

**Green University of Bangladesh**  
Faculty of Science and Engineering  
Admission Test, Sample Question

**Full Marks: 50**

**Time: 45 minutes**

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**Part A: English (11 Questions, 05 +10 = 15 Marks)**

**Writing**

1. Write a paragraph of ten sentences on **Bangladesh**.

**Grammar****Tense/Subject –verb agreement**

1. Yesterday I \_\_\_\_\_ to see you.  
a. go                      b. have gone                      c. gone                      d. went
2. It is better to \_\_\_\_\_ like a lion than a mouse.  
a. is living                      b. living                      c. lives                      d. live
3. Have you ever \_\_\_\_\_ to Cox's Bazar?  
a. being                      b. be                      c. been                      d. have been

**Preposition**

1. He congratulated you \_\_\_\_\_ your promotion.  
a. in                      b. on                      c. of                      d. for
2. I am fond \_\_\_\_\_ reading novel.  
a. of                      b. by                      c. on                      d. with
3. The land was divided \_\_\_\_\_ the two sisters.  
a. among                      b. between                      c. with                      d. for

**WH Question**

1. \_\_\_\_\_ do you live?  
a. Where                      b. What                      c. Who                      d. When
2. \_\_\_\_\_ is this?  
a. Who                      b. Where                      c. What                      d. When
3. \_\_\_\_\_ is the bank?  
a. Where                      b. Who                      c. When                      d. Whom
4. \_\_\_\_\_ is your name?  
a. What                      b. Where                      c. When                      d. Who

**Part B: General Knowledge (10 Questions, 10 Marks)**

1. What is the old name of Dhaka?  
(a) Jahangirnagar (c) Islampur  
(b) Sonargoan (d) Dacca
2. Which country is the first acceptor of Bangladesh?  
(a) India (c) Srilank  
(b) Bhutan (d) Russia (e) None of these
3. Mujibnagar is situated at?  
(a) Satkhira (c) Meherpur  
(b) Chuadunga (d) Nababgang
4. Which area of Bangladesh was the first to free from Pakistan army in 1971?  
(a) Kustia (c) Jessore and Sylhet  
(b) Rongpur and Dinajpur (d) Mymensingh
5. What is name of the Malaysian currency?  
(a) Dinar (c) Ringgit  
(b) Rial (d) Rupiah
6. World population day is observed on?  
(a) 11 July (c) 10 December  
(b) 17 October (d) 21 June
7. Where is the 'Uttara Gonovhoban' situated?  
(a) Rajshai (c) Naogoan  
(b) Bogra (d) Nator
8. 'Chandra Deep' is the ancient name of which area of Bangladesh?  
(a) Comilla (c) Chittagong  
(b) Barisal (d) Dhaka
9. Who was the designer of the central Shahid Minar of Bangladesh?  
(a) Nazrul Islam (c) Lui-I-Khan  
(b) Hamidur Rahman (d) Hasima Reza
10. Which of the following is a sculpture by artist Nitun Kundu?  
(a) Shabash Bangladesh (c) Shoparjito Shadhinota  
(b) Oprajeyo Bangla (d) Roktim Nithor

**Part C: Physics (10 Questions, 10 Marks)**

1. Time taken to complete a wave is termed as
  - a) span
  - b) time period
  - c) life
  - d) duration
  
2. Sound is a good example of.....waves.
  - a) transverse
  - b) longitudinal
  - c) polarized
  - d) electromagnetic
  
3. Nuclear sizes are expressed in a unit named
  - a) Fermi
  - b) angstrom
  - c) newton
  - d) tesla
  
4. Light year is a unit of.....
  - a) Time
  - b) distance
  - c) Light
  - d) intensity of light
  
5. Light from the Sun reaches us in nearly
  - a) 2 minutes
  - b) 4 minutes
  - c) 6 minutes
  - d) 8 minutes
  
6. Pa (Pascal) is the unit for.....
  - a) thrust
  - b) pressure
  - c) frequency
  - d) conductivity
  
7. Metals are good conductors of electricity because
  - a) they contain free electrons
  - b) the atoms are lightly packed
  - c) they have high melting point
  - d) All of the above
  
8. If two bodies of different masses, initially at rest, are acted upon by the same force for the same time, then the both bodies acquire the same
  - a) velocity
  - b) momentum
  - c) acceleration
  - d) kinetic energy
  
9. Pick out the scalar quantity
  - a) force
  - b) pressure
  - c) velocity
  - d) acceleration
  
10. Rectifiers are used to convert
  - a) Direct current to Alternating current
  - b) Alternating current to Direct current
  - c) high voltage to low voltage
  - d) low voltage to high voltage

**Part D: Mathematics (10 Questions, 10 marks)**

1. The root of the equation  $x^3 - 30x^2 + 108x - 104 = 0$   
(a) no real roots; (b) exactly one root; (c) three distinct real roots; (d) a repeated root.
2. For what values of real number the quadratic equation  $x^2 + ax + a = 1$  have real roots?  
(a)  $a \neq 2$  (b)  $a > 2$  (c)  $a = 2$  (d)  $a < 2$
3. Let  $N = 2^k \times 4^m \times 8^n$  then  $N$  will be a square number whenever  
(a)  $k$  is even (b)  $k + n$  is odd (c)  $k$  is odd (d)  $k + n$  is even
4. If  $3x + y = 19$  and  $x + 3y = 1$ . Find the value of  $2x + 2y$   
(a) 20 (b) 18 (c) 11 (d) 10
5. If  $(x + 1)^2 = 4$  and  $(x - 1)^2 = 16$  what is the value of  $x$   
(a) -3 (b) -1 (c) 1 (d) 3
6. If  $x = 1 - e^t$  and  $y = 1 + e^t$  Find  $y$  in terms of  $x$   
(a)  $y = x$  (b)  $y = 2 - x$  (c)  $y = \frac{x-1}{x}$  (d)  $y = \frac{x}{x+1}$
7. If  $a + b = y$  what is  $a^2 + 2ab + b^2$   
(a)  $y$  (b)  $2y$  (c)  $y^2$  (d)  $2y^2$
8. If the average (arithmetic mean of the numbers)  $x, 2x, 4x$  is 14 what is the value of  $x$ ?  
(a) 2 (b) 6 (c) 7 (d) 10
9. If  $(a - b)^2 = (a + b)^2$  what is the value of  $ab$ ?  
(a) -4 (b) -2 (c) 0 (d) 2
10. Which is the largest of the following four numbers?  
(a)  $\log_2 3$  (b)  $\log_4 8$  (c)  $\log_3 2$  (d)  $\log_5 10$

**Part E: Chemistry (05 Questions, 05 Marks)**

1. Which acid is present in lemon?
  - a) Marlic Acid
  - b) Citric Acid
  - c) Lactic Acid
  - d) Tartaric Acid
2. The term "PVC" used in plastic industry stands for?
  - a) Polyvinyl chloride
  - b) Polyvinyl carbonate
  - c) Phosphor vanadium chloride
  - d) Polyvinyl alcohol
3. Inert gases are-
  - a) Monoatomic
  - b) Diatomic
  - c) Triatomic
  - d) None of the above
4. Which of the following is present in Nail Polish Remover?
  - a) Benzene
  - b) Acetic Acid
  - c) Acetone
  - d) Petroleum Ether
5. The isotopes of an element differ in-
  - a) Number of neutrons
  - b) Atomic weight
  - c) Number of protons
  - d) Number of electrons