Possible Answers :

5

Question Number : 55 Question Id : 640653451313 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Selectable Option : 0

Question Label : Multiple Select Question

The point $\begin{bmatrix}10\\0\end{bmatrix}$ with label 1 is added to the existing training dataset. We will now refer to these 9 points as the new dataset.

Options :

6406531501949. ✖ The new dataset is **not** linearly separable.

6406531501950. ✔ The new dataset is linearly separable.

6406531501951. ✔ If a hard-margin, linear-SVM is trained on the new dataset, the optimal weight vector will be $\begin{bmatrix}3\\1\end{bmatrix}$

6406531501952. ✖ If a hard-margin, linear-SVM is trained on this new dataset with 9 points, the optimal weight vector will **not** be $\begin{bmatrix}3\\1\end{bmatrix}$

Section Id :	64065329314
Section Number :	3
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 Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	64065364851
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 56 Question Id : 640653451343 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"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT ?

CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECT TO BE WRITTEN.

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

Options :

6406531502010. ✔ YES

6406531502011. ✖ NO

Sub-Section Number : 2

Sub-Section Id : 64065364852

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 57 Question Id : 640653451344 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 URL given below.

http://appdev1.com/sep-22?week=2#MVC

Which of the following options correctly describes each component of the URL given above?

URL Component	Name
1. http	A. Domain Name
2. appdev1.com	B. Query String
3. /sep-22	C. Protocol
4. ?week=2	D. Fragment
5. #MVC	E. Path

Options :

6406531502012. ✖ 1-C, 2-A, 3-D, 4-B, 5-E

6406531502013. ✔ 1-C, 2-A, 3-E, 4-B, 5-D

6406531502014. ✖ 1-C, 2-A, 3-B, 4-D, 5-E

6406531502015. ✖ 1-C, 2-A, 3-B, 4-E, 5-D

Question Number : 58 Question Id : 640653451349 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 flask python snippet with all preliminary conditions.

```
class User(UserMixin, db.Model):
  id = db.Column(db.Integer, primary_key = True)
  name = db.Column(db.String(30))
  def __init__(self, id, name):
      self.id = id
      self.name = name
@login_manager.user_loader
def firstuser(id):
  return User.query.get(int(id))
@app.route('/')

def index():
  u1 = User.query.filter_by(id = 112).first()
  login_user(u1)
  return current_user.name + 'logged in'
@app.route('/logout')
@login_required
def logout():
  logout_user()
  return 'logged out'
@app.route('/home')
@login_required
def home():
  return "current user is " + current_user.name

def init_db():
  db.create_all()
  new_user = User(112,'Rose')
  new_user2 = User(113,'lily')
  db.session.add(new_user)
  db.session.add(new_user2)
  db.session.commit()
if __name__ == '__main__':
  init_db()
  app.run(debug = True)
```

If the above program is running in the URL "http://127.0.0.1:8000" then what will be the output for the given URLs in sequence.

- http://127.0.0.1:8000
- http://127.0.0.1:8000/home
- http://127.0.0.1:8000/logout

Options :

6406531502029. ✖ current user is lily

logged out

lily logged in

6406531502030. ✖ current user is Rose

logged out

Rose logged in

6406531502031. ✔ Rose logged in

current user is Rose

logged out

6406531502032. ✖ lily logged in

current user is lily

logged out

Question Number : 59 Question Id : 640653451351 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

Which of the following statements is true about the way of adding style in HTML documents?

Options :

6406531502037. ✖ Order of precedence of **external** styles is greater than **internal** and **inline** style attributes

6406531502038. ✖ Order of precedence of **internal** styles is greater than **inline** and **external** style attributes

6406531502039. ✔ Order of precedence of **Inline** styles is greater than **internal** and **external** style attributes

6406531502040. ✖ None of these

Question Number : 60 Question Id : 640653451353 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

Which of the following jinja template snippets correctly implements a **for loop** for creating a list of title links for an image?

