : Domain name;  
/home : Directory;  
user=Mad1&key=madkey123 : Local Host
```

6406531884821. ✖

**Question Number : 130 Question Id : 640653563856 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2**

Question Label : Multiple Choice Question

Read the following statements regarding web accessibility principles and choose the correct option.

**Statement 1:** The web pages with captions and alternative for multimedia makes the user interface operable and easy to navigate

**Statement 2:** A web page with robust content and reliable interpretation refers to its content being compatible with current and future user tools

**Options :**

6406531884862. ✖ Both statement 1 and statement 2 are correct.

6406531884863. ✖ Both statement 1 and statement 2 are incorrect

6406531884864. ✖ Statement 1 is correct but statement 2 is incorrect.

6406531884865. ✔ Statement 1 is incorrect but statement 2 is correct.

**Sub-Section Number :** 3

**Sub-Section Id :** 64065380380

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 131 Question Id : 640653563833 Question Type : MCQ Is Question**



**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

Question Label : Multiple Choice Question

Consider the following Table subjects in SQLite database created using model class "Subjects" and the python file main.py given below.

**subjects:**

id	name	subjects
1	Pradip	CSE
2	Kumar	CIVIL
3	Pradip	ECE
4	Kumar	EE
5	Murmu	Mining

**main.py**

```
from jinja2 import Template
templates = """
    {% if result %}
    <ol>
        {% for student in result %}
        <li>{{student.name}}</li>
        <li>{{student.subjects}}</li>
        {% endfor %}
    </ol>
    {% endif %}
    """

Sub = Subjects.query.filter_by(name = 'Pradip').all()

Templates = Template(templates)
result = Templates.render(result = Sub)
print(result)
```

What will be the output on the terminal?

**Options :**

Pradip CSE  
Pradip ECE

6406531884774. ✖



```
<ol>
  <li>Pradip CSE</li>
  <li>Pradip ECE</li>
</ol>
```

6406531884775. ✖

```
<ol>
  <li>Pradip</li>
  <li>CSE</li>
  <li>Pradip</li>
  <li>ECE</li>
</ol>
```

6406531884776. ✔

```
Pradip
CSE
Pradip
ECE
```

6406531884777. ✖

**Question Number : 132 Question Id : 640653563834 Question Type : MCQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

**Question Label : Multiple Choice Question**

Consider the two python files `main.py` and `test_sample.py`.

#### `main.py`

```
from flask import Flask
app = Flask(__name__)

@app.route('/hello')
def hello():
    return 'Hello World'

@app.route('/home')
def home():
    return 'Hello Home'

if __name__ == '__main__':
    app.run(debug = True)
```

#### `test_sample.py`

```
import pytest, requests

@pytest.fixture
def get_url_response():
    response = requests.get('http://127.0.0.1:5000/hello')
    return response

def test_statuscode(get_url_response):
    assert get_url_response.status_code == 200

