Question Label : Multiple Choice Question

If we Increase the capacity of both edges `(h,i)` and `(i,j)` by 1, the maximum flow from s to t will increase by 1.

Options :

6406532733784. ✔ TRUE

6406532733785. ✖ FALSE

AppDev1

Section Id :	64065356694
Section Number :	9
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	32
Number of Questions to be attempted :	32
Section Marks :	100
Display Number Panel :	Yes
Section Negative Marks :	0
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 :	640653118928
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 252 Question Id : 640653816124 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 I (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 :

6406532733786. ✔ YES

6406532733787. ✖ NO

Sub-Section Number :	2
Sub-Section Id :	640653118929
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 253 Question Id : 640653816125 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 Python code snippet.

```
from string import Template as makeTemplate
from jinja2 import Template
import sys

var = sys.argv[0]

data = {"var1": "Data scientist", "var2": "programming",
        "var3":  "statistical", "var4": "insights"}

temp = "{{var1}} creates $var2 code with $var3 knowledge to create
{{var4}}."

if var == "1":
    temp = makeTemplate(temp)
    output = temp.substitute(data)
    print(output)
else:
    temp = Template(temp)
    output = temp.render(data)
    print(output)
```

What will be printed on the terminal for the command python app.py 1 2 ?

Options :

6406532733788. ✖
```
{{var1}} creates programming code with statistical knowledge to
create {{var4}}.
```

6406532733789. ✖
```
{{var1}} creates $var2 code with $var3 knowledge to create {{var4}}
```

6406532733790. ✖
```
Data scientist creates programming code with statistical knowledge to
create insights.
```

6406532733791. ✔
```
Data scientist creates $var2 code with $var3 knowledge to create
insights.
```

Sub-Section Number : 3

Sub-Section Id : 640653118930

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 254 Question Id : 640653816126 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 flask application running locally on http://127.0.0.1:5000 ?

```
from flask import Flask

app = Flask(__name__)

@app.route('/home/<string:url>')
def get_url_str(url):
    return "string "+url

@app.route('/home/<path:url>')
def get_url_pth(url):
    return "path "+url

app.run(debug = True)
```

Which of the following URLs will throw a 404 Not Found error?

Options :

6406532733792. ✖ http://127.0.0.1:5000/home/modules

6406532733793. ✔ http://127.0.0.1:5000/modules/chapters/one

6406532733794. ✖ http://127.0.0.1:5000/home/library/modules/chapters/one

6406532733795.

✖ None

Question Number : 255 Question Id : 640653816128 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 view function.

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

@app.route('/student', methods = ['GET', 'POST'])
def show_details():
    cred = request.args
    details = {
                'Stream': cred['dept'],
                'Roll': cred['roll'],
                'Course': cred['course']
            }
    return details

app.run()
```

If this flask app is running locally on http://127.0.0.1:5000, which of the following URLs will be handled by the controller correctly?

Options :

6406532733800. ✖ http://127.0.0.1:5000?dept=data_science&roll=cs1001&course=cs2003

6406532733801. ✔ http://127.0.0.1:5000/student?dept=data_science&roll=cs1001&course=cs2003

6406532733802. ✖ http://127.0.0.1:5000/data_science/cs1001/cs2003

6406532733803. ✖ http://127.0.0.1:5000/student/data_science/cs1001/cs2003

Question Number : 256 Question Id : 640653816141 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 is not a frontend framework?

Options :

6406532733848. ✖ Vue JS

6406532733849. ✖ React JS

6406532733850. ✔ Node JS

6406532733851. ✖ Angular JS

Question Number : 257 Question Id : 640653816147 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 and select the correct option:

Statement 1: In a database, an index can only be created on one column of a table.

Statement 2: Indexes cannot be created on columns which have duplicate values.

Options :

6406532733872. ✖ Statement 1 is true & statement 2 is false

6406532733873. ✖ Statement 2 is true & statement 1 is false

6406532733874. ✖ Both statements 1 and 2 are true

6406532733875. ✔ Both statements 1 and 2 are false

Question Number : 258 Question Id : 640653816157 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 type of service approaches from column A to their correct examples in column B.

	Column A		Column B
a	SaaS	1	Replit
b	PaaS	2	Office 365
c	IaaS	3	Amazon Web Services

Options :

6406532733912. ✖ a-2, b-3, c-1

6406532733913. ✔ a-2, b-1, c-3

6406532733914. ✖ a-1, b-2, c-3

6406532733915. ✖ a-1, b-3, c-2

Sub-Section Number : 4

Sub-Section Id : 640653118931

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 259 Question Id : 640653816129 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

In the code snippet given below, what should come in place of **code 1** and **code 2** such that one book can have multiple sections and the converse does not hold true?

