

PW CEE: Syllabus and Sample Questions

We are pleased to provide you with the syllabus and sample questions for the **PW CEE (Common Entrance Exam)**, your gateway to academic excellence at **PW IOI**.

This comprehensive exam assesses your aptitude and knowledge across various subjects, preparing you for success in your educational journey.

Syllabus Overview, For PW CEE SOT Exam:

Section 1: English

- Reading Comprehensions
- Para Jumble
- Para Summary
- Odd One Out
- Para Completion
- Idioms & Phrases

Section 2: Mathematics

- Sets
- Relations and Functions
- Complex Numbers
- Quadratic Equations
- Matrices
- Determinants
- Permutations and Combinations
- Principles of Mathematical Induction
- Binomial Theorem
- Sequence and series
- Limits, continuity and differentiability
- Integral calculus
- Differential Equations
- Coordinate Geometry {Straight lines}

Section 3: Basic Computer Knowledge

- Basic of Computer Fundamental
- Pseudo Code
- Basic of Excel
- Computer Science NORMS

Section 4: Logical Reasoning

- Coding Decoding
- Venn Diagram
- Semantic Analogy
- Symbolic/Number Analogy
- Number Series
- Series
- Directions
- Blood Relations
- Setting Arrangements
- Syllogism
- Puzzles (Problem Solving)
- Alphanumeric Series
- Pattern – folding & unfolding
- Embedded Figures

Prepare diligently using this syllabus and sample questions to excel in the **PW CEE**.
Best of luck on your journey to academic success!!

Warm Wishes !!
PW IOI Team

PW CEE SAMPLE for SOT Students

LOGICAL REASONING

1. In a certain code language, the word HEALTH is written as GDZKSG. How will the word ZINC be written in that language?

- (a) YHMB
- (b) AJOD
- (c) YJNC
- (d) AIOD

Answer: a

2. In a certain code, DELHI is written as 38, how is MUMBAI written in that code?

- (a) 29
- (b) 39
- (c) 49
- (d) 59

Answer : d

3. Which set of the number is like the given set (100, 80, 64)?

- (a) (150, 120, 96)
- (b) (90, 72, 58)
- (c) (160, 120, 180)
- (d) (20, 16, 10)

Answer : a

4. If LOUD = 13, CLOUD = 11 and LEG = 8, then MONSOON =?

- (a) 9
- (b) 14
- (c) 15
- (d) 17

Answer : c

5. Robbers: Gang :: Players:

- A) Band
- B) Team
- C) Crowd
- D) Crew

Answer: B

MATHEMATICS

1. If A is the set of days in a week, then set A is

- (a) Empty set
- (b) Singleton set
- (c) Finite set
- (d) Infinite set

Answer: c

2. In a class of 60 students, 30 students like Mathematics, 25 like Science and 15 like both. Then, the number of students who like neither Mathematics nor Science is

- (a) 30
- (b) 20
- (c) 15
- (d) 10

Answer: b

3. In a battle, 70% of the combatants lost one eye, 80% lost one leg, 85% lost ear, 90% an arm. If $x\%$ lost all the four limbs, then minimum value of x

- (a) 25%
- (b) 20%
- (c) 30%
- (d) 35%

Answer : a

4: Let $B = \{1, 2, 3, 4, 5, \dots, 30\}$, $A = \{2, 3, 4, 5, 6, 7, 8, 9, 10\}$. A relation is defined from A to B defined by $R = \{(a, b) : b = 4a, a \in A, b \in B\}$, then which of the following is false.

- (a) Domain of $R = \{2, 3, 4, 5, 6, 7\}$
- (b) Range of $R = \{8, 12, 16, 20, 24, 28\}$
- (c) Codomain of $R = B$
- (d) Pre-image of 27 is 3

Answer : d

5: Range of function $f(x) = \cos(k \sin x)$ is $[-1, 1]$, then the least positive integral value of k will be

- (a) 1
- (b) 2
- (c) 3
- (d) 4

Answer: d

COMPUTER SCIENCE

Q.1 Capitalize the initial keyword – This is a rule while writing a pseudo code.