def test_text(get_url_response):
    assert get_url_response.text == 'Hello Home'
```

Assuming `main.py` is running locally in the terminal. In another local terminal run “pytest” command. What will be the output of the `test_sample.py` file?

#### Options :

6406531884778. ✖ 2 passed

6406531884779. ✔ 1 failed 1 passed

6406531884780. ✖ 2 failed

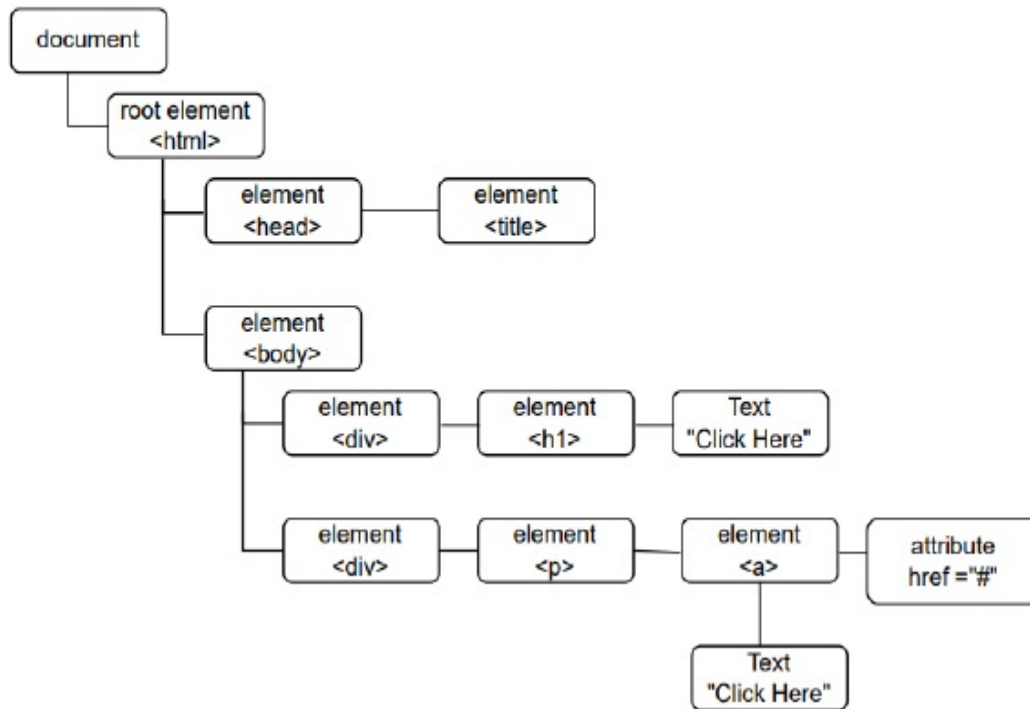
6406531884781. ✖ No tests

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

Question Label : Multiple Choice Question

Which of the following HTML code is correctly represented by the DOM structure below?



**Options :**

```
<html>
<head>
  <title>My website</title>
</head>
<body>
  <div>
    <h1> Header </h1>
    <p><a href="#"> Click Here </a></p>
  </div>
</body>
</html>
```

6406531884806. ✖

6406531884807. ✔

```

<html>
<head>
  <title>My website</title>
</head>
<body>
  <div>
    <h1> Header </h1>
  </div>
  <div>
    <p> <a href="#"> Click Here </a> </p>
  </div>
</body>
</html>

```

```

<html>
<head>
  <title>My website</title>
</head>
<body>
  <div>
    <h1> Header </h1>
  </div>
  <div>
    <p>Paragraph</p>
    <a href="#"> Click Here </a>
  </div>
</body>
</html>

```

6406531884808. ✖

```

<html>
<head>
  <title>My website</title>
</head>
<body>
  <h1> Header </h1>
  <p><a href="#"> Click Here </a></p>
</body>
</html>

```

6406531884809. ✖

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

Question Label : Multiple Choice Question

An HTML code and its rendered output is given below. Which of the following CSS code correctly represent(s) the content of `style.css`

HTML code:

```
<!DOCTYPE html>
<html>
  <head>
    <link href="style.css" rel="stylesheet" type="text/css"/>
    <style>
      body{background-color: lavender; text-align: center;}
      h2{color: blue;}
    </style>
  </head>
  <body>
    <h2>Welcome to IIT</h2>
    <p class="blue">My color is blue </p>
    <p class="red">My color is red </p>
    <p class="green">My color is green</p>

  </body>
</html>
```

Output:

Welcome to IIT

My color is blue

My color is red

My color is green

**Options :**

6406531884814. ✖

```
.blue{color: red;}  
.red{color: green;}  
.green{color: blue;}
```

```
.blue{color: green;}  
.red{color: blue;}  
.green{color: red;}
```

6406531884815. ✖

```
.blue{color: blue;}  
.red{color: red;}  
.green{color: green;}
```

6406531884816. ✔

6406531884817. ✖ All of these

**Question Number : 135 Question Id : 640653563845 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

Question Label : Multiple Choice Question

Consider the following table “emp” created in SQLite database corresponding to model class “Employee” using flask\_sqlalchemy.

Id	Name	Designation	Gender	Salary
1	Raji	Headmaster	Female	4500
2	Ram	Teacher	Male	5000
3	Raveena	Teacher	Female	3000
4	Reshma	Technical staff	Female	2000
5	Ravi	Teacher	Male	1000

Which of the following code snippets correctly increases the salary of all the female workers by 500 Rupees when typed in the Python console?



Options :