```
from sqlalchemy import ForeignKey
from sqlalchemy import Integer, Column
from sqlalchemy.orm import DeclarativeBase
from sqlalchemy.orm import relationship

class Base(DeclarativeBase):
Pass

class Section(Base):
    __tablename__ = "section_table"
    id = Column(Integer, primary_key=True)
    # write your code 1 here

class Book(Base):
    __tablename__ = "book_table"
    id = Column(Integer, primary_key=True)
    # write your code 2 here
```

Options :

6406532733804. ✖

```
code 1: book_id=Column(Integer, ForeignKey("book_table.id"))
code 2: books = relationship("Section")
```

6406532733805. ✖

```
code 1: books = relationship("Section")
code 2: section_id=Column(Integer, ForeignKey("book_table.id"))
```

6406532733806. ✔

```
code 1: book_id=Column(Integer, ForeignKey("book_table.id"))
code 2: sections = relationship("Book")
```

6406532733807. ✖

```
code 1: books = relationship("Book")
code 2: section_id=Column(Integer, ForeignKey("section_table.id"))
```

Question Number : 260 Question Id : 640653816131 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 app and Jinja2 template.

app.py

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

@app.route('/')
def index():
  return render_template("index.html", data=['Harry', 'Karl', 'John',
'Jason', 'Ros'])

app.run()
```

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Macro</title>
</head>
<body>
    {% macro unordered_list(items)%}
        <ul>
        {% for item in items %}
            {% if item|length >= 5 %}
            <li>{{item}}</li>
            {% endif %}
        {% endfor %}
        </ul>
    {% endmacro %}
    {{ unordered_list(data) }}
</body>
</html>
```

If the flask app is running locally on `http://127.0.0.1:5000`. What will be the output on the browser for the base URL?

Options :

6406532733812. ✖

- Harry
- Karl
- John
- Jason
- Ros

6406532733813. ✖
- Karl
- John

6406532733814. ✔
- Harry
- Jason

6406532733815. ✖
- Karl
- John
- Ros

Question Number : 261 Question Id : 640653816136 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 types of testing with their functionality.

A. Regression testing	1. Beta Testing
B. User Acceptance testing	2. Considers internal functioning of the system
C. White Box Testing	3. Simulates actual user interaction, allows to script browser
D. System testing Automation	4. Type of testing that runs after every change to ensure that the change introduces no unintended breaks.

Which of the following is the correct matching?

Options :

6406532733828. ✖ A → 1, B → 2, C → 3, D → 4

6406532733829. ✖ A → 4, B → 3, C → 2, D → 1

6406532733830. ✔ A → 4, B → 1, C → 2, D → 3

6406532733831. ✖ A → 3, B → 2, C → 1, D → 4

Question Number : 262 Question Id : 640653816137 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 application.

```
from flask import Flask, render_template, request
app = Flask(__name__)

@app.route('/')
def square():
        val = request.args

        if val['num'] == '':
            return "<h1>Enter a valid number</h1>"
        elif val['num'].isalpha()==True:
            return "<h1>Invalid number</h1>"
        else:
            out = (int(val['num'])) * (val['num'])
            return f'<h1>{out}</h1>'

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

If this flask app is running locally on http://localhost:5000, what is the output for the URL http://localhost:5000/?num=4 ?

Options :

6406532733832. ✖ 4

6406532733833. ✖ 44

6406532733834. ✖ ValueError

6406532733835. ✔ 4444

Question Number : 263 Question Id : 640653816140 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 Python code snippet.

log.py

```
import logging
import sys

logging.basicConfig(level=logging.WARNING,
                    format='%(asctime)s - %(levelname)s - %(message)s')

def check_val(value):
    if value < 0:
        raise ValueError("Invalid value: Please enter a positive value.")
    else:
        logging.info("Value added: %s", value)

try:
    input_value = -int(sys.argv[1])
    check_val(input_value)
except ValueError as ve:
    logging.exception("Exception occurred: %s", str(ve))
```

What will be the output on the terminal for the command: `python log.py -12` ?

