Consider an undirected graph with 5 vertices {A, B, C, D, E}. DFS is executed on this graph with the start vertex as `A`. Let $push\_time(v)$ represent the sequence number when the vertex 'v' is first visited (i.e. pushed onto the stack) and let $pop\_time(v)$ represent the sequence number when vertex 'v' is last visited (i.e. popped out of stack).
For the given values of pop_time and $push\_time$ of all the vertices, find the number of components in the graph

$push\_time(A) = 1$, $pop\_time(A) = 6$
$push\_time(B) = 2$, $pop\_time(B) = 5$
$push\_time(C) = 3$, $pop\_time(C) = 4$
$push\_time(D) = 7$, $pop\_time(D) = 10$
$push\_time(E) = 8$, $pop\_time(E) = 9$

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

2

AppDev-1

Section Id :	64065321950
Section Number :	7
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	17
Number of Questions to be attempted :	17
Section Marks :	50
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 : 64065349209

Question Shuffling Allowed : No

Question Number : 105 Question Id : 640653346902 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 "MODERN APPLICATION DEVELOPMENT 1"

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 :

6406531153186. ✔ YES

6406531153187. ✖ NO

Sub-Section Number : 2

Sub-Section Id : 64065349210

Question Shuffling Allowed : Yes

Question Number : 106 Question Id : 640653346903 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 statement is true about MVC architecture?

Options :

6406531153188. ✖ The view redirects the incoming request to model.

6406531153189. ✖ In MVC architecture, the model defines the business-logic layer.

6406531153190. ✔ The controller passes data model information to view.

6406531153191. ✖ It is not possible to share a view across multiple controllers.

Question Number : 107 Question Id : 640653346908 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

The hexadecimal representation of the number 5457_8 is _____ .

Options :

6406531153208. ✖ A2F

6406531153209. ✖ B1F

6406531153210. ✔ B2F

6406531153211. ✖ C1E

Question Number : 108 Question Id : 640653346912 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 a file consisting of 2000 alphanumeric characters including spaces. How much would be the total occupied space in bits, assuming UCS-4 is used?

Options :

6406531153224. ✔ 64000 bits

6406531153225. ✖ 32000 bits

6406531153226. ✖ 24000 bits

6406531153227. ✖ 12000 bits

Question Number : 109 Question Id : 640653346913 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

Choose the correct internal CSS that sets the body background color to green and the heading color of the text to red.

Options :

6406531153228. ✖

```
<style>
  body {
    background-color:"green";
  }
  h1 {
    color:"blue";
  }
</style>
```

6406531153229. ✔

```
<style>
  body {
    background-color:"green";
  }
  h1 {
    color:"red";
  }
</style>
```

6406531153230. ✖

```
<style>
  body {
    background-color:"blue";
  }
  h1 {
    color:"red";
  }
</style>
```

6406531153231. ✖ None of these

Sub-Section Number : 3

Sub-Section Id : 64065349211

Question Shuffling Allowed : Yes

Question Number : 110 Question Id : 640653346904 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 HTML code below.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8"/>
    <style>
      body{text-align: center}
      p{font-size: 30px;font-style: italic;color: black;}
      .blue{color: green;}
      .red{color: blue;}
      .green{color: red;}
      #myId{color: grey;}
    </style>
  </head>
  <body>
    <div>
      <h2>Welcome to IIT</h2>
      <p class="blue red green">Paragraph 1</p>
      <p class="red blue green" id="myId">Paragraph 2</p>
      <p class="green red blue">Paragraph 3 </p>
    </div>
  </body>
</html>
```

How will the browser render the above given HTML file?

Options :

6406531153192. ✔

Welcome to IIT

Paragraph 1

Paragraph 2

Paragraph 3

Welcome to IIT

Paragraph 1

Paragraph 2

6406531153193. ✖ *Paragraph 3*

Welcome to IIT

Paragraph 1

Paragraph 2

6406531153194. ✖ *Paragraph 3*

Welcome to IIT

Paragraph 1

Paragraph 2

6406531153195. ✖ *Paragraph 3*

Question Number : 111 Question Id : 640653346906 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.

filename: code.py