```
>>> emp = Employee.query.filter_by(Designation = 'Teacher').all()
>>> for staff in emp:
...     staff.Salary += 500
...
>>> db.session.commit()
```

6406531884822. ✖

```
>>> emp = Employee.query.filter_by(Gender = 'Female').all()
>>> staff.Salary += 500
>>> db.session.commit()
```

6406531884823. ✖

```
>>> emp = Employee.query.filter_by(Gender = 'Female').all()
>>> for staff in emp:
...     staff.Salary += 500
...
>>> db.session.commit()
```

6406531884824. ✔

```
>>> emp = Employee.query.filter(Employee.Gender.like('M%')).all()
>>> for staff in emp:
...     staff.Salary += 500
...
>>> db.session.commit()
```

6406531884825. ✖

Question Number : 136 Question Id : 640653563846 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question



What will be the output on the terminal for the given Python code snippet.

```
def f1(a=4,b=5):
    def f2(x, y):
        if y==5:
            print("HiFive")
        print("inside f2_func")
    print("inside f1_func")
    f2(a,b)

@f1
def f3():
    pass
print(f3)
```

Options :

```
inside f2_func
pass
inside f1_func
None
```

6406531884826. ✖

```
inside f1_func
inside f2_func
f3
```

6406531884827. ✖

```
inside f2_func
HiFive
inside f1_func
f3
```

6406531884828. ✖

```
inside f1_func
HiFive
inside f2_func
None
```

6406531884829. ✔

Question Number : 137 Question Id : 640653563847 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

Consider the following table "stud\_table" in SQLite database.

ID	Name	Age	Mark	course
Filter	Filter	Filter	Filter	Filter
1	Vishnu	20	98	M1
2	Kumar	18	90	M2
3	Leela	20	90	M1
4	Naren	18	98	M2
5	Vishal	19	95	M1
6	Pranav	20	95	M2
7	Vinu	19	90	M1
8	Viki	18	95	M2

What will be the output of the following SQL queries given below?

```
CREATE UNIQUE INDEX IF NOT EXISTS index_name
ON stud_table (Name ASC, Mark ASC) WHERE Age>18;
SELECT ID, Name, Age, Mark, course FROM stud_table WHERE
Age>18;
```

Options :

index\_name will be created

ID	Name	Age	Mark	course
2	Kumar	18	90	M2
4	Naren	18	98	M2
8	Viki	18	95	M2

6406531884830. ✖

index\_name will be created

ID	Name	Age	Mark	course
3	Leela	20	90	M1
6	Pranav	20	95	M2
7	Vinu	19	90	M1
5	Vishal	19	95	M1
1	Vishnu	20	98	M1

6406531884831. ✔

index\_name will not be created

ID	Name	Age	Mark	course
2	Kumar	18	90	M2
4	Naren	18	98	M2
8	Viki	18	95	M2
3	Leela	20	90	M1
6	Pranav	20	95	M2
7	Vinu	19	90	M1
5	Vishal	19	95	M1
1	Vishnu	20	98	M1

6406531884832. ✖

index\_name will not be created

ID	Name	Age	Mark	course
1	Vishnu	20	98	M1
2	Kumar	18	90	M2
3	Leela	20	90	M1
4	Naren	18	98	M2

6406531884833. ✖

Question Number : 138 Question Id : 640653563849 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

If  $N_x$  is a number N represented in the base 'x' and the equation.

$$110_a = 420_b = 272_c$$

Holds for a specific set of a, b and c. The correct values of a, b and c that satisfy the above equation are:

Options :

6406531884838. ✖ a = 8; b = 10; c = 16;

6406531884839. ✖ a = 10; b = 8; c = 16;

6406531884840. ✔ a = 16; b = 8; c = 10;

6406531884841. ✖ a = 10; b = 16; c = 8;

**Question Number : 139 Question Id : 640653563854 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

Question Label : Multiple Choice Question

Consider an IPv4 address given as 95.24.123.45 If each bit of its binary equivalent is complemented and converted back to decimal, what will be the new IPv4 address formed?

**Options :**

6406531884854. ✖ 127.35.231.55

6406531884855. ✖ 95.251.127.45

6406531884856. ✔ 160.231.132.210

6406531884857. ✖ 160.123.210.231

**Question Number : 140 Question Id : 640653563855 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

Question Label : Multiple Choice Question

How will the browser render the following HTML document?

