**JSPM’s Jayawantrao Sawant College of Enginerring, Pune**

**IoT Club**

**General Aptitude Test for Dassault Systems**

**Time: 60 minutes**

**Section 1: Logical Reasoning**

1.  **Complete the series: 2, 6, 12, 20?**

    A) 24

    B) 30

    C) 32

    D) 36

**Justification:** Difference between two consecutive terms is increasing by 2.

2.  **Find the odd one out: Square, Cube, Sphere, Rectangle**

    A) Square

    B) Cube

    C) Sphere

    D) Rectangle

**Justification**: Sphere is the only shape without any edges and vertices

3.  **If A = 1, B = 2, ..., Z = 26, then what is PRODUCT?**

    A) 560

    B) 640

    C) 720

    D) 840

4.  **Which number replaces the "?" in: 4, 9, 25, 49, ?**

    A) 64

    B) 81

    C) 121

    D) 144

**Justification:** The given series is of square of prime numbers, So after 7 next prime number is 11.

5.  **Statement: All engineers are analytical. Some analysts are programmers. Conclusion: Some engineers are programmers.**

    A) True

    B) False

    C) Can’t say

    D) Partially true

**Section 2: Quantitative Aptitude**

6.  **If 12 workers build a wall in 10 days, how many days will 15 workers take?**

    A) 6

    B) 8

    C) 10

    D) 12

**Justification:** More workers take less time, so 12\*10=15\*x

X = 120/15,

X=8

Therefore, 15 workers will build the wall in 8 days

7.  **A shop offers a 20% discount on a ₹500 item. How much will you pay?**

    A) ₹400

    B) ₹450

    C) ₹350

    D) ₹300

**Justification:** 20% of 500 = (20/100) \* 500 = 100,

So, amount = 500 – 100 = 400

8.  **What is 25% of 20% of 1000?**

    A) 50

    B) 100

    C) 150

    D) 200

**Justification:** 20% of 1000 gives 200 and 25% of 200 is 50

9.  **If 3x + 5 = 20, what is x?**

    A) 3

    B) 5

    C) 7

    D) 9

**Justification:** From given equation we get x = (20-5)/3, after solving this we get X = 5.

10.  **Ratio of boys to girls is 3:2. If there are 120 boys, how many girls are there?**

    A) 60

    B) 80

    C) 100

    D) 120

**Justification:** If there are 120 boys then the ratio of number of boys and girls must be equal to the given ratio 3:2

Therefore: 3:2 = 120:x

After solving for x, Number of girls will be 80.

**Section 3: Verbal Ability**

11.  **Synonym of "Pragmatic"?**

    A) Idealistic

    B) Practical

    C) Theoretical

    D) Emotional

12.  **Antonym of "Benevolent"?**

    A) Kind

    B) Malevolent

    C) Generous

    D) Friendly

13.  **Fill in the blank: "She \_\_\_ to the store every morning."**

    A) Go

    B) Goes

    C) Gone

    D) Going

14.  **"The cat sat** *\_\_***\_\_ the mat."**

    A) On

    B) At

    C) In

    D) Over

15.  **Which is grammatically correct?**

    A) She don’t know

    B) She doesn’t knows

    C) She doesn’t know

    D) She not know

**Section 4: Abstract Reasoning**

16.  **Next in the sequence: △, ◻, ▽, ◻, ?**

    A) △

    B) ◻

    C) ▽

    D) ○

**Justification:** The system repeats three symbols in a cycle. After every square, it continues with a triangle. If the last triangle was a lower triangle, the next will be an upper triangle. Hence, the pattern continues with upper triangle.

17.  **If ⚀ + ⚁ = 3, ⚂ + ⚃ = 7, then ⚄ + ⚅ = ?**

    A) 9

    B) 11

    C) 13

    D) 15

**Justification**: In both shapes there are total 11 dots.

18.  **Which shape does NOT belong?**

   ![Shapes: Circle, Hexagon, Cube, Pentagon]

    A) Circle

    B) Hexagon

    C) Cube

    D) Pentagon

**Justification:** Circle, Hexagon and Pentagon all are 2D shapes.

19.  **Find the missing number:**

   | 3 | 5 | 7 |

   | | | |

   | 6 | 10 | ? |

   | 9 | 15 | 21 |

    A) 12

    B) 14

    C) 16

    D) 18

**Justification:** Each columns contain multiples of (3,5,7) So the missing number will be 14.

20.  **If » means ‘>’, « means ‘<’, and ¬ means ‘=’, then which is true?**

    A) 5 » 6

    B) 4 « 4

    C) 7 ¬ 8

    D) 3 » 2

**Justification**: 3>>2, because “>>” is equal to “>”.

**Section 1: Logical Reasoning**

21.  **If the day before yesterday was Wednesday, what day will it be tomorrow?**

