

Generation Google Scholarship (APAC) Online Challenge Experience

- Difficulty Level : [Medium](#)
- Last Updated : 26 Apr, 2021

I had applied for an APAC scholarship in March 2021 through their Google Career Page and I got a mail that there will be an Online Challenge from 9th April to 10th April. In the challenge, there were two sections designed with multiple-choice questions (1) **General Cognitive Ability** and (2) **Role Related Knowledge** both have to be completed within 60 minutes.

There was a total of 14 Questions from General Cognitive Ability including Section 1 and Section 2. Section 1 comprised **Problem Solving & Analytical Reasoning** and Section 2 comprised **General Cognitive Ability**.

These are the sample questions that came in Section 1 \xe2\x80\x93 Problem Solving & Analytical Reasoning.

1. If in a certain code language all the letters of the Alphabet with their positions corresponding to prime number values are coded as 5 and the remaining values are coded as 3, then what will be the code for the word \xe2\x80\x9cRESOURCE\xe2\x80\x9d in the code language?

Options:

- a) 33553355
- b) 35533355
- c) 35353535
- d) 33553555

2. Rajesh has four red balls, nine blue balls, and six yellow balls. The price of each red ball is \$2, the price of each blue ball is \$3, and each yellow ball is \$4. Then what will be the average price of all the balls together?

Options:

- a) \$5
- b) \$4
- c) \$3
- d) \$2

3. Find out the missing term in the series.

34 , 42 , 58 , 82 , 114 , 154 , ? , 258

Options:

- a) 250
- b) 202
- c) 201
- d) 204

4. Payson is thrice as fast as Amen at completing tasks. They both pick up a task together and complete it in 5 days. How many days will Amen take to do it all alone?

Options:

- a) 20 days

- b) 25 days
- c) 10 days
- d) 15 days

These are the sample questions that came in Section 2 \xe2\x80\x93 General Cognitive Ability.

1. State whether the following is a Fact, an Interface, a Judgement, or an Opinion.
So does that mean they didn't make it to the interview?

Options:

- a) Interface
- b) Judgement
- c) Opinion
- d) Fact

2. Given below are statements followed by two conclusions. Assume the statements are true, even if they contradict commonly known facts, and determine the conclusions that logically follow.

Statements:

I. All artists are educated.

II. James is educated.

Conclusions:

I. All artists are James.

II. James may be an artist.

Options:

- a) Only Conclusion I.
- b) Neither Conclusion I nor Conclusion II.
- c) Only Conclusion II.
- d) Both Conclusion I and Conclusion II.

3. Given below are sentences, which when arranged logically, form a meaningful sentence.
Arrange them sequentially.

P. and stopping them from

Q. illiteracy is a problem

R. leading a fruitful life

S. plaguing a lot of people

Options:

- a) Q, R, P, S
- b) Q, S, P, R
- c) P, S, Q, R
- d) P, R, Q, S

4. Which of the following sentences best develops or supports the argument given below?

Argument: A student in a class has three paint brushes. No one else in the class has three paint brushes.

Options:

- a) Some students have more than three paint brushes
- b) Every Student in the class has paint brushes
- c) Only one student in the class has exactly three paint brushes

d) All the students in the class have three paint brushes

There was a total of 25 Questions from **Role Related Knowledge** there were 4 Sections. Section 1 was having **C programming**, Section 2 was **C++ programming**, Section 3, and Section 4 was **Data Structures and Algorithms, Computer Fundamentals**.

These are the few sample Question that came in Section 1 \xe2\x80\x93 C Programming.

1. Consider the following expression-

$$x = 5 * 5 / 2 + 2 + 2 - 4 + 3 / 1 + 2$$

What will be the result obtained after evaluating the above expression in C language?

Options:

- a) 17
- b) 10
- c) None of the mentioned options
- d) 3

2. Find the Odd one out.

Options:

- a) Character
- b) Integer
- c) Array
- d) Real

These are the few sample questions that came in Section 2 \xe2\x80\x93 C++ Programming.

1. Consider the C++ program given below:

C++

```
#include <iostream>
using namespace std;
\xc2\xa0\xc2\xa0
int main() {
\xc2\xa0\xc2\xa0
\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0int x = 1;
\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0int *p;
\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0p=&x
\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0cout << *p << endl;
\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0
}
```

What will be the output of the above program, if it is given that the address of x and p is 1024 and 2048 respectively?

Options:

- a) 1
- b) 2048
- c) Compile error
- d) 1024

Note: There were many Questions that came in both Section 1 and Section 2 where we have to guess the output of the program.

2. Sam was writing a program in C++. At many places, he used pointers to access the heap memory, but he has a habit of non Deallocating space once the pointer is no longer needed. Which of the following types of pointer error is he most likely to get?
- Options:
- a) Memory leak
 - b) Uninitialized pointer error
 - c) Invalid pointer error
 - d) None of the mentioned options

These are the few sample questions that came in Section 3 \xe2\x80\x93 Data Structures and Algorithms.

1. Consider an array representation of circular queue $Q = (_, 313, 1221, 121, 212, _, _, _, _)$. What is the maximum number of times the enqueue operation can be performed, after which an overflow condition will occur?
- Options:
- a) 9
 - b) 6
 - c) 7
 - d) 5
2. Consider a connected planar graph, G with $V = (P, Q, R, S, T, U, V, W, X, Y, Z, L, M, N, O)$. The degree of each vertex is two. Into how many regions does graph G split the plane?
- Options:
- a) 5
 - b) 2
 - c) 3
 - d) 4
3. Consider the following pseudo code:
- ```
Node* root = NULL
insert (root, 10)
insert (root, 20)
insert (root, 15)
insert (root, 40)
```
- It is given that Node represents the node of a binary search tree. What will be the post-order traversal of the Binary Search Tree after the above operations are performed?
- Options:
- a) 40, 10, 15, 20
  - b) 40, 20, 10, 15
  - c) 15, 40, 20, 10
  - d) None of the mentioned options
4. Consider a directed Graph  $G_1$  with 4 nodes  $W, X, Y$ , and  $Z$ . The adjacency lists of the nodes are given below:
- $W: Z$   
 $X: W$   
 $Y: W$   
 $Z: X, Y$
- Identify the correct statements.
- Options:
- a) In degree of  $W$  is 2
  - b) Out degree of  $W$  is 1
  - c)  $G_1$  is strongly connected graph
  - d) None of the mentioned options

## These are the few sample questions that came in Section 4 \xe2\x80\x93 Computer Fundamentals.

1. In Windows 10, you have to enable the use of Windows features such as the Start Menu, Settings, and File explorer in your local language. Which of the given can be accessed for the same?  
Options:  
a) Local experience packs  
b) Desktop backgrounds  
c) Windows themes  
d) None of the mentioned options.
2. If you are using a hub, then it would be on which layer of the OSI model?  
Options:  
a) Application Layer  
b) Data link Layer  
c) Physical Layer  
d) Session Layer

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