```
<html>
  <body>
    <div>Hello from div 1</div>
    <div>Hello from div 2</div>
    <span>Hello from span 1</span>
    <span>Hello from span 2</span>
  </body>
</html>
```

Options :

Hello from div 1  
Hello from div 2  
Hello from span 1  
Hello from span 2

6406531884858. ✖

Hello from div 1  
Hello from div 2  
Hello from span 1 Hello from span 2

6406531884859. ✔

Hello from div 1 Hello from div 2  
Hello from span 1  
Hello from span 2

6406531884860. ✖

Hello from div 1 Hello from div 2 Hello from span 1 Hello from span 2

6406531884861. ✖

Question Number : 141 Question Id : 640653563866 Question Type : MCQ Is Question

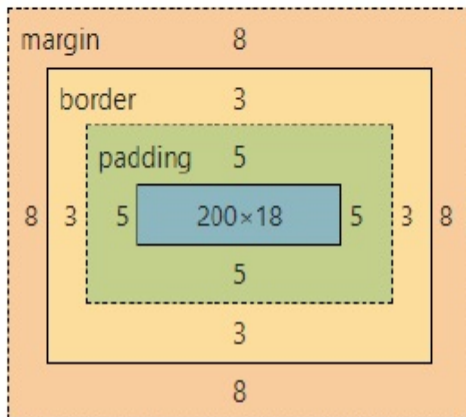
Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

An element `<div>` with id `my_div` whose initial box model is given below. The box model of the element is altered by DOM manipulation using the script given below.

Initial box model of the `<div>` element

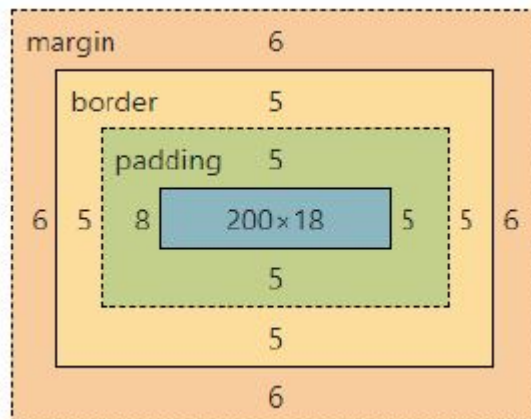


Script:

```
<script>
  el = document.getElementById('my_div')
  el.style.paddingLeft = '8px';
  el.style.marginRight = '6px';
  el.style.borderWidth = '5px';
</script>
```

What will be the modified box model?

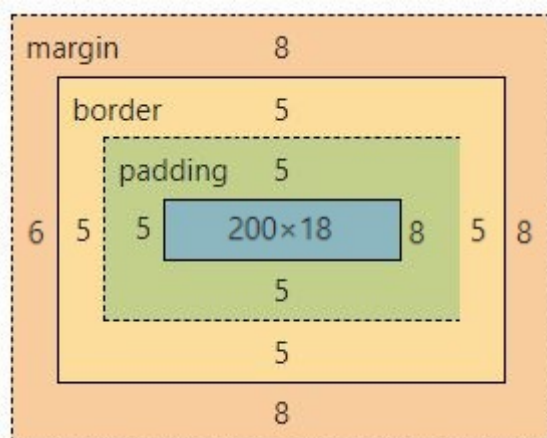
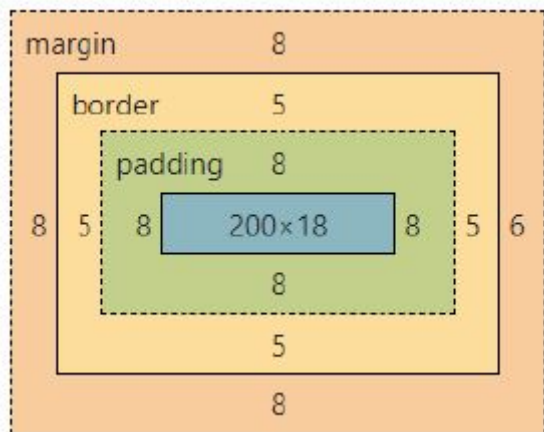
Options :



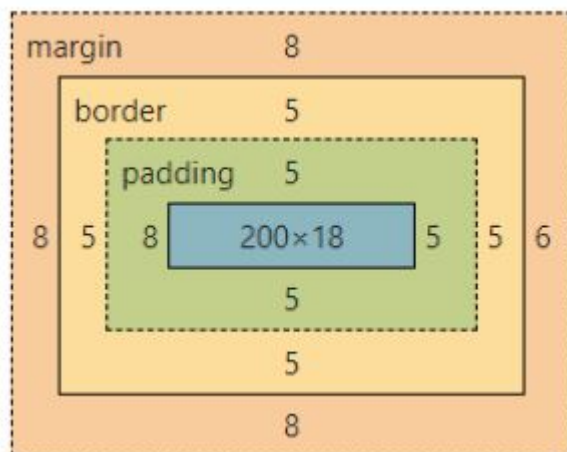
6406531884890. ✖

6406531884891. ✖





6406531884892. ✖



6406531884893. ✔

Sub-Section Number :

4

Sub-Section Id :

64065380381

Question Shuffling Allowed :

Yes

Is Section Default? :

null



**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Selectable Option : 0**

Question Label : Multiple Select Question

In terms of logging, which of the following statements is/are true?

**Options :**

6406531884782. ✔ Helps in identifying unexpected issues in the application and debugging them.

6406531884783. ✖ Maintains the source code version.

6406531884784. ✖ Detect the test file and test functions automatically.

6406531884785. ✔ Keeping track of the application's events.

<b>Sub-Section Number :</b>	5
<b>Sub-Section Id :</b>	64065380382
<b>Question Shuffling Allowed :</b>	Yes
<b>Is Section Default? :</b>	null

**Question Number : 143 Question Id : 640653563838 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3 Selectable Option : 0**

Question Label : Multiple Select Question

Consider following flask app.

```
from flask import Flask
from flask_restful import Resource, Api

app = Flask(__name__)
api = Api(app)

class Testing(Resource):
    def get(self):
        return {'data': 'GET'}

    def post(self, data):
        return {'data': 'POST'}

api.add_resource(Testing, '/', '<string:data>')

if __name__ == '__main__':
    app.run(debug=True)
```

The flask app is running locally in the terminal. Which of the following command(s) will return the response without any error?

**Options :**

6406531884794. ✓

```
curl http://127.0.0.1:5000/Peekay -X POST -H 'Content-Type: application/json'
```

6406531884795. ✗

```
curl http://127.0.0.1:5000/Peekay -X GET -H 'Content-Type: application/json'
```

6406531884796. ✓

```
curl http://127.0.0.1:5000/ -X GET -H 'Content-Type: application/json'
```

6406531884797. ✗

```
curl http://127.0.0.1:5000/ -X POST -H 'Content-Type: application/json'
```

**Question Number : 144 Question Id : 640653563848 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction**

Time : 0

Correct Marks : 3 Selectable Option : 0

Question Label : Multiple Select Question

Consider the following flask application running on the base URL and is accessed through a browser. Select the correct option(s).

```
from flask import Flask, abort, request

app = Flask(__name__)

users = {
    1 : {"Name": "Ritu", "role": "Admin", "access": True},
    2 : {"Name": "Ramesh", "role": "User", "access": True},
    3 : {"Name": "Tejas", "role": "Admin", "access": True},
    4 : {"Name": "Manisha", "role": "User", "access": False}
}

@app.route('/login')
def auth():
    cred = request.args
    if users[int(cred["id"])].get("access"):
        id = int(cred["id"])
        user = users[id]
        return "Welcome, " + user.get("Name") + ", you have "
        "+user.get("role")+" access"
    else:
        abort(403)

@app.errorhandler(403)
def no_access(error):
    return "Looks like you are not an authorized user!"