Options :

6406532733844. ✖

```
2023-08-14 21:01:05,684 - INFO - Value added: 12
```

6406532733845. ✖

```
2023-08-14 21:01:05,684 - WARNING - Value added: -12
```

6406532733846. ✖

```
Error: Exception occurred: Invalid value: Please enter a
positive value.
```

6406532733847. ✔ None.

Question Number : 264 Question Id : 640653816142 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 lens of an HDD can read data on the rotating disk with the speed of 42,000 bits per second. The disk is designed such that 600 bits pass under the lens for every revolution of the disk, what should be the maximum speed of disk in RPM so that the lens does not miss any data?

Options :

6406532733852. ✖ 70 RPM

6406532733853. ✖ 100 RPM

6406532733854. ✔ 4200 RPM

6406532733855. ✖ 6000 RPM

Question Number : 265 Question Id : 640653816143 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 python code snippet.

```
from string import Template

statement = "The $animal jumped over the $obstacle."

temp = Template(statement)

print(=== OUTPUT ===)
```

Which of the following statements, when substituted in place of `=== OUTPUT ===`, will throw a KeyError?

Options :

6406532733856. ✔

```
temp.substitute({"animal": "cat"})
```

6406532733857. ✖

```
temp.safe_substitute({"animal": "dog", "obstacle": "fence"})
```

6406532733858. ✖

```
temp.safe_substitute({"animal": "rabbit"})
```

6406532733859. ✖

```
temp.safe_substitute({"obstacle": "wall", "place": "park
town"})
```

Question Number : 266 Question Id : 640653816149 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 of the following Python code?

```
from jinja2 import Template
my_statement = Template("The special series is:{% for n in
range(1,15)%} {{n//3}}" "{% endfor %}")
out = my_statement.render()
print(out)
```

Options :

6406532733880. ✖ The special series is: 0 0 0 1 1 1 2 2 2 3 3 3 4 4 4

6406532733881. ✖ The special series is: 1 2 0 1 2 0 1 2 0 1 2 0 1 2

6406532733882. ✔ The special series is: 0 0 1 1 1 2 2 2 3 3 3 4 4 4

6406532733883. ✖ The special series is: 0.33 0.67 1.0 1.33 1.67 2.0 2.33 2.67 3.0 3.33 3.67 4.0 4.33 4.67

Question Number : 267 Question Id : 640653816150 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 that there are two HTML files.

i) index.html - Home page of the application
ii) login.html - Login page of the application

Which of the following code will navigate the user between **index.html** and **login.html**, and vice versa?

Options :

6406532733884. ✖

```
<!-- index.html contains->
<a src="index.html">Signin</a>

<!-- login.html contains ->
<a src="login.html">Home</a>
```

6406532733885. ✖

```
<!-- index.html contains ->
<a href="index.html">Signin</a>

<!-- login.html contains ->
<a href="login.html">Home</a>
```

```
<!-- index.html contains ->
<a src="login.html">Signin</a>

<!-- login.html contains ->
<a src="index.html">Home</a>
```

6406532733886. ✖

```
<!-- index.html contains ->
<a href="login.html">Signin</a>

<!-- login.html contains ->
<a href="index.html">Home</a>
```

6406532733887. ✔

Question Number : 268 Question Id : 640653816151 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

In an OpenAPI documentation, which field contains all the endpoints (routes) of the API?

Options :

6406532733888. ✔ paths

6406532733889. ✖ schema

6406532733890. ✖ info

6406532733891. ✖ responses

Question Number : 269 Question Id : 640653816155 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 below two data models **Author** and **Book** using SQLite database.

```
class Author(db.Model):
    id = db.Column(db.Integer, primary_key=True)
    name = db.Column(db.String)
    dob = db.Column(db.String)

class Book(db.Model):
    id = db.Column(db.Integer(), primary_key=True)
    title = db.Column(db.String())
    publisher = db.Column(db.String())
    written_by = db.Column(db.Integer(), db.foreign_key("author.id"),unique=True)
```

What kind of relationship exists between **Author** and **Book** classes?

