

COMMON IESTEY ENTRANCE TEST (CIET)

(Sample Question Paper)



(DREaD Co-Innovation Network)

(Inspiring Entrepreneurial, Scientific, and Technological Exploration in Youth) IESTEY Fellowship Program from Disruptive Research Engineering Assisted Design Private Limited is powered by the DREaD Co-Innovation Network Foundation's Scholarship.

*Direction: The following question paper consists of a total of 100 questions. Section A has 35 questions on Reasoning, Section B has 30 questions on Computer Science and Section C has 35 questions on Mathematics. All questions carry 1 mark. **The duration of the exam is 1 Hour.***

SECTION – A

Reasoning Ability

1. Complete the series 1,6,13,22, 33,..

- A. 46 B. 48
C. 49 D. 51

2. Complete the series 165, 195, 255, 285, 345, ?

- A. 390 B. 420

C. 435 D. 375

3. What will be the code for 'translate'?

A. #E8 B. @E9

C. @E8 D. #T9

E. #T8

4. What is the code for the colour "Grey"?

A. Set B. Jet

C. Let D. Pet

E. Wet

5. Ravi is a son of Aman's father's sister. Sahil is the son of Divya who is the mother of Gaurav and grandmother of Aman. Ashok is the father of Tanya and grandfather of Ravi. Divya is the wife of Ashok. How is Ravi related to Divya?

A. Nephew

B. Son

C. Grandson

D. Data inadequate

6. Read the following instructions:

P \$ Q means P is the brother of Q.

P # Q means P is the mother of Q.

P * Q means P is the daughter of Q

If the code of family is A # B \$ C * D, who is the father in them?

1. D
2. B
3. C
4. A

7. By 20 minutes past 4, the hour hand has turned through how many degrees? If then the clock is 12 p.m.

- A. 100° B. 110°
C. 120° D. 130°

Directions (Q8-Q10): For each of the questions given below, two statements I & II have been given. Analyse and answer whether the data provided in the two statements are sufficient to answer the question or not. Read the statements and choose from the options given below:

- A. If the data alone in statement I is sufficient to answer the question, while the data alone in statement II is not sufficient to answer the question.
- B. If the data alone in statement II is sufficient to answer the question, while the data alone in statement I is not sufficient to answer the question.
- C. Data in either statement I or statement II is sufficient to answer the question.
- D. If data in the two statements together is also not sufficient to answer the question.

8. Number of females from village C in all the years together is what percent of the total number of employees from village C in all the years together?

Statement I: Total number of employees from village C in 2017 is 280 and the ratio of the number of females to males from C in 2017 is 4: 3.

Statement II: 60% of the total number of employees from village C in 2014 to 2017 is males.

1. A
2. B
3. C
4. E
5. D

9. In which year was Rahul born?

Statements:

1. Agatsya at present is 25 years younger to his mother.
2. Agatsya brother, who was born in 1964, is 35 years younger to his mother.

- A. I alone is sufficient while II alone is not sufficient.
- B. II alone is sufficient while I alone am not sufficient.
- C. Either I or II is sufficient.
- D. Neither I nor II is sufficient.
- E. Both I and II are sufficient.

10. What will be the total weight of 10 poles, each of the same weight?

Statements:

1. One-fourth of the weight of each pole is 5 kg.
2. The total weight of three poles is 20 kilograms more than the total weight of two poles.

- A. I alone is sufficient while II alone is not sufficient.

- B. II alone is sufficient while I alone am not sufficient.
- C. Either I or II is sufficient.
- D. Neither I nor II is sufficient.
- E. Both I and II are sufficient.

11. In a row of people, the position of Saket from the left side of the row is 27th and position of Saket from the right side of the row is 34th. Find the total number of students in the row?

- A. 60
- B. 61
- C. 62
- D. 59

12. There are 24 students in dance class, and the teacher is planning for an arrangement of students on stage. Sampratha is 9th from the left side of the row and Supreetha is 22nd from the right side of the row. Find the number of dancers standing between the sisters Sampratha and Supreetha?

- A. 4
- B. 5
- C. 6
- D. 7

13. There are 64 history books arranged in a row at the central library Bangalore. Ancient history is 25th from the left side of the row and Middivel history is 30th from the right side of the row. What is the total number of books between Ancient and Middivel history?

- A. 6
- B. 7

C. 8

D. 9

14. Deepavali or Diwali a festival lights in India. One can find the row of lamps in every house these days. Chaitra lights a row of the lamp in her home. A square-shaped lamp is at 18th from left, and a circular-shaped lamp is at 25th position in a row from right. Find the total number of lamp Chaitra had lit?