app.run(debug = True)
```

Options :

For the URL: `http://127.0.0.1:5000/login?id=2`, The browser will render;  
6406531884834. ✓ Welcome, Ramesh, you have User access.

For the URL: `http://127.0.0.1:5000?id=3`, The browser will render;  
6406531884835. ✗ Welcome, Tejas, you have Admin access.

6406531884836. ✓ For the URL: `http://127.0.0.1:5000/login?id=4`, The browser will render; Looks like you are not an authorized user!.

6406531884837. ✗ For the URL: `http://127.0.0.1:5000/login?id=5`, The browser will render; Looks like you are not an authorized user!.

**Question Number : 145 Question Id : 640653563867 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3 Selectable Option : 0**

Question Label : Multiple Select Question

Which of the following statements regarding the version control system git is/are correct?

**Options :**

6406531884894. ✗ The command `git rm <filename>` removes the file from staging only.

6406531884895. ✓ The command `git rm <filename>` removes the file from staging as well as deletes the file from the directory.

6406531884896. ✓ The command `git checkout <branch_name>` creates a new branch with the given name.

6406531884897. ✗ The command `git checkout <branch_name>` creates a new branch with the given name and also moves the control in the newly created branch.

**Sub-Section Number :** 6

**Sub-Section Id :** 64065380383

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 146 Question Id : 640653563839 Question Type : MCQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4.5**

Question Label : Multiple Choice Question

Consider the following Python code snippet.

```
from jinja2 import Template

data = [
    {"vehicle_id": "ev101", "vehicle_name": "electroN", "fuel_type": "electric"},
    {"vehicle_id": "pt201", "vehicle_name": "discover", "fuel_type": "petrol"},
    {"vehicle_id": "dz301", "vehicle_name": "apex", "fuel_type": "diesel"},
]

this_text = """
    <h1> Ordered Vehicles </h1>
    {% set keys = data[0].keys() %}
    {% set keys = keys|list %}
    {% for i in range(data|length) %}
        {{keys[i]}} : {{data[i][keys[i]]}}
    {% endfor %}
    <h3> Total: {{ data|length }} </h3>
    """

this_temp = Template(this_text)
rendered = this_temp.render(data = data)
print(rendered)
```

How will the browser render the output of the above given Python code?

**Options :**

## Ordered Vehicles

vehicle\_id : pt201

vehicle\_name : discover

fuel\_type : petrol

**Total: 3**

6406531884798. ✖

6406531884799. ✖



# Ordered Vehicles

vehicle\_id : ev101  
vehicle\_name : electroN  
fuel\_type : electric  
**Total: 3**

# Ordered Vehicles

vehicle\_id : ev101  
vehicle\_name : discover  
fuel\_type : diesel  
**Total: 3**

6406531884800. ✓

# Ordered Vehicles

vehicle\_id : dz301  
vehicle\_name : discover  
fuel\_type : electric  
**Total: 3**

6406531884801. ✗

Sub-Section Number :	7
Sub-Section Id :	64065380384
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653563850 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Question Numbers : (147 to 149)

## Question Label : Comprehension

An API resource created using flask\_restful is shown below. Answer the given subquestions if the app is running locally on `http://127.0.0.1:5000`

```
from flask import Flask, make_response
from flask_restful import Resource, Api, reqparse
from werkzeug.exceptions import HTTPException

app = Flask(__name__)
api = Api(app)

objects = {
    "bot101": {"obj_code": "BOT01", "obj_name": "bottles"},
    "sop109": {"obj_code": "SOP09", "obj_name": "soaps"},
    "can103": {"obj_code": "CAN03", "obj_name": "candles"}
}

to_parse = reqparse.RequestParser()
to_parse.add_argument("obj_code")
to_parse.add_argument("obj_name")

class NoObjectError(HTTPException):
    def __init__(self, status, error):
        self.response = make_response({"Error": error}, status)

class BadRequest(HTTPException):
    def __init__(self, status, error):
        self.response = make_response({"Error": error}, status)

class Objects(Resource):
    def get(self, id):
        args = to_parse.parse_args()
        if id in objects:
            my_obj = objects[id]
            if args["obj_code"] == None:
                raise BadRequest(404, "Object code missing.")
            if args["obj_name"] == None:
                raise BadRequest(404, "Object name missing.")
            else:
                my_obj["obj_code"] = args["obj_code"]
                my_obj["obj_name"] = args["obj_name"]
            return my_obj
        else:
            raise NoObjectError(404, "Object doesn't exist in the database.")

