면접 운영 방법

○ 면접 순서 및 시간

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○ 면접 문항수
- 경영계열 : 영어 1문제, 수학 2문제,

○ 면접 준비실
- 소요시간 : 약15분
- 본교에서 제공하는 연습장과 필기구 사용가능(준비실에서 회수처리)
  ※ 면접준비실 문제는 문제의 일부분이 제공되지 않을 수 있음

○ 면접실
- 제시문제 : 영어 1문제, 수학 2문제 풀이
- 소요시간 : 약15분
- 필요에 따라 칠판 사용 가능

유의사항
○ 본 기초수학능력 구술면접 모의문제는 문제의 유형을 안내하기 위하여 제공
○ 본 모의문제는 실제 문제 난이도와 차이날 수 있음
Read the following passage.

(A) For the past few decades, the trend of "going global" has transformed dynamics in world economy and culture, some for the better and some for the worse. Jobs and services are moving from country to country with the speed of a computer connection. During the 1980s and 90s, many factory jobs in America were lost when its companies moved their production sites to developing countries. Now jobs in services are disappearing due to "outsourcing". Experts believe that three million jobs left the United States for India during the period of 2005-2010. Thanks to the Internet, American companies outsourced Indian workers to replace their own country people.

(B) India is a country of many (a) ________. Although some two hundred million Indians live on less than one dollar a day, India also has one of the world’s fastest growing economies. It is not difficult to see water buffaloes and sharp-dressed office workers share the streets with buses and cars in Indian cities full of skyscrapers, hotels, nightclubs, and restaurants with western foods on the menu. This contradictory scene may not be too strange to Indians, since it traces back to their history. Indian Renaissance emphasized the need to recognize the country’s own culture while ushering in an age of modernity. In a staggering pluralistic society with various religions and local languages, India’s culture tended to become tolerant, accommodating, open-minded to differences. While receiving education in English in the country, Indians have continuously been noticed overseas, particularly in American universities, in the list of renowned award nominees. Indians account for 23 percent of all NASA scientists, 26 percent of the doctors in the U.S. The CEOs of world's largest bank Citicorp and soft drink giant Pepsi are from India.

(C) Most striking is the country's giant strides in information technology and outsourcing industries which have contributed to the booming economy. Behind this growth is the development of fast telecommunications along with (b) ________ labor. For the Western companies hiring Indian workers, thus, there are two important advantages to outsourcing. They can pay the Indians far less than American workers for the same position that they offer. In addition, with many English-speaking, highly educated citizens, India has no shortage of qualified people.
The outsourced Indian workers receive special training from their American supervisors. In addition to the regular job training, they also learn the western way of life and even take American names, such as Tom and Jane, to seem less foreign to their customers. Time differences between India and America make call-center employees in India to work all night long instead of during the day. Few of them, however, complain about these changes. Low in American standard, but still their salary is good for Indians. And many young people see their outsourced jobs as a way to move up in Indian society, where promotion often depends on the family background rather than their (c) __________ in the job.

[문제 1] Fill in the blanks (a), (b) and (c) with words appropriate to the context.

[문제 2] Read the following paragraph.

It all began in the late 1990s when American companies hired Indian technicians to fix computer software problems. From then on, outsourcing had become an important part of the global economy. Today, if you call a company like Dell Computer for customer service you will probably talk to someone working in Bangalore or Hyderabad. Dell’s main offices are in Texas, but it hires Indians at 10% of an American’s salary. These days, many computer companies, banks and airlines hire Indian workers. Even some hospitals hire Indian experts to study medical X-rays and e-mail the results back.

질문: Where in the passage would the paragraph be most appropriately placed? Explain why.

[문제 3] The following is the remark from the author of the passage.

"Outsourcing being a fact of life now, jobs from the West are now traveling beyond India to other countries in Asia. Unlike India, however, we may see troublesome roads ahead in such a country as China which is full of different cultural values and a variety of dialects."
질문: What would be the differences in cultural values and language uses between India and China? Discuss the differences in relation to their effects on outsourcing.

[문제 4] Korea and other South-East Asian countries have experienced some changes similar to what's going on between the U.S. and India. How would such changes affect your life (1) as a consumer and (2) as a businessman? Discuss positive and negative aspects in each case.

<table>
<thead>
<tr>
<th></th>
<th>Positive Aspects</th>
<th>Negative Aspects</th>
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<tbody>
<tr>
<td>As a Consumer</td>
<td></td>
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<tr>
<td>As a Businessman</td>
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[문제1]
다음과 같이 주어지는 급수 \( S_n, \ n=1,2,\cdots \)을 생각하자.
\[
S_n = \frac{1}{-2+6i} + \frac{1}{2+10i} + \frac{1}{8+14i} + \cdots + \frac{1}{n^2+n-4+2(2n+1)i}
\]
아래의 과정들을 통하여 \( S_n \)을 간단히 나타내고자 한다.

1. 다음의 다항식을 인수분해 하시오.
\[
x^2+x+y^2+(2x+1)y
\]

2. 1의 결과를 이용하여 다음 방정식을 만족하는 복소수 \( z \)를 구하시오.
\[
z^2+z-4+2(2z+1)i=0
\]

3. 1과 2의 결과를 이용하여 \( S_n \)을 \( n \)에 대해서 간단히 표현하시오.

4. \( S_n, \ n=1,2,\cdots \)이 실수 혹은 순허수가 되는 \( n \)이 존재하는가? 그러한 \( n \)을 모두 구하시오.
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[문제 2]

두 함수 \( f(x) \)와 \( g(x) \)에 대해서 함수 \( f(x) \lor g(x) \)와 \( f(x) \land g(x) \)를 다음과 같이 정의한다.
(i) \( f(x) \land g(x) = \begin{cases} g(x), f(x) \geq g(x) \\ f(x), f(x) < g(x) \end{cases} \)
(ii) \( f(x) \lor g(x) = \begin{cases} f(x), f(x) \geq g(x) \\ g(x), f(x) < g(x) \end{cases} \)

1. 점 \( x=x_0 \)에서 임의의 함수 \( f(x) \)에 대한 미분계수의 정의를 기술하여라.

2. 미분계수의 정의를 이용하여 점 \( x=1 \)에서 함수 \( h(x) = x^2 \land x^3 \)의 미분가능성을 조사하여라.

3. 다음과 같은 두 조건을 모두 만족하는 이차함수 \( r(x) \)를 구하여라.
   (i) \( r(0)=0, \ r'(0)=m \) (단, \( m < 0 \)), \( r''(0)=2 \).
   (ii) \( \int_{-1}^{1} (x^2 \lor r(x)) \, dx = 1 \).