Options :

6406532733904. ✔ One Book to one Author relationship

6406532733905. ✖ One Author to many Books relationship

6406532733906. ✖ Many Authors to one Book relationship

6406532733907. ✖ Many Books to many Author relationship

Sub-Section Number :	5
Sub-Section Id :	640653118932
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 270 Question Id : 640653816138 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 a function `func`, and a set of test cases given below.
Filename: `test_file.py`

```
import pytest
def func(x,y):
    out = x**2+y**2
    return out

class Test_class0():
    def test_case1(self):
        assert func(1,2) == 5

    def case_test2(self):
        assert func(2,3) == 13

    def case_test3(self):
        assert func(6,2) == 38

class Test_class1():
    def test_case1(self):
        assert func(5,2) == 29

    def case_test2(self):
        assert func(1,1) == 2
```

What will be the output on the terminal for the command below?
`pytest test_file.py -k Test_class`

Options :

6406532733836. ✖
```
== 1 failed, 4 passed in 0.17s ===
```

6406532733837. ✖
```
== 2 passed, 3 deselected in 0.17s ===
```

6406532733838. ✔
```
== 2 passed in 0.07s ===
```

6406532733839. ✖
```
 == 3 failed, 2 passed in 0.17s ===
```

Question Number : 271 Question Id : 640653816139 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 app.py, the html files, base.html and home.html residing in "templates" folder.

app.py

```
from flask import Flask, render_template
app = Flask(__name__)
@app.route('/')
def home():
      return render_template('home.html')
app.run(debug=True)
```

home.html

```
{% extends "base.html" %}
{% block content %}
<p>MAD I</p>
<span>MAD II</span>
<p>DBMS</p>
{% endblock %}
```

base.html

```
<!DOCTYPE html>
<html lang="en">
<head>
      <title>IITM</title>
</head>
<body>
      <h2 style="color: violet;"> Diploma Courses </h2>
      {% block content %}
      {% endblock %}
</body>
</html>
```

What will be the rendered output for base URL if flask app is running locally on http://localhost:5000 ?

Options :

MAD I

MAD II

6406532733840. ✖ DBMS

Diploma Courses

MAD I

MAD II

6406532733841. ✔ DBMS

Diploma Courses

MAD I

6406532733842. ✖ MAD II DBMS

MAD I

6406532733843. ✖ MAD II DBMS

Question Number : 272 Question Id : 640653816144 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 below Flask Restful API code snippet:

app.py

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

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

data_info = [
              {"name": "IITM", "mail": "abc@study.iitm.ac.in"}
            ]

class Data(Resource):
   def get(self):
       return data_info

   def post(self):
       name = request.json["name"]
       mail = request.json["mail"]
       data = {}
       data["name"] = name
       data["mail"] = mail
       data_info.append(data)
       return "Saved data", 200
api.add_resource(Data, "/")
if __name__ == "__main__":
   app.run()
```

Assume that above **app.py** is running on http://127.0.0.1:5000/ . What will be the outputs of the below sequence of **CURL** commands:

i)

```
curl -X POST -H "Content-Type: application/json" -H "Accept-Type:
application/json" -d "{\"name\":\"Javed\",\"mail\":\"javed@study.iitm.ac.in\"}"
"http://127.0.0.1:5000/"
```

ii)

```
curl -X GET "http://127.0.0.1:5000"
```

Options :

6406532733860. ✔

i) "Saved data"
ii)

```
[
    {
        "name": "IITM",
        "mail": "abc@study.iitm.ac.in"
    },
    {
        "name": "Javed",
        "mail": "javed@study.iitm.ac.in"
    }
]
```

i)

```
[
    {
        "name": "IITM",
        "mail": "abc@study.iitm.ac.in"
    },
    {
        "name": "Javed",
        "mail": "javed@study.iitm.ac.in"
    }
]
```

6406532733861. ✖ ii) "Saved data"

6406532733862. ✖

i)

```
[
    {
        "name": "Javed",
        "mail": "javed@study.iitm.ac.in"
    }
]
```

ii)

```
[
    {
        "name": "IITM",
        "mail": "abc@study.iitm.ac.in"
    }
]
```

i)

```
[
    {
        "name": "IITM",
        "mail": "abc@study.iitm.ac.in"
    }
]
```

ii)