```
import sys
my_args = sys.argv

print("The python file name is:", my_args[1])
print(f"My username is: {my_args[3]}{my_args[4]}")
```

What will be the output on console if the command given is:

```
python code.py output.py Appdev Michael 2003 1003
```

Options :

6406531153200. ✖
```
The python file name is: code.py
My username is: Michael1003
```

6406531153201. ✖
```
The python file name is: code.py
My username is: Michael2003
```

6406531153202. ✖
```
The python file name is: output.py
My username is: Michael1003
```

6406531153203. ✔
```
The python file name is: output.py
My username is: Michael2003
```

Question Number : 112 Question Id : 640653346907 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 PyHTML program.

```
from pyhtml import *
def items(ctx):
  for title, page in [("coffee", "/drink.html"),
  ("kitkat", "/chocolate.html"),
  ("good day", "/biscuit.html")]:
    yield li(a(href=page)(title))

t = html(head(title("Grocery")), body(ol(items)))
print(t.render())
```

What will be the output of the above program?

Options :

6406531153204. ✖

```
<!DOCTYPE html>
<html>
  <head>
    <title>
      Grocery
    </title>
  </head>
  <body>
    <ul>
      <li>
        <a href="/biscuit.html">
          good day
        </a>
      </li>
      <li>
        <a href="/chocolate.html">
          kitkat
        </a>
      </li>
      <li>
        <a href="/drink.html">
          coffee
        </a>
      </li>
    </ul>
  </body>
 </html>
```

6406531153205.

```
<!DOCTYPE html>
<html>
  <head>
    <title>
      Grocery
    </title>
  </head>
  <body>
    <ul>
      <li>
        <a href="/drink.html">
          coffee
        </a>
      </li>
      <li>
        <a href="/chocolate.html">
          kitkat
        </a>
      </li>
      <li>
        <a href="/biscuit.html">
          good day
        </a>
      </li>
    </ul>
  </body>
</html>
```

6406531153206. ✔

```
<!DOCTYPE html>
<html>
  <head>
    <title>
      Grocery
    </title>
  </head>
  <body>
    <ol>
      <li>
        <a href="/drink.html">
          coffee
        </a>
      </li>
      <li>
        <a href="/chocolate.html">
          kitkat
        </a>
      </li>
      <li>
        <a href="/biscuit.html">
          good day
        </a>
      </li>
    </ol>
  </body>
</html>
```

6406531153207. ✖ None of these

Question Number : 113 Question Id : 640653346909 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

Annie and Curly took Database and Networks courses. Bella took Compiler and Python courses and Deva took Compiler and Database courses. Which of the following list of tuples correctly represents the relationship between names and courses.
names = {0: 'Annie', 1: 'Bella', 2: 'Curly', 3: 'Deva'}
courses = {0: 'Database', 1: 'Compiler', 2: 'Networks', 3: 'Python'}

Options :

6406531153212. ✔ rels = [(names[0], courses[0]), (names[2], courses[0]), (names[0], courses[2]), (names[2], courses[2]), (names[3], courses[0]), (names[3], courses[1]), (names[1], courses[1]), (names[1], courses[3])]

6406531153213. ✖ rels = [(names[2], courses[0]), (names[3], courses[0]), (names[2], courses[2]), (names[3], courses[2]), (names[0], courses[0]), (names[0], courses[1]), (names[2], courses[1]), (names[2], courses[3])]

6406531153214. ✖ rels = [(0, 1), (2,0), (0,2), (2,2), (3,0), (2,1), (1,1), (1,3)]

6406531153215. ✖ rels = [(1, 1), (2,2), (0,0), (2,3), (3,1), (2,4), (4,4), (1,4)]

Question Number : 114 Question Id : 640653346910 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 tables 'users' and 'book' stored in SQLite database.

```
Table: users
Id    Name    Age
1      Vinu    25
2      Manu    30
3      Somu    15
4      Ram     20

Table: book
Id    Bookname    Username
1      C++          Somu
2      Database     Vinu
3      C            Manu
4      sqlite       Ram
```

What will be the output of the following SQL query?