api.add_resource(Objects, "/get_object/<id>")

app.run(debug = True)
```

## Sub questions

Question Number : 147 Question Id : 640653563851 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0



**Correct Marks : 4.5**

Question Label : Multiple Choice Question

What will be the output on the terminal  
for the request:

```
curl http://127.0.0.1:5000/get_object/sop109 -X GET -d '{"obj_code" :  
"MOP02", "obj_name": "mop"}' -H "Content-Type: application/json"
```

**Options :**

```
{  
  "Error": "Object doesn't exist in the database."  
}
```

6406531884842. ✖

```
{  
  "obj_code": "SOP09",  
  "obj_name": "soaps"  
}
```

6406531884843. ✖

```
{  
  "obj_code": "MOP02",  
  "obj_name": "mop"  
}
```

6406531884844. ✔

```
{  
  "Error": "Object name missing."  
}
```

6406531884845. ✖

**Question Number : 148 Question Id : 640653563852 Question Type : MCQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction  
Time : 0**

**Correct Marks : 4.5**

Question Label : Multiple Choice Question

What will be the output on the terminal  
for the request:

```
curl http://127.0.0.1:5000/get_object/sop190 -X GET -d "{\"obj_name\":  
\"new bottles\"}" -H "Content-Type: application/json"
```

**Options :**

```
{  
  "Error": "Object code missing."  
}
```

6406531884846. ✖

```
{  
  "Error": "Object name missing."  
}
```

6406531884847. ✖

```
{  
  "obj_name": "new bottles"  
}
```

6406531884848. ✖

```
{  
  "Error": "Object doesn't exist in the database."  
}
```

6406531884849. ✔

**Question Number : 149 Question Id : 640653563853 Question Type : MCQ Is Question  
Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction  
Time : 0**

**Correct Marks : 4.5**

**Question Label : Multiple Choice Question**

What will be the output on the terminal  
for the request:

```
curl http://127.0.0.1:5000/get_object/can103 -X GET -H "Content-Type:  
application/json"
```

Options :

6406531884850. ✖

```
{
  "obj_code": "CAN03",
  "obj_name": "candles"
}
```

6406531884851. ✖

```
{
  "Error": "Object code missing."
  "Error": "Object name missing."
}
```

6406531884852. ✔

```
{
  "Error": "Object code missing."
}
```

6406531884853. ✖

```
{
  "Error": "Object name missing."
}
```

Sub-Section Number :	8
Sub-Section Id :	64065380385
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653563857 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (150 to 151)

Question Label : Comprehension

A machine client M makes multiple requests to three different servers A, B and C in the order A then B followed by C. However, it can make a request to server B only after receiving the response

from server A and same with server C i.e the client can make a request to server C only after receiving response from server B. If the servers A, B and C are located at 1200 kms, 1800 kms and 2400 kms respectively, answer the given subquestions.[Consider speed of light in air to be  $3 \times 10^8$  m/s]

### Sub questions

**Question Number : 150 Question Id : 640653563858 Question Type : MCQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4.5**

Question Label : Multiple Choice Question

What is the maximum number of requests that can be made to B per second?

**Options :**

6406531884866. ✖ 20

6406531884867. ✔ 27

6406531884868. ✖ 83

6406531884869. ✖ 125

**Question Number : 151 Question Id : 640653563859 Question Type : MCQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

Question Label : Multiple Choice Question

What is the round trip time (RTT) in milliseconds for server C?

**Options :**

6406531884870. ✖ 8

6406531884871. ✖ 12

6406531884872. ✔ 16

6406531884873. ✖ 20

**Question Id : 640653563860 Question Type : COMPREHENSION Sub Question Shuffling**  
**Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix**  
**Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Question Numbers : (152 to 153)**

Question Label : Comprehension

Consider the following tables 'product' and 'category' that represent models 'Product' and 'Category' in SQLite database and answer the given subquestions.