Options :

6406531502045. ✖

```
<ul>
      {% for item in navigation %}
      <li>
      <a href = "{{item.href}}">{{item.title}}</a>
      </li>
      {% endfor-navigation %}
</ul>
```

6406531502046. ✖

```
<ul>
      {{ for item in navigation }}
      <li>
      <a href = "{%item.href%}">{%item.title%}</a>
      </li>
      {{ endfor }}
</ul>
```

6406531502047. ✔

```
<ul>
      {% for item in navigation %}
      <li>
      <a href = "{{item.href}}">{{item.title}}</a>
      </li>
      {% endfor %}
</ul>
```

6406531502048. ✖

```
<ul>
      {% for item in navigation %}
      <li>
      <a href = "{{item.href}}">{{item.title}}</a>
      </li>
      {% end %}
</ul>
```

Question Number : 61 Question Id : 640653451355 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

A template named **userinfo.html** contains the following line inside the body tag:

```
<h1> Hello {{user_name}}! </h1>
```

Which of the following code snippets will utilize the template to display **Hello Ram** when **http://localhost:5000/user/Ram** is visited on the browser?

Options :

6406531502053. ✖

```
@app.route('/user/<name>')
def user():
      return render_template('userinfo.html',user_name=name)
```

6406531502054. ✔

```
@app.route('/user/<name>')
def user(name):
      return render_template('userinfo.html',user_name=name)
```

6406531502055. ✖

```
@app.route('/user/<user_name>')
def user(name):
      return render_template('userinfo.html',user_name = name)
```

6406531502056. ✖

```
@app.route('/user/<name>')
def user(name):
      return render_template('templates/userinfo',user_name=name)
```

Question Number : 62 Question Id : 640653451356 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

Given the resource below, What is displayed when a user visits **"http://localhost:5000/hello"** on the browser?

```
from flask_restful import Api
api = Api(app)
class Hello(Resource):
    def post(self):
        return {'User':'Abhishek'}
api.add_resource(Hello,'/hello')
```

Options :

6406531502057. ✖

```
HTTP 404 - Page Not Found Error
```

6406531502058. ✖

```
{
      "Hello":"Abhishek"
}
```

6406531502059. ✖

```
Hello Abhishek
```

6406531502060. ✔

```
{
    "message": "The method is not allowed for the requested URL."
}
```

Question Number : 63 Question Id : 640653451359 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

A server, using the inbuilt http module of Python, is running for a directory **My_app** whose file structure and content of each file is given below.

Folder: My_app

```
My_app
   |_ home.html
   |_ index.html
   |_ main.html
```

File: home.html

```
<h1>Hello from Home!</h1>
```

File: index.html

```
<h1>Hello from Index!</h1>
```

File: main.html

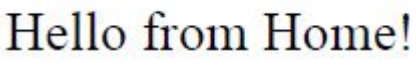
```
<h1>Hello from Main!</h1>
```

What will be rendered by the browser for the URL: http://localhost:8000 assuming that 8000 is the port of connection?

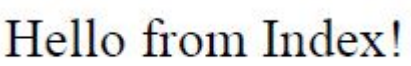
Options :

6406531502069. ✖

6406531502070. ✖



6406531502071. ✔



Hello from Main!

6406531502072. ✖

Question Number : 64 Question Id : 640653451377 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

Match the following:

A. API	1. Servers do not assume anything about the client's state; they only serve responses.
B. MVC	2. An action is assigned to each uniform resource locator.
C. Routing	3. A standard way defined between two applications for them to communicate.
D. Stateless	4. A design pattern that emphasizes the separation of concerns.

Which of the following is the correct?

