BRAC UNIVERSITY
Sample Question for Undergraduate Programs
Admission Test

Read the admission instruction to identify the sections relevant to you. The sample questions indicate the pattern not the difficulty level of the questions that will appear in the admission test.

The test consists of SIX SECTIONS. Section A, Section C, Section D, and Section E contain MCQs. Section B contains a question on English composition and Section F contains questions on Drawing and Paragraph Writing.

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<td>ARCHITECTURE</td>
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For SECTIONS A, C, D, and E give all your answers on the Answer Script by filling in the circles on the answer letter of your choice, using a black ballpoint pen or 2B pencil. **Filling more than one circle will be considered as a wrong answer.**

Example: If the correct answer for a question is A, your answer booklet should be marked as shown below:

Sample answer:

![Sample Answer](image)

For SECTION B and F write your answer in the space provided in the Test Booklet, using a ballpoint or fountain pen.

**Note that section C, D, E and F will be available in both versions: English and Bangla.**
SAMPLE QUESTIONS:

SECTION-A: ENGLISH LANGUAGE

Complete the sentences using the options given below. Select the best option

1. Work should be a meaningful and ____________ part of one’s life.
   (A) interested  (B) productive  (C) exported  (D) sufficient

2. The concert was ________________ by an hour.
   (A) cancelled  (B) delayed  (C) postponed  (D) presented

Read the following text and fill in the blanks with the most suitable answer from the box below:

Tsunami

When an earthquake under the sea is very strong, it can generate a (1)................. wall of water called a tsunami. The powerful movements send enormous (2)....................... of energy up through the ocean, moving (3)......................... amounts of water. The water advances (4)......................... the shore in giant waves that can rise to the height of a 10 story building. In December 2004, people around the Indian Ocean (5)........................ by helplessly as the world’s deadliest ever tsunami arrived on land. (6)........................ people within the area had any warning. The tsunami (7)......................... cities and took thousands of lives.

1 A terrifying  B fearing  C fright  D thoughtful
2 A numbers  B many  C amounts  D times
3 A few  B huge  C high  D long
4 A between  B for  C forward  D toward
5 A stand  B stood  C wait  D shout
6 A So  B Much  C Little  D Few
7 A destroyed  B destruct  C damage  D broken

Reading Comprehension

There are two groups of the people who have difficulty in writing – those who cannot write at all, and those who have to, often for a living. In between there is a huge middle-ground that forms the core of the audience for "Write On". This group can be broken down into two sections. The first comprises those who can write a bit but feel they have nothing to say and therefore rarely write anything. The other group has lots to say but has no clear idea about how to write it down and so does not bother either.

So, how does a television program encourage first-time writers? One of the best methods of getting people to write anything down is to encourage them to talk about themselves. When they talk about their own experiences the words come rushing out. The talker is freed from the worries of correct spelling and grammar – that can come later.
Many people have reacted enthusiastically to the possibility of a television series designed to encourage and improve writing skills. They include students who attend classes and teachers and volunteer tutors who hold them. And there has been enthusiasm too from those who would like to improve those writing tasks that they are often required to do in their daily lives. This television series is intended for all these groups; the students who want guidance and encouragement, the tutors who would like more ideas to help the students, the rest of us who just want to be better at writing.

Some people do not write because
(A) they are not sure how to (B) they never say anything (C) they can only write a little (D) they talk too much

SECTION- B: ENGLISH COMPOSITION

Write a composition, not exceeding 200 words, expressing your opinion about the topic below.

Students in the secondary level of Bangladesh must learn two more languages (such as Arabic, Chinese, French, etc.,) other than Bengali and English, to get high level jobs in overseas countries. Give your opinions regarding this.

SECTION- C: MATHEMATICS

1. In the following figure BD=4cm, DC=25 cm. The line AD is perpendicular to BC and AD=10 cm. Find \( \angle \)BAC. (নীচের চিত্রে BD= ৪ সেমিমিটার, CD= ২৫ সেমিমিটার। AD লম্ব এবং AD= ১০ সেমিমিটার। কোণ \( \angle \)BAC এর মান কত?
)

\( \text{A) } 90^\circ \quad \text{(B) } 60^\circ \quad \text{(C) } 100^\circ \quad \text{(D) } 115^\circ \quad \text{(E) } 30^\circ \)

2. In 1985 the population of town A and town B were the same. From 1985 to 1995 the population of town A increased by 60% while the population of town B decreased by 60. What percentage of the population of town A was the population of town B in 1995? (১৯৮৫ সালে শহর A এর জনসংখ্যা এবং শহর B এর জনসংখ্যা সমান ছিল। ১৯৮৫-১৯৯৫ সময়ের মধ্যে শহর A এর জনসংখ্যা ৬০% পায় এবং শহর B এর জনসংখ্যা ৬০% হ্রাস পায়। ১৯৯৫ সালে শহর A এর জনসংখ্যা শহর B এর জনসংখ্যাকে কত ভাগ?
)