```
[
    {
        "name": "Javed",
        "mail": "javed@study.iitm.ac.in"
    }
]
```

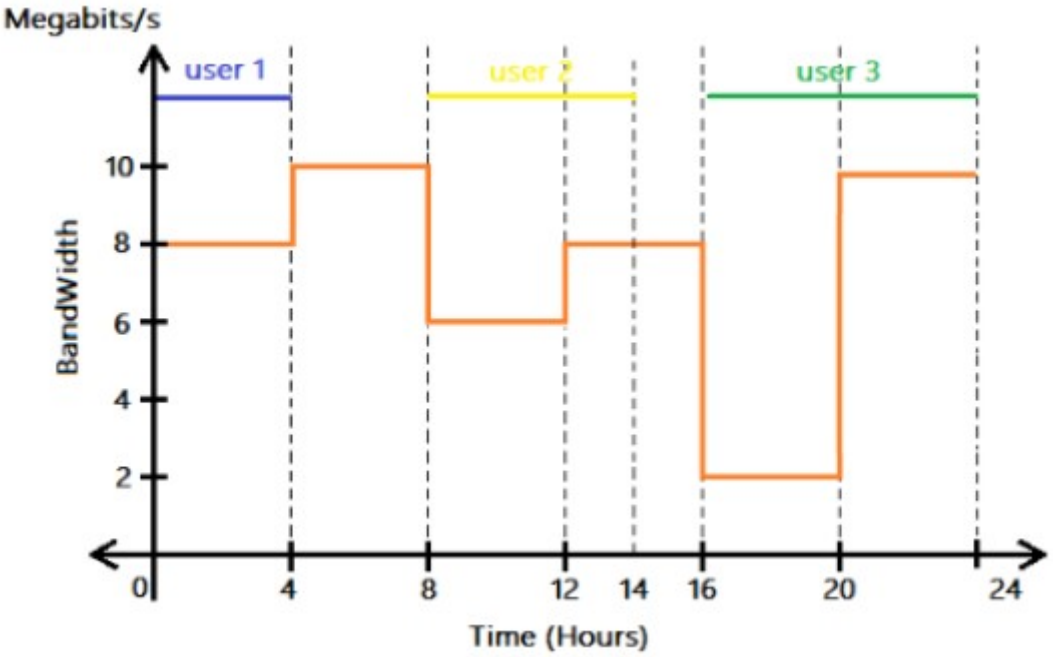
6406532733863. ✖

Question Number : 273 Question Id : 640653816146 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 graph that represents the variation in bandwidth of a network for an entire day (24 hours). Three users were connected to the network at three different times of the day. What is the total data consumed in GigaBytes by all the users in 24 hrs?



Options :

6406532733868. ✖ 633.6 GB

6406532733869. ✔ 54 GB

6406532733870. ✖ 120 GB

6406532733871. ✖ 432GB

Question Number : 274 Question Id : 640653816148 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

An HTML code and CSS code is given below. Which of the following correctly represents its rendered output?

CSS Code:

```
#one{color: blue;}
.two{color: red !important;}
#two{color: green}
#three{color: green;}
```

HTML Code:

```
<!DOCTYPE html>
<html>
<head>
    <title>Document</title>
    <link href="style.css" rel="stylesheet">
    <style>
        body{font-weight: bold;}
        p{color: violet !important ;}
    </style>
</head>
<body>
    <span id="one">Content 1</span>
    <p class="two" id="two" >Content 2</p>
    <span id="three">Content 3</span>
</body>
</html>
```

Options :

6406532733876. ✖ Content 1 Content 2 Content 3

6406532733877. ✖ Content 1 Content 2 Content 3

6406532733878. ✖ Content 1 Content 2 Content 3

Content 1

Content 2

6406532733879. ✔ Content 3

Question Number : 275 Question Id : 640653816152 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 below two python files code snippets ***app.py*** and ***test_app_route.py.***

app.py

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

@app.route("/greet/<string:name>")
def home(name):
   return "Hello, " + name

if __name__ == "__main__":
   app.run()
```

test_app_route.py:

```
import pytest, requests

@pytest.fixture
def get_response():
   resp = requests.get("http://127.0.0.1:5000/greet/IITM")
   return resp

def test_response(get_response):
   assert get_response.text == "Hello, IITM"
```