Options :

6406531502125. ✖ A-1, B-2, C-3, D-4

6406531502126. ✖ A-2, B-4, C-1, D-3

6406531502127. ✔ A-3, B-4, C-2, D-1

6406531502128. ✖ A-4, B-3, C-1, D-2

Sub-Section Number :	3
Sub-Section Id :	64065364853
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 65 Question Id : 640653451348 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 HTML page with javascript, which is running at the URL http://127.0.0.1:8000, then choose the correct HTML rendering.

```
<!DOCTYPE html>
<html>
  <body>

    <h2>Creating a JSON String</h2>

    <p id="demo"></p>

    <script>
      const txt = '{"name":"Balu", "age":30, "city":"New Delhi"}'
      const obj = JSON.parse(txt);
      document.getElementById("demo").innerHTML = "Hi\n" + obj.name +
",\t" + obj.city + "," + obj.age*3;
      </script>

  </body>
</html>
```

Options :

6406531502025. ✖

Creating a JSON String

Hi Balu, New Delhi,30

6406531502026. ✖

Creating a JSON String

Hi Balu, 30, New Delhi

6406531502027. ✔

Creating a JSON String

Hi Balu, New Delhi,90

Creating a JSON String

Hi Balu, 90, New Delhi

6406531502028. ✖

Question Number : 66 Question Id : 640653451350 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

If the given python program is executed using pytest, then identify the status of the test code.

File name: test1.py

```
def dec(x):
      return x-1

def test_answer():
      assert dec(3) == 3
```

Options :

6406531502033. ✖ passed test1.py test_answer - assert 2 == 3

6406531502034. ✖ 2 Failed

6406531502035. ✖ 1 passed

6406531502036. ✔ Failed test1.py test_answer - assert 2 == 3

Question Number : 67 Question Id : 640653451352 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 lines can be used in a template to inherit another **base.html** template that provides a basic, uniform layout?

Options :

6406531502041. ✖ {% expand 'base.html'%}

6406531502042. ✖ {% include 'base.html'%}

6406531502043. ✔ {% extends 'base.html'%}

6406531502044. ✖ {% inherits 'base.html %}

Question Number : 68 Question Id : 640653451354 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 routes binds the **index()** function to the application's root URL and renders the **index.html** template?

Options :

6406531502049. ✖
```
@app.route('/')
def index():
      return render_template('index')
```

6406531502050. ✔
```
@app.route('/')
def index():
      return render_template('index.html')
```

6406531502051. ✖
```
@app.route('/')
def index():
      return render_template(index.html)
```

6406531502052. ✖
```
@app.route('index.html')
def index():
      return render_template('/')
```

Question Number : 69 Question Id : 640653451357 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

In the given HTML template, to correctly embed a URL in the href, the argument "user" in the "url_for" function must be a _____?

```
<a href = {{ url_for('user')}}>Click here</a>
```

Options :

6406531502061. ✔ A view function name

6406531502062. ✖ An HTML template name

6406531502063. ✖ A URL

6406531502064. ✖ An environment variable

Question Number : 70 Question Id : 640653451376 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 carefully and mark the correct answer:

Statement 1: Continuous integration is the practice of automating the integration of code changes from multiple contributors into a single software project

Statement 2: Continuous Delivery refers to automated delivery of “release package” on each successful test

Options :

6406531502121. ✖ Statement 1 is correct, but statement 2 is incorrect.

6406531502122. ✖ Statement 2 is correct, but statement 1 is incorrect.

6406531502123. ✔ Both statements 1 and 2 are correct.

6406531502124. ✖ Both statements 1 and 2 are incorrect.

Sub-Section Number : 4

Sub-Section Id : 64065364854

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 71 Question Id : 640653451378 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 constraints for the **"student"** table:

Column Name	Datatype	Constraints
RollNo	Integer	Primary Key
Name	String	Not Null
AadhaarNo	Integer	Not Null, UNIQUE
Department	String	Not Null

In most cases, the query executed in the student table looks like the one below.

```
SELECT RollNo, Name, AadhaarNo FROM student WHERE Department = 'Biology';
```

For the above student table, which of the following columns would be the most appropriate for the indexing?

Options :

6406531502129. ✖ RollNo

6406531502130. ✖ Name

6406531502131. ✖ AadhaarNo

6406531502132. ✔ Department

Sub-Section Number : 5

Sub-Section Id : 64065364855

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 72 Question Id : 640653451346 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 statement(s) is/are true regarding Git?

Options :

6406531502017. ✖ Git is an example of a centralized version control system.

