

# SAMPLE TEST PAPER

**Bachelor of Engineering (Electrical), BE(EE)**  
**Bachelor of Engineering (Civil), BE(CE)**  
**Bachelor of Engineering (Mechanical), BE(ME)**

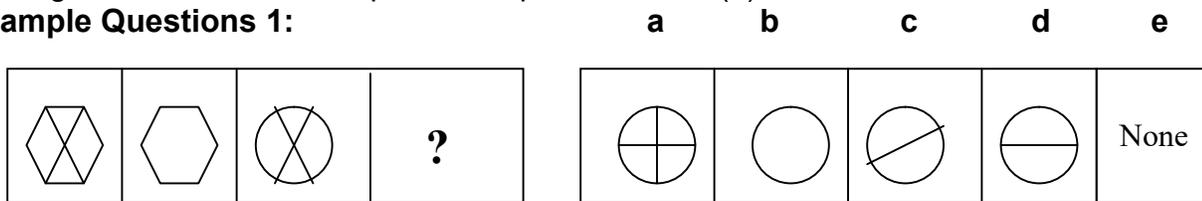
**Bachelor of Science (Computer Science), BS(CS)**  
**Bachelor of Science (Information Technology), BS(IT)**  
**Bachelor of Science (Software Engineering), BS(SE)**

## SECTION A: REASONING

There are 25 questions in this part consisting of sections that deal with Illustrative Reasoning, Numerical Reasoning and Verbal Reasoning. Answer as many question as you can.

**Illustrative Reasoning:** There are 10 questions in this section like the ones shown on this page. Each row is a problem. The row consists of three figures on the left-hand side followed by a question mark. There are four figures on the right hand side marked A, B, C & D. The three figures on the left make an argument. You are required to find out which one of the figures on the right hand side would replace the question mark (?)

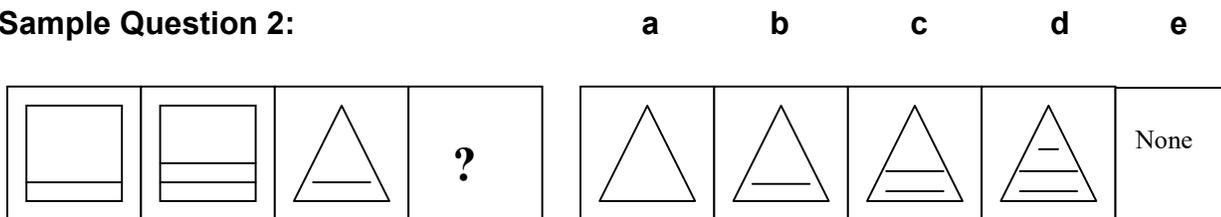
**Sample Questions 1:**



Note that the first figure on the left has a hexagon with a cross in it. In the second figure, the cross has been removed from the hexagon. The third figure has a circle with a cross in it. Hence, following the same rule, the fourth figure should have a circle without a cross in it. The figure that matches this rule is **b**.

Therefore, blacken  of Question 1 in Section A of the Response Sheet.

**Sample Question 2:**



The first figure has a rectangle and one line in it. In the second figure, the number of lines is two. The third figure has a triangle and one line in it. Hence, following the same rule, the fourth figure should be a triangle with two lines in it. The figure that matches this rule is **c**.

Therefore, blacken  of Question 2 in Section A of the Response Sheet.

**Numerical Reasoning:** There are 10 questions in this section that require you to study a series of numbers. Work out the pattern, and identify the next number in series.

**Sample Questions 3:** 51 48 45 42 39 36 ?

- a: 32
- b: 31
- c: 34
- d: 33
- e: None

*Note that numbers are decreasing by 3. Subtract 3 from 36 to obtain the correct answer, which is 33.*

*Therefore, blacken  d of Question 3 in Section A of the Response Sheet.*

**Sample Question 4:** 30 900 20 400 10 ?

- a: 110
- b: 100
- c: 0
- d: 240
- e: None

*In this example, the second number (900) is the square of the first number (30), the fourth number (400) is the square of the third number (20). Therefore the sixth number must be the square of the fifth number (10). The correct answer is 100.*

*Therefore, blacken  b of Question 4 in Section A of the Response Sheet.*

**Verbal Reasoning:** There are 5 questions in this section. Each question is based on a set of conditions. For each question, select the most appropriate answer.

**Sample Question 5:** There are 4 balls in a game. They are colored green, blue, yellow and red. Select two balls, remembering that you can't have blue with green or yellow. Also keep in mind that you can't have red with yellow or blue.