A. 27

B. 30

C. 43

D. Cannot be determined.

Directions (Q15-Q16): Based on the digit-alphabets-symbols series given below, answer the following questions:

@ 1 8 H L I 6 K * & ? U E

15. How many such consonants are there in the series which are immediately followed by a symbol and preceded by a number?

1. One

2. Two

3. Three

4. None

5. Four

16. How many numbers are there in the series which are preceded by a vowel and succeeded by a consonant?

1. Two

2. Four
3. Three
4. None
5. One

17. From the given options, find the pair which is similar to the given pair:
8:4

- A. 27:9
- B. 216:32
- C. 72:24
- D. 45:5
- E. 37

18. What shall come in place of (?) Questions mark?

Flow: River: Stagnant: ?

1. Canal
2. Dam
3. Ocean
4. Pool
5. Sea

Find the statement that must be true according to the given information:

19. Vincent has a paper route. Each morning, he delivers 37 newspapers to customers in his neighborhood. It takes Vincent 50 minutes to deliver all the papers. If Vincent is sick or has other plans, his friend Thomas, who lives on the same street, will sometimes deliver the papers for him.

- A. Vincent and Thomas live in the same neighborhood.
- B. It takes Thomas more than 50 minutes to deliver the papers.
- C. It is dark outside when Vincent begins his deliveries.

D. Thomas would like to have his own paper route.

20. The Pacific yew is an evergreen tree that grows in the Pacific Northwest. The Pacific yew has a fleshy, poisonous fruit. Recently, taxol, a substance found in the bark of the Pacific yew, was discovered to be a promising new anticancer drug.

A. Taxol is poisonous when taken by healthy people.

B. Taxol has cured people of various diseases.

C. People should not eat the fruit of the Pacific yew.

D. The Pacific yew was considered worthless until taxol was discovered.

21. Window is to pane as book is to

A. novel

B. glass

C. cover

D. page

22. Yard is to inch as quart is to

A. gallon

B. ounce

C. milk

D. liqui

23. Statements: All mangoes are golden in color. No golden-colored things are cheap.

Conclusions:

1. All mangoes are cheap.
2. Golden-colored mangoes are not cheap.

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I nor II follows.
- E. Both I and II follow.

24. Statements: Some kings are queens. All queens are beautiful.

Conclusions:

1. All kings are beautiful.
2. All queens are kings.

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I nor II follows.
- E. Both I and II follow.

25. SCD, TEF, UGH, _____, WKL

1. CMN
2. UJI
3. VIJ
4. IJT

26. Find the odd one out:

- A) Car
- B) Bicycle
- C) Bus
- D) Train

27. What will come next in the series: 2, 6, 12, 20, ___?

- A) 28
- B) 30
- C) 32
- D) 36

28. If "MANGO" is coded as "NBOHP", how will "APPLE" be coded?

- A) BQQMF
- B) BQPLF
- C) BPPMF
- D) BQRLF

29. Which of the following does not belong to the group?

- A) 3
- B) 7
- C) 11
- D) 15

30. Complete the analogy: CAT : MEOW :: DOG : ?

- A) BARK
- B) PURR
- C) HISS
- D) ROAR

31. Which number should replace the question mark? 3, 9, 27, 81, ?

- A) 243
- B) 162
- C) 324
- D) 189

32. If the following words are arranged in alphabetical order, which one will come last?

- A) Banana
- B) Apple
- C) Cherry
- D) Date

33. Find the missing number in the series: 5, 15, 35, 75, ?

- A) 115
- B) 135
- C) 155
- D) 175

34. Which word does not belong with the others?

- A) Niece
- B) Nephew
- C) Cousin

- D) Friend

35. Find the next term in the series: A, C, F, J, O, ?

- A) Q

- B) S

- C) T

- D) U

SECTION – B

Computer Science

1. Who is the father of C language?

a) Steve Jobs

b) James Gosling

c) Dennis Ritchie

d) Rasmus Lerdorf

2. Which is valid C expression?

a) `int my_num = 100,000;`

b) `int my_num = 100000;`

c) `int my num = 1000;`

d) `int $my_num = 10000;`

3. What is short int in C programming?

- a) The basic data type of C
- b) Qualifier
- c) Short is the qualifier and int is the basic data type
- d) All of the mentioned

4. Which of the following return-type cannot be used for a function in C?

- a) char *
- b) struct
- c) void
- d) none of the mentioned

5. scanf() is a predefined function in_____header file.