6406531502018. ✔ A file can stay in both working directory and staging area at a given time, while working with Git.

6406531502019. ✖ Git and GitLab/GitHub are essentially the same.

6406531502020. ✔ The command "git checkout -b <branch_name>" will create the new branch and switches to the new branch created.

Question Number : 73 Question Id : 640653451347 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 statement(s) is/are false regarding database migrations?

Options :

6406531502021. ✔ Flask does not provide support for migrations, as of December 2022.

6406531502022. ✖ The database migration allows a developer to make schema changes without losing the data.

6406531502023. ✔ One of the disadvantages of migration is that a developer can only upgrade the database, and it does not allow rollbacks.

6406531502024. ✖ The migration is useful when a business wants to move from an on-premise database to a cloud based database.

Question Number : 74 Question Id : 640653451358 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 Model for User.

```
class User(db.Model):
      id = db.Column(db.Integer, primary_key=True)
      email = db.Column(db.String(100),unique=True,index=True)
      name = db.Column(db.String(100))
      password = db.Column(db.String(100))
```

Which of the following methods from the Flask-sqlalchemy package will behave the same as SQL query `select * from User where name='Ram'`?

Options :

6406531502065. ✔
```
User.query.filter(User.name = 'Ram').all()
```

6406531502066. ✖
```
User.query.get(name = 'Ram').all()
```

6406531502067. ✖
```
User.query.filter_by('Ram').all()
```

6406531502068. ✔
```
User.query.filter_by(name = 'Ram').all()
```

Sub-Section Number :	6
Sub-Section Id :	64065364856
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 75 Question Id : 640653451363 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4.5 Selectable Option : 0

Question Label : Multiple Select Question

Consider the following Python code snippet:

Filename: module_0.py

```
import sys

arguments = sys.argv

courses = {'MAD-1': '1002', 'MAD 2': '2003', 'BDM': '205', 'SysCom': '304'}

def operate():
    arg_1 = arguments[1]
    arg_2 = courses[arg_1]
    return f"The function output is: {len(arg_1 + arg_2)}"

print(operate())
```

The above file will yield the output as "The function output is: 9", for which of the following command line inputs?

Options :

6406531502081. ✔ `python module_0.py MAD-1`

6406531502082. ✖ `python module_0.py MAD 2`

6406531502083. ✖ `python module_0.py BDM`

6406531502084. ✔ `python module_0.py SysCom`

Question Number : 76 Question Id : 640653451374 Question Type : MSQ Is Question

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

Correct Marks : 4.5 Selectable Option : 0

Question Label : Multiple Select Question

Consider two software packages A and B spend exactly $T_A(N) = 2N^2 + 9$ and $T_B(N) = N^3$ milliseconds to process N data items. Analyze the software packages and select the correct statement(s).

Options :

6406531502113. ✖ Software package A is faster than Software package B for inputs in the range N ∈ [0,3]

6406531502114. ✔ Software package B is faster than Software package A for inputs in the range N ∈ [0,3]

6406531502115. ✔ Time taken by both the software packages A and B is the same when N = 3.

6406531502116. ✖ Software package B is faster than Software package A for all N > 3.

Question Number : 77 Question Id : 640653451375 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4.5 Selectable Option : 0

Question Label : Multiple Select Question

Consider the following Python code snippet.

```python
from flask import Flask, abort, redirect, url_for, render_template
app = Flask(__name__)

data_science = ['ML-techniques','ML-foundations','ML-practices']
programming = ['Java','MAD-I', 'System-Commands', 'PDSA']

@app.route('/courses/<course>')
def find_course(course):
    if course in data_science:
        return f"<h2>Data Science course found, {course}!</h2>"
    elif course in programming:
        return f"<h2>Programming course found, {course}!</h2>"
    else:
        abort(401)

@app.errorhandler(401)
def page_not_found(error):
    return "<h2>No course found!<!h2>"

app.run()
```

If the above application is running locally on URL: http://127.0.0.1:5000, select the correct statement(s).

Options :

For the URL, "http://localhost:5000/courses/ML-techniques", the browser will render:

Programming course found, ML-techniques!