- a: Green and blue
- b: Yellow and red
- c: Red and blue
- d: Red and green
- e: None

*Since you can't have green & blue or red & blue, or red & blue, the most appropriate selection will be red & green.*

*Therefore, blacken  d of Question 5 in Section A of the Response Sheet.*

**Sample Question 6:** There are seven days in a week. If today is Monday, what day of the week was day before yesterday?

- a: Wednesday
- b: Saturday
- c: Friday
- d: Thursday
- e: None

*If today is Monday, then yesterday was Sunday, and the day before yesterday was Saturday. Therefore, blacken  b of Question 6 in Section A of the Response Sheet.*

## **SECTION B: PHYSICS**

**There are 15 questions in this part. Answer as many questions as you can.**

**Sample Question 31:** Which one of the following electromagnetic radiation has the shortest wave length?

- a: Infrared rays
- b: X-rays
- c: Ultraviolet rays
- d: Visible light
- e: None

*The correct answer is X-rays*

*Therefore, blacken  b of Question 31 in Section B of the Response Sheet.*

**Sample Question 32:** Which one of the following is equal to 1 ampere?

- a: 1 Coulomb per second
- b: 1 Joule per Coulomb
- c: 1 Joule per second
- d: 1 Watt per second
- e: None

*The correct answer is 1 Coulomb per second.*

*Therefore, blacken  a of Question 32 in Section B of the Response Sheet.*

## SECTION C: MATHEMATICS

There are 25 questions in this part that deal with Simple Arithmetic Operations & Algebra, as well as Ratio, Proportion and Percentage. Answer as many question as you can.

**Simple Arithmetic Operations & Algebra:** There are 15 questions in this section.

**Sample Question 61:**  $\sqrt{64} + \sqrt{81}$

a: 17

b: 20

c: 21

d: 24

e: None

*The correct answer is 17.*

*Therefore, blacken  a of Question 61 in Section C of the Response Sheet.*

**Sample Question 62:** Find value of  $x$  in the equation  $6x - 9 = -3$

a: 18

b: 1

c: 2

d: 5

D: None

*The correct answer is 1.*

*Therefore, blacken  b of Question 62 in Section C of the Response Sheet.*

**Ratio, Proportion and Percentage:** There are 10 questions in this section.

**Sample Question 63:** How long will it take for a plane to cover a distance of 900 miles if it maintains an average speed of 90 miles per hour?

a: 10

b: 20

c: 15

d; 18

e: None

*The correct answer is 10.*

*Therefore, blacken  a of Question 63 in Section C of the Response Sheet.*

**Sample Question 64:** In a class of 150 students, 30 percent wish to go to college. How many students wish to attend college?

- a: 50
- b: 45
- c: 20
- d: 60
- e: None

*The correct answer is 45.*

*Therefore, blacken  of Question 64 in Section C of the Response Sheet.*

## **SECTION D: GENERAL KNOWLEDGE**

**There are 5 questions in this part. Answer as many questions as you can.**

**Sample Question 91:** What is the capital of the United States of America?

- a: New York
- b: California
- c: Washington
- d: Washington DC
- e: None

*The correct answer is Washington DC.*

*Therefore, blacken  of Question 91 in Section D of the Response Sheet.*

**Sample Question 92:** In which country is Zurich located?

- a: United Kingdom
- b: Austria
- c: Switzerland
- d: Italy
- e: None

*The correct answer is Switzerland.*

*Therefore, blacken  of Question 92 in Section D of the Response Sheet.*

## SECTION E: ENGLISH

There are 15 questions in this part, aimed at testing the sentence completion, vocabulary and comprehension potentials of the candidates. Answer as many questions as you can.

**Sentence Completion:** There are 5 sentences in this section. Each sentence has one blank indicating that a word or portion of the sentence has been omitted. Choose the word or phrase that best suits the meaning of the sentence.

**Sample Question 121:** Sindh \_\_\_\_\_ a very dry climate.

- a: have
- b: being
- c: has
- d: having
- e: None

*The correct answer is has.*

*Therefore, blacken  of Question 121 in Section E of the Response Sheet.*

**Vocabulary:** There are 5 sentences in this section. Each sentence has an underlined word. Choose the word that best keeps the meaning of the sentence, if it is substituted for the underlined word.

**Sample Question 122:** Primary education is compulsory in many countries of the world.

- a: easy
- b: important
- c: free
- d: mandatory
- e: None

*The correct answer is mandatory.*

*Therefore, blacken  of Question 122 in Section E of the Response Sheet.*

**Comprehension:** This consists of a passage on some subject. It is followed by 5 Multiple Choice Questions based on what is stated or implied in that passage.