

Sample Paper

BS (CS/DS/SE/AI/CyS)



K H A N P U R
INSTITUTE OF TECHNOLOGY

General Information:

- **Total Questions:** 100
- **Total Time:** 100 Minutes (1 hour and 40 minutes)
- **Type of Questions:** Multiple Choice Questions (MCQs)
- **Each Question Carries:** 1 Mark
- **No Negative Marking**

Important Instructions:

1. **Be on Time:**
 - Arrive at the test center at least **30 minutes before** the test starts.
 - Late arrivals may not be allowed to take the test.
2. **Bring Required Items:**
 - Original CNIC or Student ID
 - Roll Number Slip / Admit Card
 - A pen or pencil for rough work
3. **Login Credentials:**
 - You will be given a **Username and Password** to log in to the computer system.
 - Do not share your login credentials with anyone.
4. **Test Navigation:**
 - You can **move forward and backward** between questions.
 - Make sure to **save your answers** before moving to the next question.
 - A timer will be shown on the screen to indicate remaining time.
5. **Question Format:**
 - Each question has **four (4)** answer choices, of which **only one is correct**.
 - Click on the correct answer to select it.
 - Use the “**Next**” and “**Previous**” buttons to navigate.
6. **Submission:**
 - The system will **automatically submit** your test when the time ends.
 - You can also **submit manually** if you finish early.
7. **Technical Issues:**
 - In case of any computer issue, immediately inform the **invigilator**.
 - Do **not attempt to fix** any hardware or software problems yourself.
8. **Behavior & Conduct:**
 - Any form of **cheating or misconduct** will result in disqualification.
 - **Mobile phones, calculators**, or any other electronic devices are **strictly not allowed**.
9. **After the Test:**
 - Wait for the invigilator’s instructions before leaving the test room.
 - Do not discuss the questions with others after the test.

Logical Reasoning

Section 1: Series / Sequences

Total Questions: 15

Q1. What comes next in the sequence?

2, 4, 8, 16, ?

- a) 18
- b) 24
- c) 32
- d) 64

Q2. Which one does not belong in the group?

Apple, Banana, Carrot, Mango

- a) Apple
- b) Banana
- c) Carrot
- d) Mango

Q3. Find the missing number:

5, 11, 17, ?, 29

- a) 22
- b) 23
- c) 24
- d) 25

Q4. Which number should come next?

1, 1, 2, 3, 5, 8, ?

- a) 11
- b) 12
- c) 13
- d) 15

Q5. "Pen" is to "Write" as "Knife" is to:

- a) Cut
- b) Sharp
- c) Fork
- d) Food

Section 2: Quantitative / Arithmetic**Total Questions: 20**

16. The dimension in centimeter of rectangular box R is 6 by 8 by 10. Which of the following cannot be total surface area, in square centimeters of two faces of R?
- A. 96
 - B. 120
 - C. 118
 - D. 160
17. The lengths of the side of a triangle are in ratio 3 to 5 to 6. If the perimeter of the triangle is 70, what is the length of the longest side?
- A. 5
 - B. 6
 - C. 15
 - D. 25
 - E. 30
18. What is the value of $(8 \times 5) \div 2$?
- A. 10
 - B. 15
 - C. 20
 - D. 40
19. A car travels 180 km in 3 hours. What is its average speed?
- A. 30 km/h
 - B. 45 km/h
 - C. 60 km/h
 - D. 90 km/h
20. What is 25% of 240?
- E. 60
 - F. 65
 - G. 75
 - H. 80
21. If a pen costs Rs. 45 and a notebook costs Rs. 75, what is the total cost of 3 pens and 2 notebooks?
- A. Rs. 225
 - B. Rs. 285
 - C. Rs. 315
 - D. Rs. 345

Section 3: Analytical

Total Questions: 15

Questions 36 - 38

Three men (Abid, Ahsan and Akmal) and three women (Asma, Anne and Kiran) are spending a few months at a hillside. They are to stay in a row of nine cottages, each one living in his or her own cottage. There are no others staying in the same row of houses.

1. Anne, Abid and Akmal do not want to stay in any cottage, which is at the end of the row.
 2. Asma and Anne are unwilling to stay besides any occupied cottage..
 3. Kiran is next to Ahsan and Akmal.
 4. Between Anne and Akmal's cottage there is just one vacant house.
 5. None of the girls occupy adjacent cottages.
 6. The house occupied by Abid is next to an end cottage.
36. Which of the above statements can be said to have been derived from two other statements?
- A. Statement 1
 - B. Statement 2
 - C. Statement 3
 - D. Statement 5
 - E. Statement 6
37. How many of them occupy cottages next to a vacant cottage?
- A. 2
 - B. 3
 - C. 4
 - D. 5
 - E. 6
38. Which among these statement(s) are true ?
- I. Anne is between Asma and Akmal.
 - II. At the most four persons can have occupied cottages on either side of them. .
 - III. Abid stays besides Ahsan.
- A. I only
 - B. II only
 - C. I and III only
 - D. II and III only
 - E. I, II and III

Questions 39- 42

An employee has been assigned the task of allotting offices to six of the staff members. The offices are numbered 1 - 6. The offices are arranged in a row and they are separated from each other by six foot high dividers. Hence voices, sounds and cigarette smoke flow easily from one office to another.

Miss Robeena's needs to use the telephone quite often throughout the day. Mr. Malik and Mr. Basit need adjacent offices as they need to consult each other often while working. Miss. Hadeeba, is a senior employee and has to be allotted the office number 5, having the biggest window. .