```
SELECT b.Bookname, u.Age FROM user as u, Book as b
WHERE b.Username = u.Name
```

Options :

6406531153216. ✖

Bookname	Username
C++	Somu
Database	Vinu
C	Manu
sqlite	Ram

6406531153217. ✖

Bookname	Age
sqlite	25
C	30
Database	15
C++	20

6406531153218. ✖

Bookname	Age
Database	20
C	15
C++	30
sqlite	25

6406531153219. ✔

Bookname	Age
Database	25
C	30
C++	15
sqlite	20

Question Number : 115 Question Id : 640653346911 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 code.

```
from jinja2 import Template
template = """
           {% for i in range(2) %}
           {{user[i]}}'s marks are
           {{mark[i]}}
           {% endfor %}
           """
user = { 0: "Balu", 1: "Kala"}
mark = [[30,40,56,78],[25,67,80,90]]
x = Template(template)
print(x.render(user = user, mark = mark))
```

What will be the output of above program?

Options :

6406531153220. ✖
```
0's marks are
[30, 40, 56, 78]

1's marks are
[25, 67, 80, 90]
```

6406531153221. ✖
```
Balu's marks are
[30, 40, 56, 78]

Kala's marks are
[30, 40, 56, 78]
```

6406531153222. ✔
```
Balu's marks are
[30, 40, 56, 78]

Kala's marks are
[25, 67, 80, 90]
```

6406531153223. ✖
```
Balu's marks are
[25, 67, 80, 90]

Kala's marks are
[30, 40, 56, 78]
```

Question Number : 116 Question Id : 640653346917 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

For a network bandwidth of 8 Gbps, what should be the size of each request if 5000 such requests are to be sent over the network per second? [**Use these relations:** 1 Byte = 8 bits, 1 KB = 1000 Bytes, 1 MB = 1000 KBs and so on.]

Options :

6406531153244. ✖ 1.6 KB

6406531153245. ✔ 200 KB

6406531153246. ✖ 1.6 MB

6406531153247. ✖ 200 MB

Sub-Section Number :	4
Sub-Section Id :	64065349212
Question Shuffling Allowed :	Yes

Question Number : 117 Question Id : 640653346905 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Select Question

Which of the following statements is/are true about an HTML 5 document?

Options :

6406531153196. ✔ <!DOCTYPE> declaration represents that a given HTML file is HTML5 compliant.

6406531153197. ✖ We cannot create HTML pages without <head> and <body> tags.

6406531153198. ✔ It is possible to render HTML files without .html extension.

6406531153199. ✖ An HTML file will not be rendered if any of its non-self-closing tag is left open.

Sub-Section Number : 5

Sub-Section Id : 64065349213

Question Shuffling Allowed : Yes

Question Number : 118 Question Id : 640653346914 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

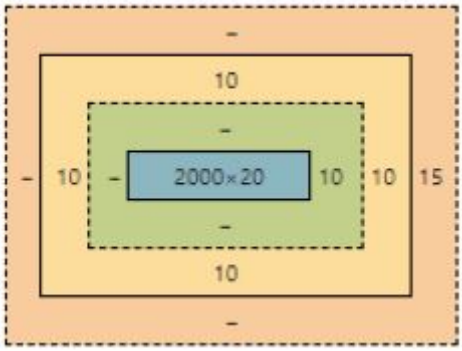
Consider the following HTML document with an embedded style sheet.