Assume that ***app.py*** and ***test_app_route.py*** are running on two different terminals. And also all required modules are installed. Which of the below statement(s) are True?

i) Executing the command **pytest test_app_route.py** on the terminal returns
========== 1 passed ==========

ii) Executing the command **pytest test_app_route.py** on the terminal returns
========== 1 failed ==========

iii) Executing the command **pytest test_app_route.py** on the terminal returns
========== 1 selected, 1 passed ==========

iv) Executing the command **pytest test_app_route.py** on the terminal returns
========== 1 deselected ==========

Options :

6406532733892. ✔ Only statement i is correct

6406532733893. ✖ Only statement ii is correct

6406532733894. ✖ Statements i and iii are correct

6406532733895. ✖ Statements ii and iv are correct

Sub-Section Number : 6

Sub-Section Id : 640653118933

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 276 Question Id : 640653816130 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Max. Selectable Options : 0

Question Label : Multiple Select Question

Which of the following is true about the term “stateful” in the client-server model?

Options :

6406532733808. ✔ The server responds to the client based on the previous state.

6406532733809. ✔ The server uses FTP protocol to respond to the client's request.

6406532733810. ✖ Network performance may reduce because of the large amount of data sent out repetitively.

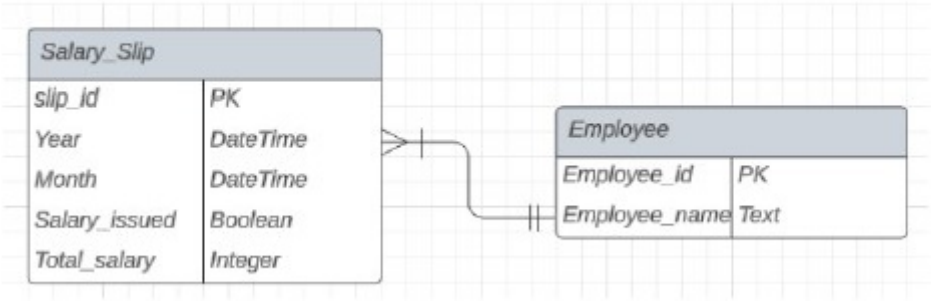
6406532733811. ✖ Server is not required to maintain any state of client or session during transactions between client and server.

Question Number : 277 Question Id : 640653816132 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Max. Selectable Options : 0

Question Label : Multiple Select Question

What can be inferred from the Entity-Relationship Diagram below:



Options :

6406532733816. ✖ An employee can exist without having any salary slips

6406532733817. ✖ A salary slip can exist without belonging to any employee

6406532733818. ✔ An employee needs to have at least one salary slip

6406532733819. ✔ A salary slip must belong to one and only one employee

Question Number : 278 Question Id : 640653816156 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Max. Selectable Options : 0

Question Label : Multiple Select Question

What is the name of the branch that we start with when we create a new git repository?

Options :

6406532733908. ✔ main

6406532733909. ✔ master

6406532733910. ✖ develop

6406532733911. ✖ feature

Sub-Section Number :	7
Sub-Section Id :	640653118934
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 279 Question Id : 640653816153 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

Which of the statements are true?

Options :

6406532733896. ✖ HTML5 is based on SGML

6406532733897. ✔ XHTML is based on XML which in turn is based on SGML

6406532733898. ✖ HTML5 is not backwards compatible with older versions of HTML

6406532733899. ✔ XML is both human and machine readable

Question Number : 280 Question Id : 640653816154 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

Consider a client ‘C’ and a server ‘S’, separated by distance ‘D’ are connected by a fictitious medium in which the speed of light is ‘v’ m/sec. If ‘N’ is the number of consecutive requests that can made in a second by the client ‘C’ (i.e A new request can be made only after receiving the response from the previous request.), Which of the following changes would halve the number ‘N’?

Options :

6406532733900. ✔ A change of medium where the speed of light is v/2 m/sec.

6406532733901. ✖ A change of medium where the speed of light is 2v m/sec.

6406532733902. ✖ Reduce the distance between C and S from D to D/2.

6406532733903. ✔ Increase the distance between C and S from D to 2D.