6406531502117. ✖

For the URL, "http://localhost:5000/courses/ML-practices", the browser will render:

Data Science course found, ML-practices!

6406531502118. ✔

For the URL, "http://localhost:5000/courses/MAD-2", the browser will render:

No course found!

6406531502119. ✔

6406531502120. ✖

For the URL, "http://localhost:5000/courses/Java", the browser will render:

Data Science course found, Java!

Question Number : 78 Question Id : 640653451379 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4.5 Selectable Option : 0

Question Label : Multiple Select Question

Consider the following two tables, user1 and logstable:

user1:

userid	name	password
U1	Mack	UabZa
U2	Jack	ZeFad
U3	Shaun	UsTZb

logstable:

logid	userid	name
1	U1	Playing
2	U2	Studying
3	U3	Swimming
4	U1	Running
5	U3	Studying
6	U2	Dancing

Which of the following query/queries will return the log ID and log name, which are created by user 'Shaun'?

Options :

6406531502133. ✔

```
select logid, logstable.name from user1 inner join logstable on
user1.userid = logstable.userid where user1.name = 'Shaun'
```

6406531502134. ✖

```
select logid, logstable.name from user1 natural join logstable where
user1.name = 'Shaun'
```

6406531502135. ✖

```
select logid, logstable.name from user1 inner join logstable on
user1.name = logstable.name where user1.name = 'Shaun'
```

6406531502136. ✔

```
select logid, logstable.name from user1, logstable  WHERE user1.userid
= logstable.userid and user1.name = 'Shaun'
```

Sub-Section Number :	7
Sub-Section Id :	64065364857
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 79 Question Id : 640653451345 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

Compute the octal representation of the binary number $(01000001)_2$.

Note: The answer must be an integer. For ex: If the octal representation is $(39)_8$, then you must write 39 only.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

101

Sub-Section Number :	8
Sub-Section Id :	64065364858
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653451360 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 : (80 to 81)

Question Label : Comprehension

Consider the following jinja2 template, and answer the given subquestions

```
from jinja2 import Template

temp = """
          Data science combines {{a}} abilities and competence in
          {{b}} and {{c}} to draw important insights from data.
       """

to_render = Template(temp)

out = to_render.render(data)
print(out)
```

Sub questions

Question Number : 80 Question Id : 640653451361 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:

```
data = { 'a': 'programming','b': 'mathematics','c': 'statistics',
'd': 'machine learning'}
```

Options :

6406531502073. ✔
```
Data science combines programming abilities and competence in
mathematics and statistics to draw important insights from data.
```

6406531502074. ✖
```
Data science combines programming abilities and competence in
mathematics and machine learning to draw important insights from data.
```

6406531502075. ✖
```
machine learning combines programming abilities and competence in
mathematics and statistics to draw important insights from data.
```

6406531502076. ✖
```
KeyError: 'd'
```

Question Number : 81 Question Id : 640653451362 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:

```
data = { 'b': 'mathematics','c': 'statistics', 'd': 'programming'}
```

Options :

6406531502077. ✖
```
Data science combines {{a}} abilities and competence in
mathematics and statistics to draw important insights from data.
```

6406531502078. ✔
```
Data science combines  abilities and competence in
mathematics and statistics to draw important insights from data.
```

6406531502079. ✖

```
Data science combines programming abilities and competence in
mathematics and statistics to draw important insights from data.
```

6406531502080. ✖

```
KeyError: 'a'
```

Sub-Section Number :	9
Sub-Section Id :	64065364859
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653451364 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 : (82 to 83)

Question Label : Comprehension

Consider the below model definitions, and answer the given subquestions.