(A) 60 (B) 75 (C) 25 (D) 45 (E) 30
SECTION- D: HIGHER MATHEMATICS AND PHYSICS

1. A cube four cm on each side is painted blue and cut into 64 one cm cubes. How many one-cm cubes are painted blue on exactly two faces? (4 সেমি দৈর্ঘ্যের ধারাবিশিষ্ট একটি ঘনকের চারপাশে নীল রং দিয়ে সেটিকে কর্তন করে সমান ৬৪টি ছোট ঘনকে ভাল করা হল। ১ সেমি দৈর্ঘ্যের ধারাবিশিষ্ট ছোট ঘনকের কতগুলোর শুধুমাত্র দুটি তল নীল রংবিশিষ্ট হবে?)
(A) 8   (B) 12   (C) 16   (D) 24   (E) 32

2. What is the probability of getting 80% or more of the questions correct on a 10-question true-false exam merely by guessing? (একটি পরীক্ষায় ১০টি বাক্স আছে। কোন বাক্স সত্য হল 'সত্য' এবং মিথ্যা হল 'মিথ্যা'লিখিতে হয়। শুধুমাত্র আন্দাজ করে ৮০% বা তার চেয়ে বেশি সত্যি উজ্বল নেবার সম্ভাবনা কত?
(A) $\frac{1}{16}$   (B) $\frac{5}{32}$   (C) $\frac{3}{16}$   (D) $\frac{7}{32}$   (E) $\frac{7}{128}$

3. Express in radians the period of the graph of the equation $y = \frac{1}{3}(\cos^2 x - \sin^2 x)$. \( y = \frac{1}{3}(\cos^2 x - \sin^2 x) \)
(A) $\frac{\pi}{2}$   (B) $\pi$   (C) $\frac{3\pi}{2}$   (D) $2\pi$   (E) $3\pi$

4. If $x = 1 - e^t$ and $y = 1 + e^{-t}$, find $y$ in terms of $x$. (যদি $x = 1 - e^t$ এবং $y = 1 + e^{-t}$ হয়, তবে $y$ কে $x$ দ্বারা প্রকাশ করা)
(A) $y = x$   (B) $y = 1 - x$   (C) $y = \frac{x-1}{x}$   (D) $y = \frac{x}{x+1}$   (E) $y = \frac{2-x}{1-x}$

SECTION- E: BIOLOGY & CHEMISTRY

Multiple Choice Question

1. A hydrocarbon contains, by mass, 82.7% carbon and 17.3% hydrogen. The molecular formula of the hydrocarbon is _____. (একটি হাইড্রোজাকার্বনে ৮২.৭% কার্বন এবং ১৭.৩% হাইড্রোজেন আছে।হাইড্রোজাকার্বনটির আণবিক সংশ্লেষ হচে ______________)
A. CH₃
B. C₂H₆
C. C₂H₅
D. C₄H₁₀

2. In a DNA double helix, the two strands are held together by _____. (ডি.এন.এ ডবল হেলিক স্ফূরক সংযুক্ত হওয়ায় কারণ হচে ______________)
A. covalent bonds between bases (২টি ভেন এর মধ্যে অবস্থিত সমূজোলী বন্ধন)
B. covalent bonds between sugar molecules (২টি শক্রক অনুর মধ্যে অবস্থিত সমূজোলী বন্ধন)
C. hydrogen bonds between bases (২টি ভেন এর মধ্যে অবস্থিত হাইড্রোজেন বন্ধন)
D. hydrogen bonds between sugar molecules (২টি শক্রক অনুর মধ্যে অবস্থিত হাইড্রোজেন বন্ধন)
SECTION- F: DRAWING

Question 1.
Drawing to access imagination, free hand sketching ability, proportioning etc. The question will not directly ask the candidate to draw something i.e. a human figure at work or a table lamp but a sentence or two will be written and the candidate asked to interpret its meaning through a drawing in the space provided.

Examples:  
There is festively in the air
A storm is gathering

Marks: 40

Question 2.
Paragraph Writing. Candidates will be asked to write a small paragraph in English or Bangla. The question will be directed towards a description of or comments about a particular situation.

Examples: A brief narration about a Village market
Activities at a traffic intersection

Marks: 20

Candidates will have to pass each section (F) separately to qualify; Pass mark is 50% of total mark.