- a) stdlib. h
- b) ctype. h
- c) stdio. h
- d) stdarg. H

6. What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    int y = 10000;
    int y = 34;
    printf("Hello World! %d\n", y);
    return 0;
}
```

- a) Compile time error
- b) Hello World! 34
- c) Hello World! 1000
- d) Hello World! followed by a junk value

7. What is meant by 'a' in the following C operation?

```
fp = fopen("Random.txt", "a");
```

- a) Attach
- b) Append
- c) Apprehend
- d) Add

8. What will be the output of the following C code?

```
#include <stdio.h>

int main()
{
    signed char chr;
    chr = 128;
    printf("%d\n", chr);
    return 0;
}
```

- a) 128
- b) -128
- c) Depends on the compiler

d) None of the mentioned

9. What will be the output of the following C function?

```
#include <stdio.h>
enum birds {SPARROW, PEACOCK, PARROT};
enum animals {TIGER = 8, LION, RABBIT, ZEBRA};
int main()
{
    enum birds m = TIGER;
    int k;
    k = m;
    printf("%d\n", k);
    return 0;
}
```

- a) 0
- b) Compile time error
- c) 1
- d) 8

10. Which gate is known as the universal gate?

- A. NAND
- B. OR
- C. AND
- D. Non

11. How does a logic gate function?

- A. Using the flow of electric current.
- B. Spontaneously
- C. By using energy from a chemical reaction.
- D. None of the above

12. Which of the following are the arithmetic logic gates?

- A. X-OR
- B. X-NOR
- C. Both
- D. None

13. What is the full form of DCDVS logic?

- A. Differential cascade voltage switch
- B. Differential cascade voltage static
- C. Differential complex voltage switch
- D. None

14. What is the one's complement for the binary number 011001

- A. 000111
- B. 100110
- C. 111001
- D. 110001

15. Expand TTL

- A. Transistor-transducer logic
- B. Transistor- transistor logic
- C. Transducer-transistor logic
- D. None

16. Which of the following is a computer's smallest unit of data?

- a) Bit
- b) KB
- c) Nibble
- d) Byte

17. Which of the following is the brain of the computer?

- a) Central Processing Unit
- b) Memory
- c) Arithmetic and Logic unit
- d) Control unit

18. Which of the following units is responsible for converting the data received from the user into a computer understandable format?

- a) Output Unit
- b) Input Unit
- c) Memory Unit

d) Arithmetic & Logic Unit

19. Which of the following monitors looks like a television and are normally used with non-portable computer systems?

a) LED

b) LCD

c) CRT

d) Flat Panel Monitors

20. Which of the following is not a type of computer code?

a) EDIC

b) ASCII

c) BCD

d) EBCDIC

21. Which of the following is designed to control the operations of a computer?

a) User

b) Application Software

c) System Software

d) Utility Software

22. Which of the following devices uses positional notation to represent a decimal number?

- a) Pascaline
- b) Abacus
- c) Computer
- d) Calculator

23. Which of the following defines the assigned ordering among the characters used by the computer?

- a) Accumulation
- b) Sorting
- c) Collating Sequence
- d) Unicode

24. Which of the following is known as the interval between the instant a computer makes a request for the transfer of data from a disk system to the primary storage and the instance the operation is completed?

- a) Disk utilization time
- b) Drive utilization time
- c) Disk access time
- d) Disk arrival time

25. Which of the following is the device used for converting maps, pictures, and drawings into digital form for storage in computers?

- a) Image Scanner
- b) Digitizer
- c) MICR

d) Scanner

26. Which of the following is a primary storage device?

- A) Hard Disk
- B) RAM
- C) DVD
- D) USB Drive

27. Which of the following languages is used for creating web pages?

- A) Python
- B) Java
- C) HTML
- D) C++

28. In the context of databases, what does SQL stand for?

- A) Simple Query Language
- B) Standard Query Language
- C) Structured Query Language