Consider the following model classes “Movies” and “Producers” corresponding to tables “movies” and “producers”, respectively, in the SQLite database.

```
class Movies(db.Model):
    id = db.Column(db.Integer(), primary_key = True)
    movie_name = db.Column(db.String(50), nullable = False, unique = True)
    movie_year = db.Column(db.Integer, nullable = False)
    producers = db.relationship('Producer', backref = 'movie', secondary = 'groups')

class Producer(db.Model):
    id = db.Column(db.Integer(), primary_key = True)
    producer_name = db.Column(db.String(50), nullable = False, unique = True)
    productions = db.Column(db.Integer())

class Groups(db.Model):
    movie_id = db.Column(db.Integer(),db.ForeignKey('movies.id'), primary_key = True)
    prod_id = db.Column(db.Integer(),db.ForeignKey('producer.id'), primary_key = True)
```

Sub questions

Question Number : 82 Question Id : 640653451365 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

The tables “movies” and “producers” are related to each other by which of the following relationships?

Options :

6406531502085. ✖ One-to-one

6406531502086. ✖ One-to-many

6406531502087. ✖ Many-to-one

6406531502088. ✔ Many-to-Many

Question Number : 83 Question Id : 640653451366 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4.5 Selectable Option : 0

Question Label : Multiple Select Question

If an object “p1” that represents an existing record in the table “producer” is defined as `p1 = Producer.query.get(2)`, The correct way to create a new record in the “movies” table that is produced by the producer represented by object ‘p1’ using terminal is.

Options :

6406531502089. ✖

```
>>> mov = Movies(movie_name = 'The movie', movie_year = 2001, producers = p1)
>>> db.session.add(mov)
>>> db.session.commit()
```

6406531502090. ✖

```
>>> mov = Movies(movie_name = 'The movie', movie_year = 2001)
>>> p1.producers.append(mov)
>>> db.session.commit()
```

6406531502091. ✔

```
>>> mov = Movies(movie_name = 'The movie', movie_year = 2001)
>>> p1.movie.append(mov)
>>> db.session.commit()
```

6406531502092. ✔

```
>>> mov = Movies(movie_name = 'The movie', movie_year = 2001)
>>> mov.producers.append(p1)
>>> db.session.commit()
```

Sub-Section Number :	10
Sub-Section Id :	64065364860
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653451367 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 : (84 to 86)

Question Label : Comprehension

Consider the below program, and answer the given subquestions , if the application is running locally on URL: http://127.0.0.1:5000.

Consider the following resource created with help of flask-restful.

```
parser = reqparse.RequestParser()
parser.add_argument('employee_id')
parser.add_argument('employee_name')

r_fields = {"Name":fields.String(attribute = 'employee_name')}

class TestAPI(Resource):

#    ================================================
#                  GET-FUNCTION
#   ================================================
#   ================================================
#                  POST-FUNCTION
#   ================================================
    @marshal_with(r_fields)
    def put(self):
        this_emp = parser.parse_args()
        return this_emp

api.add_resource(TestAPI, "/api/v1", "/api/v1/<employee_id>")
```

Sub questions

Question Number : 84 Question Id : 640653451368 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 the curl request shown below.

```
curl http://127.0.0.1:5000/api/v1 -X GET -d "{\"employee_id\" : \"2003\",
\"employee_name\": \"Suresh\"}" -H "Content-Type: application/json"
```

retrieves the `employee_id` only with status `200 OK`, what will come in place of `GET-FUNCTION` in the code?

Options :

6406531502093. ✖

```
def get(self):
        return {'employee_Id': employee_id}
```

6406531502094. ✖

```
def get(self, employee_id):
        return {'employee_Id': employee_id}
```

6406531502095. ✔

```
def get(self):
        args = parser.parse_args()
        return {'Id_no.': args['employee_id']}
```

6406531502096. ✖

```
def get(self):
        args = parser.parse_args()
        return args
```

Question Number : 85 Question Id : 640653451369 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 the curl request shown below

```
curl http://127.0.0.1:5000/api/v1/5001 -X POST
```

retrieves the `employee_id` only with status `200 OK`, what will come in place of `POST-FUNCTION` in the code?