    A) Friday

    B) Saturday

    C) Sunday

    D) Thursday

**Justification:** If day before yesterday is Wednesday then today is Friday and tomorrow will be Saturday.

22.  **Which of the following is a prime number?**

    A) 21

    B) 25

    C) 29

    D) 35

**Justification:** 21, 25 and 35 has more than two factors. 29 has no factors other than 1 and itself.

23.  **If all roses are flowers and some flowers fade quickly, can we conclude that some roses fade quickly?**

    A) Yes

    B) No

    C) Cannot be determined

    D) All roses fade quickly

**Answer:**   **C) Cannot be determined**

24.  **What is the next number in the series: 1, 4, 9, 16, ?**

    A) 20

    B) 25

    C) 30

    D) 36

**Justification:** The given series is of squares of natural numbers.

25.  **If a clock shows 3:15, what is the angle between the hour and minute hands?**

    A) 45 degrees

    B) 90 degrees

    C) 97.5 degrees

    D) 105 degrees

**Section 2: Quantitative Aptitude**

26.  **A car travels 60 km in 1 hour. How far will it travel in 2.5 hours?**

    A) 120 km

    B) 150 km

    C) 180 km

    D) 200 km

**Justification:** If a car travels 60 km in the first hour, it will travel another 60 km in the next hour, and in half an hour, it will travel 30 km (half of 60 km).  
Therefore, in 2.5 hours, the car will travel: 60+60+30 = 150km

27.  **If a rectangle has a length of 10 cm and a width of 5 cm, what is its area?**

    A) 30 cm²

    B) 40 cm²

    C) 50 cm²

    D) 60 cm²

**Justification:** Area of rectangle = length \* width = 10 \* 5 = 50

28.  **A train leaves a station at 2 PM traveling at 80 km/h. What time will it arrive at a station 240 km away?**

    A) 4 PM

    B) 5 PM

    C) 6 PM

    D) 7 PM

**Justification:** Time = Distance/ Speed,

Time =240/80

Time= 3hr,

So train will arrive at a station at 2pm + 3hrs = 5pm

29.  **If a product costs ₹200 after a 10% discount, what was its original price?**

    A) ₹220

    B) ₹230

    C) ₹240

    D) ₹250

**Justification:**  
After a 10% discount, the product costs ₹200, let original price be x then 0.9x = 200

So the original price will be 222.22

30.  **A bag contains 3 red, 2 blue, and 5 green balls. What is the probability of drawing a red ball?**

    A) 1/5

    B) 3/10

    C) 1/3

    D) 1/2

**Justification:**  
There are 3 red balls out of 10 total balls, so the probability is 3/10.

**Section 3: Verbal Ability**

31.  **Choose the word that is most similar to "Eloquent."**

    A) Silent

    B) Articulate

    C) Mute

    D) Inarticulate

32.  **Which of the following is an antonym of "Abundant"?**

    A) Plentiful

    B) Scarce

    C) Ample

    D) Overflowing

33.  **Fill in the blank: "He is known for his \_\_\_ behavior."**

    A) Erratic

    B) Predictable

    C) Consistent

    D) Stable

34.  **Which of the following sentences is correct?**

    A) She don’t like apples.  s

    B) She doesn’t likes apples.

    C) She doesn’t like apples.

    D) She not like apples.

35.  **What is the meaning of "Ubiquitous"?**

    A) Rare

    B) Everywhere

    C) Hidden

    D) Unique

**Section 4: Abstract Reasoning**

36.  **Which number is the odd one out? 2, 4, 6, 8, 10, 12, 14, 15**

    A) 2

    B) 4

    C) 15

    D) 12

**Justification:** The difference between every two consecutive terms is 2. Hence after 14 there will be 16 instead of 15.

37.  **If A is taller than B, and B is taller than C, who is the shortest?**

    A) A

    B) B

    C) C

    D) Cannot be determined

**Justification:** Since A is taller than B, and B is taller than C, C is the shortest among the three.

38.  **What comes next in the sequence: 1, 1, 2, 3, 5, 8, ?**

    A) 10

    B) 11

    C) 12

    D) 13

**Justification:** In given Fibonacci series the next term is the sum of previous two terms.

39.  **Which shape does NOT belong?**

   ![Shapes: Triangle, Square, Circle, Rectangle]

    A) Triangle

    B) Square

    C) Circle

    D) Rectangle

**Justification:** Triangle, Square and Rectangle each shape consists of vertices and sides.

40.  **If 5 + 3 = 8, 6 + 4 = 10, then what is 7 + 5?**

    A) 11

    B) 12

    C) 13

    D) 14