- D) System Query Language

29. Which of the following is an example of an operating system?

- A) Microsoft Word
- B) Linux
- C) Google Chrome
- D) SQL Server

30. What does the term 'CPU' stand for in computer science?

- A) Central Process Unit
- B) Central Processing Unit
- C) Central Program Unit
- D) Central Processor Unit

SECTION – C

Mathematics

1. If $x = 5$ and $y = 3$ what is the value of $x^2 - y^2$?
 - A) 16
 - B) 8
 - C) 10
 - D) 14

2. The sum of two numbers is 20, and their difference is 4. What are the numbers?
 - A) 12 and 8
 - B) 14 and 6
 - C) 16 and 4
 - D) 18 and 2

3. What is the value of 3^4 ?
 - A) 27
 - B) 64
 - C) 81
 - D) 91

4. What is $\frac{7}{8} - \frac{3}{4}$?

- A) $\frac{1}{8}$

- B) $\frac{2}{8}$

- C) $\frac{3}{8}$

- D) $\frac{4}{8}$

5. What is the perimeter of a triangle with sides 5 cm, 12 cm, and 13 cm?

- A) 28 cm

- B) 30 cm

- C) 32 cm

- D) 34 cm

6. What is $\frac{2}{3} + \frac{3}{4}$?

- A) $\frac{7}{12}$

- B) $\frac{8}{12}$

- C) $\frac{17}{12}$

- D) $\frac{14}{12}$

7. What is the value of 2^{10} ?

- A) 512

- B) 1024

- C) 2048

- D) 4096

8. The ratio of the ages of two people is 3:5. If the sum of their ages is 40, what is the age of the younger person?

- A) 10
- B) 12
- C) 15
- D) 18

9. What is the area of a triangle with base 8 cm and height 5 cm?

- A) 20 sq cm
- B) 25 sq cm
- C) 30 sq cm
- D) 35 sq cm

10. What is the LCM of 6 and 8?

- A) 12
- B) 18
- C) 24
- D) 30

11. If $\frac{4}{5} = x$, what is $5x$?

- A) 2
- B) 3
- C) 4
- D) 5

12. What is the value of $5 + 4 \times 3 - 2$?

- A) 9
- B) 11
- C) 12

- D) 15

13. If $x = 10$ and $y = 2$, what is the value of $\frac{x}{y} + y$?

- A) 4

- B) 6

- C) 7

- D) 8

14. What is the value of $\sqrt{81}$?

- A) 7

- B) 8

- C) 9

- D) 10

15. What is the sum of the interior angles of a pentagon?

- A) 360 degrees

- B) 540 degrees

- C) 600 degrees

- D) 720 degrees

16. What is the volume of a cube with side length 3 cm?

- A) 9 cm³

- B) 18 cm³

- C) 27 cm³

- D) 36 cm³

17. What is the average of the first 5 natural numbers?

- A) 2
- B) 3
- C) 4
- D) 5

18. If the side of a square is doubled, how does the area change?

- A) It doubles
- B) It triples
- C) It quadruples
- D) It remains the same

19. What is the simple interest on Rs. 1000 at 5% per annum for 2 years?

- A) Rs. 50
- B) Rs. 100
- C) Rs. 150
- D) Rs. 200

20. What is the probability of rolling a 3 on a standard 6-sided die ?

- A) $\frac{1}{2}$
- B) $\frac{1}{3}$
- C) $\frac{1}{4}$
- D) $\frac{1}{6}$

21. If $y = 2x + 3$, what is the value of y when $x = 4$?

- A) 5
- B) 7

- C) 9
- D) 11

22. What is the HCF of 24 and 36 ?

- A) 6
- B) 8
- C) 12
- D) 18

23. What is the value of 8^0 ?

- A) 0
- B) 1
- C) 8
- D) -1

24. What is the area of a circle with radius 7 cm?

- A) 44 sq cm
- B) 77 sq cm
- C) 154 sq cm
- D) 308 sq cm

25. What is the value of $2x + 3 = 9$ when $x = 3$?

- A) 3
- B) 6
- C) 9
- D) 12

26. If a train travels at a speed of 60 km/h, how far will it travel in 2.5 hours?

- A) 100 km
- B) 120 km
- C) 150 km
- D) 180 km

27. If $5x = 20$, what is the value of x ?

- A) 2
- B) 3
- C) 4
- D) 5

28. What is the smallest prime number?

- A) 0
- B) 1
- C) 2
- D) 3

29. What is the value of $\frac{12}{4}$?

- A) 2
- B) 3
- C) 4
- D) 5

30. What is $\frac{1}{2} + \frac{1}{4}$?

- A) $\frac{1}{2}$

- B) $\frac{1}{3}$
- C) $\frac{1}{4}$
- D) $\frac{3}{4}$

31. What is $4!$ (4 factorial)?

- A) 16
- B) 20
- C) 24
- D) 28

32. What is the value of x if $3x + 2 = 11$?

- A) 1
- B) 2
- C) 3
- D) 4

33. What is $\frac{25\%}{100\%}$?

- A) 0.5
- B) 0.25
- C) 0.75
- D) 1.0

34. If the length of a rectangle is 5 cm and its width is 3 cm, what is its perimeter?

- A) 12 cm
- B) 15 cm
- C) 16 cm

- D) 18 cm

35. If the mean of five numbers is 10, what is their sum?

- A) 40

- B) 50

- C) 60

- D) 70

----- X -----