Mr. Akmal requires silence in the offices next to his. Mr. Talib, Mr. Malik and Mr. Akmal are all smokers. Miss Hadeeba finds tobacco smoke allergic and consecutively the offices next to hers to be occupied by non-smokers.

Unless specifically stated all the employees maintain an atmosphere of silence during office hours.

39. The ideal candidate to occupy the office furthest from Mr. Basit would be
- A. Miss Hadeeba
 - B. Mr. Malik
 - C. Mr. Talib
 - D. Mr. Akmal
 - E. Mr. Robeena
40. The three employees who are smokers should be seated in the offices.
- A. 1, 2 and 4
 - B. 2, 3 and 6
 - C. 1, 2 and 3
 - D. 1, 2 and 3
 - E. 1, 2 and 6
41. The ideal office for Mr. Malik would be.
- A. 2
 - B. 6
 - C. 1
 - D. 3
 - E. 4
42. In the event of what occurrence, within a period of one month since the assignment of the offices, would a request for a change in office be put forth by one or more employees ?
- A. Mr. Akmal quitting smoking.
 - B. The installation of a noisy teletype machine by Miss Hadeeba in her office.
 - C. Mr. Robeena's needing silence in the office (s) next to her own. .
 - D. Mr. Basit suffering from laryngitis.
 - E. Mr. Talib taking over the duties formerly taken care of by Miss. Robeena.

Section 4: English

Total Questions: 30

Section 5: English has five subsections in it:

- | | | |
|------|-----------------------|----------------|
| I. | Sentence Completion | (5 questions) |
| II. | Analogy | (5 questions) |
| III. | Antonym | (5 questions) |
| IV. | Synonym | (5 questions) |
| V. | Reading Comprehension | (10 questions) |

I. Sentence Completion (5 questions)

51. We lost confidence in him because he never _____ the grandiose promises he made.

- A. forget about
- B. tired of
- C. retreated from
- D. delivered on

52. Because it arrives so early in the season, before many other birds, the robin has been called the _____ of spring.

- A. hostage
- B. harbinger
- C. Compass
- D. Newcomer

II. Analogy (Questions 56-60)

56. BRITTLE : BREAK ::

- (A) pliable : compress
- (B) futile : separate
- (C) ductile : divide
- (D) flexible : bend
- (E) fertile : crush

III. Antonym (Questions 61-65)

61. ANOMALY

- A. desperation
- B. requisition
- C. registry
- D. regularity

62. SPENDTHRIFT

- A. miser
- B. savings
- C. cautious
- D. extravagant

IV. Synonym (Questions 66-70)

66. SURVEILLANCE

- A. inattention
- B. visibility
- C. watch
- D. prevention

67. BENIGN

- A. kindly
- B. malignant
- C. envy
- D. tenfold

V. Reading Comprehension (Questions 71-80)

But man is not destined to vanish. He can be killed, but he cannot be destroyed, because his soul is deathless and his spirit is irrepressible. Therefore, though the situation seems dark in the context of the confrontation between the superpowers, the silver lining is provided by amazing phenomenon that the very nations which have spent incalculable resources and energy for the production of deadly weapons are desperately trying to find out how they might never be used. They threaten each other, intimidate each other and go to the brink, but before the total hour arrives they withdraw from the brink.

71. The main point from the author's view is that

- A. Man's soul and spirit can not be destroyed by superpowers.
- B. Man's destiny is not fully clear or visible.
- C. Man's soul and spirit are immortal.
- D. Man's safety is assured by the delicate balance of power in terms of nuclear weapons.
- E. Human society will survive despite the serious threat of total annihilation.

72. The phrase 'Go to the brink' in the passage means

- A. Retreating from extreme danger.
- B. Declare war on each other.
- C. Advancing to the stage of war but not engaging in it.
- D. Negotiate for peace.
- E. Commit suicide.

73. In the author's opinion

- A. Huge stockpiles of destructive weapons have so far saved mankind from a catastrophe.
- B. Superpowers have at last realized the need for abandoning the production of lethal weapons.
- C. Mankind is heading towards complete destruction.
- D. Nations in possession of huge stockpiles of lethal weapons are trying hard to avoid actual conflict.
- E. There is a Silverlining over the production of deadly weapons.

Section 5: Logic Box

Total Questions: 20

Instructions for logic questions

- Box[l] means contents of box number l, e.g., Box[3] means contents of box number 3. similarly $\text{Box}[a] = \text{Box}[b] + \text{Box}[c]$ means add the contents of boxes having number b and c and output the result in box numbered a.
- The symbol * is used for multiplication, e.g., $\text{Box}[2] * \text{Box}[3]$ means multiply the contents of Box[2] with Box[3].
- Expressions like $X = X + 1$ means add one to the previous value of X and put the result back in X. For example $X = 5$, then $X = X + 1$ will make value of X equal to 6.
- NEXT and PREV are functions for alphabets to give next and previous alphabet respectively of the provided alphabet, e.g., NEXT(A) means B and PREV(B) means A
- After reading these instructions carefully, you may now start this section.

36.

BOX#	1	2	3	4	5	6
Contents	2	9	6	8	7	14

Step 1: $X=3$

Step 2: $A = \text{BOX}[X+3]$

Step 3: $B = \text{BOX}[A-10]$

Step 4: $X = B+A$

$X=?$

a. 8

b. 13

c. 14

d. 21

e. 22