Sub-Section Number : 8

Sub-Section Id : 640653118935

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 281 Question Id : 640653816127 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 Max. Selectable Options : 0

Question Label : Multiple Select Question

Consider the following flask app. Given that test_request_context() allows text to be printed on the terminal, which of the following statements is/are correct?

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

@app.route('/library')
def home():
    return 'Select your course!'

@app.route('/student/<username>/<roll>')
def dashboard(username):
    return f'{username}\'s dashboard'

with app.test_request_context():
    #== print statement ==#
```

Options :

6406532733796. ✖ If `#== print statement ==#` is replaced by: print(url_for('home', user = "mad1_cs2003")), the output on the terminal will be; `/library/mad1_cs2003`.

6406532733797. ✔ If `#== print statement ==#` is replaced by: print(url_for('home', user = "mad1_cs2003")), the output on the terminal will be; `/library?user=mad1_cs2003`.

6406532733798. ✖ If `#== print statement ==#` is replaced by:
print(url_for('dashboard', username = "mad1", roll = "cs2003", term = "jan2024")),
the output on the terminal will be;
`/student/mad1/cs2003/jan2024`.

6406532733799. ✔ If `#== print statement ==#` is replaced by:
print(url_for('dashboard', username = "mad1", roll = "cs2003", term = "jan2024")),
the output on the terminal will be;
`/student/mad1/cs2003?term=jan2024`.

Question Number : 282 Question Id : 640653816145 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 Max. Selectable Options : 0

Question Label : Multiple Select Question

Consider the following function to be tested and test functions given in the Python code snippet below.

test_file.py

```
import pytest

def square(x):
    sum = 0
    for counter in range(x):
      sum += x
      return sum

@pytest.mark.marker1
def testcase_1():
    assert square(10) == 100

@pytest.mark.marker2
def testcase_2():
    assert square(4) == 4

@pytest.mark.marker3
def testcase_3():
    assert square(5) == 25

@pytest.mark.marker4
def testcase_4():
    assert square(6) == 6
```

On running this file on the terminal using pytest, the summary of the output is;

```
========= 1 passed, 3 deselected, 4 warnings in 0.04s =========
```

What command will result into the outcome given above?

Options :

6406532733864. ✔ `pytest test_file.py -m marker4`

6406532733865. ✖ `pytest test_file.py -m marker1`

6406532733866. ✔

```
pytest test_file.py -m marker2
```

6406532733867. ✖

```
pytest test_file.py -m marker3
```

Sub-Section Number :	9
Sub-Section Id :	640653118936
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653816133 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 : (283 to 284)

Question Label : Comprehension

Consider the following Python code snippet.

file.py

```
import sys
courses = {
           1: "App Dev I",
           2: "App Dev II",
           3: "App Dev III",
           4: "DevOps"
          }
if courses[int(sys.argv[2])] in "App Dev III":
    i = 1
    while i <= int(sys.argv[2]):
        print("course found",courses[i])
        i+=1
else:
    print("No course found!")
```

Based on the above data, answer the given subquestions.

Sub questions

Question Number : 283 Question Id : 640653816134 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 output on the terminal for the command

```
python file.py course 4?
```

Options :

6406532733820. ✖

```
course found App Dev I
course found App Dev II
course found App Dev III
course found DevOps
```

6406532733821. ✖

```
course found App Dev I
course found App Dev II
course found App Dev III
```

6406532733822. ✔

```
No course found!
```

6406532733823. ✖

```
IndexError: list index out of range
```

Question Number : 284 Question Id : 640653816135 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 output on the terminal for the command `python file.py course 1`?

Options :

6406532733824. ✖

```
No course found!
```

6406532733825. ✔

```
course found App Dev I
```

6406532733826. ✖

```
course found App Dev I
course found App Dev II
course found App Dev III
course found DevOps
```

6406532733827. ✖

```
IndexError: list index out of range
```

AppDev2

Section Id :	64065356695
Section Number :	10
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	33
Number of Questions to be attempted :	33
Section Marks :	100
Display Number Panel :	Yes

Section Negative Marks :	0
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 :	640653118937
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 285 Question Id : 640653816158 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 II (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 :

6406532733916. ✔ YES

6406532733917. ✖ NO

Sub-Section Number :	2
Sub-Section Id :	640653118938
Question Shuffling Allowed :	Yes
Is Section Default? :	null