```
class Product(db.Model):
    product_id = db.Column(db.Integer(), primary_key = True)
    product_name = db.Column(db.String(50), unique = True)
    category = db.Column(db.Integer(), db.ForeignKey('category.category_id'))
    cat = db.relationship('Category', back_populates = 'products')

class Category(db.Model):
    category_id = db.Column(db.Integer(), primary_key = True)
    category_name = db.Column(db.String(50), unique = True)
    products = db.relationship('Product', back_populates = 'cat')
```

### Sub questions

**Question Number : 152 Question Id : 640653563861 Question Type : MCQ Is Question**  
**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction**  
**Time : 0**  
**Correct Marks : 4.5**

Question Label : Multiple Choice Question

Which of the following statements about the tables 'product' and 'category' is correct?

**Options :**

6406531884874. ✔ Multiple instances of Product can belong to a single instance of Category.

6406531884875. ✖ Multiple instances of Category can belong to a single instance of Product but the converse is not true.

6406531884876. ✖ Multiple instances of Product can belong to a single instance of Category and vice versa.

6406531884877. ✖ One instance of Category can belong to any one instance of Product only.

**Question Number : 153 Question Id : 640653563862 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3**

Question Label : Multiple Choice Question

Consider 'C1', an instance of table 'category' whose category\_id is 2. The correct way of adding a product 'compass' to this category is:

**Options :**

```
>>> p1 = Product(product_id = 2, product_name = 'compass')
>>> db.session.add(p1)
>>> db.session.commit()
```

6406531884878. ✖

```
>>> p1 = Product(product_name = 'compass', category = 1)
>>> db.session.add(p1)
>>> db.session.commit()
```

6406531884879. ✔

```
>>> p1 = Product(product_name = 'compass', category = C1)
>>> db.session.add(p1)
>>> db.session.commit()
```

6406531884880. ✖

```
>>> p1 = Product(product_name = 'compass')
>>> C1.products.append(p1)
>>> db.session.commit()
```

6406531884881. ✖

**Sub-Section Id :** 64065380386

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653563863 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Question Numbers : (154 to 155)**

**Question Label : Comprehension**

Consider the following resource API created with help of flask\_restful.

```
from flask import Flask, request
from flask_restful import Resource, Api

app = Flask(__name__)

api = Api(app)

class TestApi(Resource):
    def post(self, state, city):
        return {"state": state, "capital": city}

    def get(self):
        info = request.args
        return info

api.add_resource(TestApi, '/united_states', '/united_states/<state>/<city>')

app.run(debug = True)
```

If the above application is running locally on <http://127.0.0.1:5000>, answer the given subquestions.

## Sub questions

**Question Number : 154 Question Id : 640653563864 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4.5**

**Question Label : Multiple Choice Question**



Which of the following URL will return

a 200 OK for GET HTTP method?

Options :

`http://127.0.0.1:5000/massachusetts/boston`

6406531884882. ✖

`http://127.0.0.1:5000/united_states/massachusetts/boston`

6406531884883. ✖

`http://127.0.0.1:5000/united_states?state=massachusetts&capital=boston`

6406531884884. ✔

`http://127.0.0.1:5000?state=massachusetts&capital=boston`

6406531884885. ✖

Question Number : 155 Question Id : 640653563865 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4.5

Question Label : Multiple Choice Question

Which of the following URL will return

a 200 OK for POST HTTP method?

Options :

`http://127.0.0.1:5000/florida/tallahassee`

6406531884886. ✖

`http://127.0.0.1:5000/united_states/florida/tallahassee`

6406531884887. ✔

6406531884888. ✖

[http://127.0.0.1:5000/united\\_states?state=florida&capital=tallahassee](http://127.0.0.1:5000/united_states?state=florida&capital=tallahassee)

<http://127.0.0.1:5000?state=florida&capital=tallahassee>

6406531884889. ✖

## TDS

Section Id :	64065338324
Section Number :	7
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	62
Number of Questions to be attempted :	62
Section Marks :	70
Display Number Panel :	Yes
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	64065380387
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 156 Question Id : 640653563868 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 0