Options :

6406531502097. ✖

```
def post(self):
        return {'employee_Id': employee_id}
```

6406531502098. ✔

```
def post(self, employee_id):
        return {'employee_Id': employee_id}
```

6406531502099. ✖

```
def post(self):
        args = parser.parse_args()
        return {'Id_no.': args['employee_id']}
```

6406531502100. ✖

```
def post(self):
        args = parser.parse_args()
        return args
```

Question Number : 86 Question Id : 640653451370 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 response from the server for the request:

```
curl http://127.0.0.1:5000/api/v1 -X PUT -d "{\"employee_id\" : \"2003\",
\"employee_name\": \"Suresh\"}" -H "Content-Type: application/json"
```

Options :

6406531502101. ✖

```
{
    "employee_id": "2003",
    "employee_name": "Suresh"
}
```

6406531502102. ✖

```
{
    "employee_id": "2003"
}
```

6406531502103. ✖

```
{
    "employee_name": "Suresh"
}
```

None of these

6406531502104. ✔

Sub-Section Number :	11
Sub-Section Id :	64065364861
Question Shuffling Allowed :	No
Is Section Default? :	null

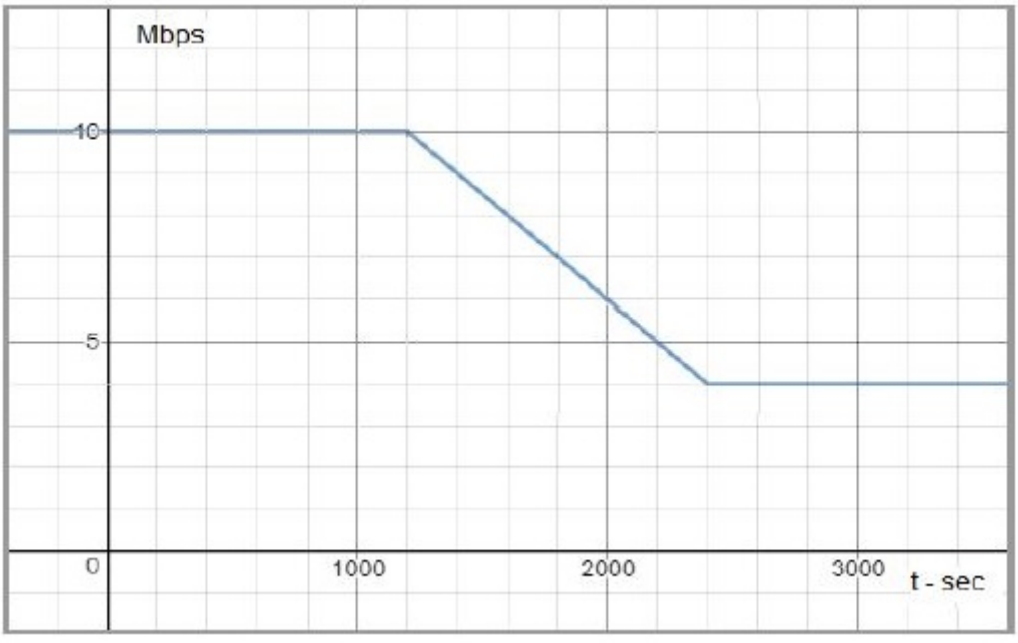
Question Id : 640653451371 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (87 to 88)

Question Label : Comprehension

Consider the below graph, and answer the given subquestions.

The bandwidth vs. time graph for a period of one hour between 12 noon to 1 p.m in the afternoon is shown below. [Use relations: 1 Byte = 8 bits, 1 GB = 1000 MB and so on.]



Sub questions

Question Number : 87 Question Id : 640653451372 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

What is the network bandwidth (in Mbps) of the network at exactly 12:30 pm?

Options :

6406531502105. ✖ 4

6406531502106. ✔ 7

6406531502107. ✖ 8

6406531502108. ✖ 10

Question Number : 88 Question Id : 640653451373 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 total amount of data (in GigaBytes) consumed by the only user connected to the network between 12:15 pm to 12:45 pm? [Assuming that the user is using the entire bandwidth from 12:15 p.m to 12:45 p.m]

Options :

6406531502109. ✖ 12.6

6406531502110. ✖ 1.26

6406531502111. ✖ 15.75

6406531502112. ✔ 1.575