```
<!DOCTYPE html>
<html>
    <head>
        <title>Quiz 1</title>
        <style type="text/css">
            div{
                padding-left: 10px;
                margin-right: 15px;
                border-style: solid;
                border-width: 5px;
                width: 2000px;
                height: 20px;
                }
        </style>
    </head>
    <body>
        <div>My first Div element</div>
    </body>
</html>
```

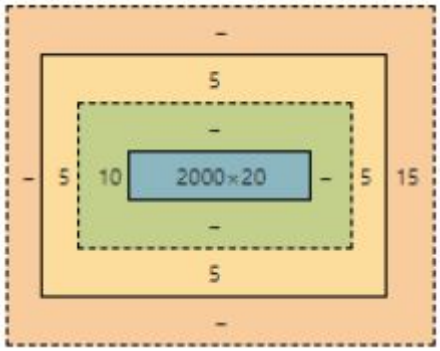
Which of the following figures correctly represents the box model of the above HTML document?

Options :

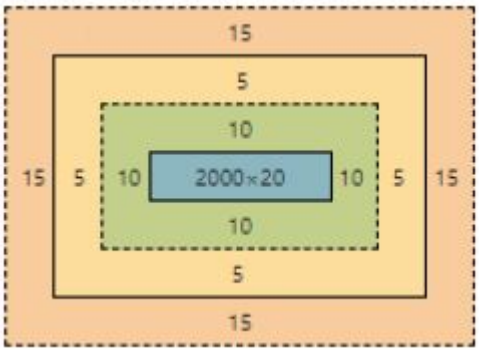
6406531153232. ✖



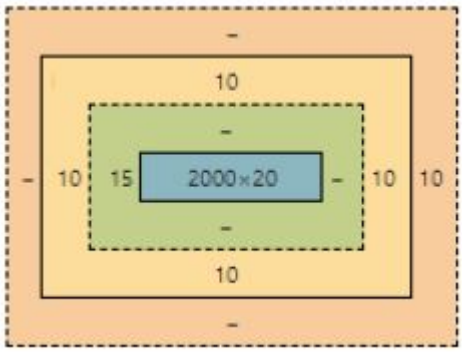
6406531153233. ✔



6406531153234. ✖



6406531153235. ✖



Question Number : 119 Question Id : 640653346915 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

Config_1 = {1:"red",2:"blue",3:"green",4:"yellow"}

Config_2 = {1:"pink",2:"orange",3:"brown",4:"darkblue"}

test_temp = """
                <!DOCTYPE html>
                <html>
                    <head>
                        <style type="text/css">
                            *{
                                margin: 0px;
                                width: 253px;
                                }
                            div{
                                margin: 10px;
                                padding: 20px;
                                border-style: solid;
                                border-width: 10px;
                                font-size: 30px;
                                color: {{Config_1[1]}};
                                background-color: {{Config_2[1]}};
                                border-color: {{Config_2[4]}};
                                }
                        </style>
                        <title>Quiz 1</title>
                    </head>
                    <body>
                        <div>
                            My first Div element
                        </div>
                    </body>
                    </html>
            """

output = Template(test_temp)
print(output.render(Config_1 = Config_1, Config_2 = Config_2))
```

How will the browser render the HTML file generated by the above Python code?

Options :