- a. True
- b. False

Ans. b

Sol. False. In pseudo code, there are no strict rules, and capitalization is generally a matter of style and preference. Pseudo code is designed to be a human-readable representation of an algorithm or program logic, and it doesn't have a standardized syntax like a programming language.

Q.2 Which of the following series will be printed by the given pseudocode?

```
Integer a, b, c
Set b = 4, c = 5
for(each a from 2 to 4)
    print c
    b = b - 1
    c = c + b
end for
```

- a. 5 8 10
- b. 1 3 6
- c. 8 9 10
- d. 3 6 9

Ans. a

Q.3 What does the following pseudo-code represent?

```
while count < 10:
    print("Hello, World!")
    count = count + 1
```

- a. A loop that prints "Hello, World!" 10 times
- b. A decision-making structure based on count
- c. A function to print "Hello, World!"
- d. A loop that prints "Hello, World!" indefinitely

Ans. a

Q.4 What is the full form of OTP?

- a. One the phone
- b. One Time Password
- c. Out to practice
- d. One Time Programmable

Ans. a

Q.5 Convert the binary number 101011 to its decimal equivalent.

- a. 21
- b. 43
- c. 53
- d. 87

Ans. c

Sol. $1 * 2^5 + 0 * 2^4 + 1 * 2^3 + 0 * 2^2 + 1 * 2^1 + 1 * 2^0$

ENGLISH

Q. 1 In the given sentence, an idiom or phrase is used which has been underlined. Find the closest meaning to the idiom according to the context from the given options.

The rich and famous live high on the hog, while the poor suffer on the streets.

- (A) Live extravagantly
- (B) Live wisely
- (C) Live passionately
- (D) Live with many people

Answer- A

Q. 2 The following sentence has an underlined part. Which is the best idiom from the given options that best fits into the context?

The suspense movie was so intriguing that it kept me anxious till the end.

- (A) I was a bag of nerves
- (B) I was afraid of one's shadow
- (C) I had butterflies in my stomach
- (D) I was on tenterhooks

Answer- D

Q. 3 Directions: The following question has a paragraph from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.

Q) Most firms consider expert individuals to be too elitist, temperamental, egocentric, and difficult to work with. Force such people to collaborate on a high-stakes project, and they just might come to fisticuffs. Even the very notion of managing such a group seems unimaginable. So, most organizations fall into default mode, setting up project teams of people who get along nicely._____.

- (A) The result, however, is disastrous.
- (B) The result is mediocrity
- (C) The result is creation of experts who then become elitists.
- (D) Naturally, they drive innovations.

Answer- B

Q.4 Directions: The following question has a paragraph from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.

Q) When normal dogs are placed in a box in which they must jump from one compartment to another in order to escape an electric shock, they learn to do so with little difficulty. This contrasts with a second group of dogs who are first exposed to a series of painful shocks about which they can do absolutely nothing. When this second group is later placed in the box, their performance is drastically different from that of normal dogs. They do not look for some means of escape. Nor do they ever find the correct response-jumping over the hurdle. Instead, they simply give up; they lie down, whimper, and passively accept their fate._____.

- (A) They have learned to become helpless.
- (B) They have learned to become desperate.
- (C) They have learned to become useless.
- (D) They have learned to become worthless.

Answer- A

Q. 5 Directions: Rearrange the jumbled sentences to show the appropriate sequence.

1. By fostering a sense of community and shared identity, music strengthens the social fabric and promotes cultural understanding and acceptance.
2. It has the ability to transcend cultural and linguistic barriers, creating a shared experience among diverse populations.
3. Music, a universal medium, echoes the emotional tapestry of the human experience, resonating with our deepest feelings and thoughts.
4. Its transformative power can alter our mood, perceptions, and even our behavior, serving as a therapeutic tool for those grappling with emotional and psychological challenges.

- (A) 1324
- (B) 2341
- (C) 4231
- (D) 3142

Answer- B