6406531153236. ✖

6406531153237. ✖

6406531153238. ✔

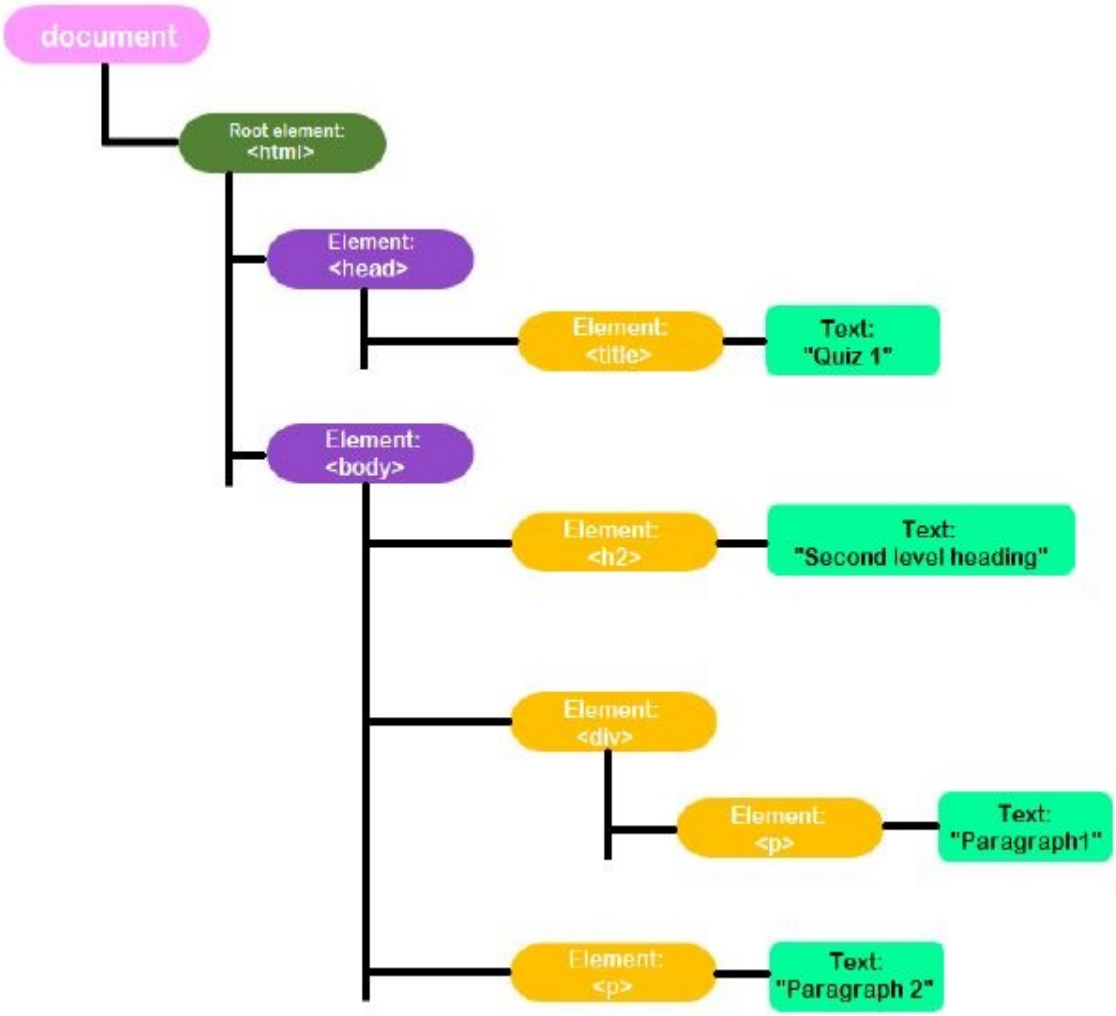
6406531153239. ✖

Question Number : 120 Question Id : 640653346916 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 DOM structure given below.



If an HTML document is to be programmatically created using Pyhtml whose DOM structure is exactly the same as the one given above, which of the following Pyhtml code will correctly create the document?

Options :

```
from pyhtml import *
my_html = html(head(title("Quiz 1"),
                    body(h2("Second level heading"),
                         div(p("Paragraph1")),
                         p("Paragraph2")
                         )
                        )
                   )
output = my_html.render()
print(output)
```

6406531153240. ✖

6406531153241. ✖

```
from pyhtml import *
my_html = html(head(title("Quiz 1")),
               body(h2("Second level heading"),
               div(p("Paragraph1"),
                   p("Paragraph2")
                  ))
              )
output = my_html.render()
print(output)
```

6406531153242. ✖

```
from pyhtml import *
my_html = html(head(title("Quiz 1")),
                    body(h2("Second level heading"),
                    div("This is my first div"),
                    p("Paragraph1"),
                    p("Paragraph2")
                        )
                   )
output = my_html.render()
print(output)
```

6406531153243. ✔

```
from pyhtml import *
my_html = html(head(title("Quiz 1")),
                    body(h2("Second level heading"),
                         div(p("Paragraph1")),
                         p("Paragraph2")
                         )
                   )
output = my_html.render()
print(output)
```

Question Number : 121 Question Id : 640653346918 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 client which is located 6000 kilometers from the server makes a request through the cable. Suddenly after the request reaches the server, the cable breaks and the response is now to be sent to the client via air with the help of repeaters which added a delay of 75 milliseconds. How

long will the client have to wait before receiving the response? [**Note:** the speed of light on cable is 2×10^8 m/sec and that in air is 3×10^8 m/sec.]

Options :

6406531153248. ✖ 50 milliseconds

6406531153249. ✖ 135 milliseconds

6406531153250. ✔ 125 milliseconds

6406531153251. ✖ 115 milliseconds

MLF

Section Id :	64065321951
Section Number :	8
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	15
Number of Questions to be attempted :	15
Section Marks :	50
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 :	64065349214
Question Shuffling Allowed :	No

Question Number : 122 Question Id : 640653346919 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0