1. Bacteria which live in soil that converts atmospheric nitrogen in to nitrates
   a) Rhizobium   b) Acetobactor
   c) chlamido monus   d) lactobacillus

2. Which of the following is caused by virus?
   a) cholera   b) tuberculosis
   c) AIDS   d) None of these

3. The largest cell in the human body is ....
   a) neuron   b) ovum
   c) brain cell   d) muscle cell

4. ....… is known as the power house of cells.
   a) nucleus   b) golgi apparatus
   c) lysosome   d) mitochondria

5. Metallurgy is the study about ....
   a) metals   b) allergy diseases
   c) allergy diseases caused by metals   d) nonmetals

6. Arrange the given metals in the decreasing order of their reactivity. Zinc, Magnesium, Calcium
   a) Magnesium, calcium, Zinc
   b) Calcium, Magnesium, Zinc
   c) Zinc, Magnesium, Calcium
   d) Magnesium, Zinc, Calcium

7. Which of these produces the least friction?
   a) Sliding friction   b) Rolling friction
   C) Static friction   d) All these three are equal

8. The SI unit of pressure is
   a) Pascal   b) Newton
   c) Joul   d) Calorie

9. What is frequency?
   a) Loudness of a sound wave
   b) Number of vibrations made by a vibrating body
   c) Intensity of sound wave
   d) All of these

10. Shaving mirror is made of
    a) Concave mirror   b) Convex mirror
    c) Plane mirror   d) Metallic mirror

11. What does `M´ stands for in DBMS?
    a) Management   b) Measuring
    c) Maintenance   d) Monitoring

12. Bugs are ……………………….
    a) Error in computer programme
    b) Computer virus
    c) Mobile virus
    d) Antivirus

13. If $a = 1/5$. the value of $\dfrac{-a + 2a}{a}$ is ………………
    a) -1/5   b) -25
    c) -1   d) 1

14. Find the product of additive inverse of 3/5 and multiplicative inverse of 5/8.
    A) -24/25   b) 24/25
    C) -25/24   d) 25/24

15. Sabu earns ₹ 24000 per month. He spent ¼ of his money on house rent and 1/5 of the remaining money on food. How much he spent on food?
    a) ₹ 6000   b) ₹ 18000
    c) ₹ 3600   d) ₹ 3000

16. Find the value of $(23^2)^5 \div (23^2)^4$
    a) 23^1 b) 23^2
    c) 23^4 d) 1^2

17. Find the value of `a´ in the given expression? $6^a \div 6^9 = \frac{1}{6^3}$
    a) 6   b) 12
    c) 27   d) 18

18. Which of the following is the multiplicative inverse of 3^5?
    a) 3^5 b) 5^3
    c) 3^{-5} d) -3^5

19. Which of the following is the smallest perfect square which is divisible by 3,4 ,5 and 6
    a) 900   b) 625
    c) 1000   d) 324

20. Which of the following is not a perfect cube?
    a) 225   b) 125
    c) 216   d) 512

21. The sum of the cube and the square of a number is 810. Which is the number?
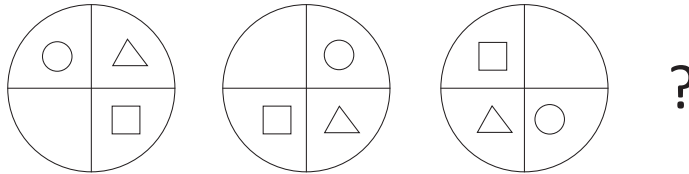   a) 10   `   b) 8
    c) 7   d) 9

22. On factorizing 3ab + 18abc, we get ……………
    a) ab(3 + 18c)   b) abc(3 + 18)
    c) ab(3 + 18c)   d) 3ab(1 + 6c)

23. 14 : 42 :: 16 : ....
    a) 52   b) 48
    c) 61   d) 62

24. Find the next picture?

25. 3, 9, 15, 21, 27, ... This is a pattern getting by adding 6 each to 3.
    The general form of this pattern is
    a) 3a + 6   B . 3a + 3
    c) 6a + 3   d) 6a + 6

26. $3^5 + 3^5 + 3^5 =$ ....
    a) 3^{15} b) 3^{125}
    c) 3^2 d) 3^6

27. $a^4/a^{-9} =$ ....
    a) a^{13} b) $1/a^{13}$
    c) a^5 d) a^{-5}

28 . One of the following is a perfect square. Which is that?
    a) 15625   b) 16000
    c) 12362   d) 25605

29. 12321 and 12544 are two consecutive perfect squares. Which is the next perfect square?
    a) 15625   B 12836
    c) 12769   d) 12925

30. A water tank has two taps. One for filling water in the tank and the other is to empty the tank. If the first tap is opened tank will fill in 10 minutes. If the second tap is opened tank will be empty within 15 minutes. How much time is needed to fill the tank if both taps are opened?
    a) 25 minutes   b) 30 minutes
    c) 7.5 minutes   d) 6 minutes

31. Which will be the digit in the ones place of the number written as $15^6 \times 26^9 \times 21^3$
    a) 1   b) 6   c) 5   d) 0

32. The sum of sum and difference of number is equal to the double of the larger number. Which of the following expression is suitable to this statement.
    a) a + b= 2a   b) (a + b) - (a - b) = 2b
    c) (a + b) + (a - b) = 2a   d) (a + b) + a = 2ab

33. Network used inside an office building?
    a) PAN   b) LAN   c) WLAN   d)WAN

34. JAVA is developed by?
    a) Richard Hadle   b) Melish
    c) Donald .E.Knuth   d) James gosling

35. Who is the 49th chief justice of India ?
    a) U.U Lalith   b) D.Y Chandrachud
    c) N.V Ramana   d) Ranjan gogoi

36. The new scheme of recruitment announced by the union govt to the three armed forces of India?
    a) ASPIRE   b) Skill India
    c) Agnipath   d) Start up India

37. The 44th chess Olympiad 2022 was held at
    a) Bangalore   b) New Delhi
    c) Mumbai   d) Chennai

38. The city where the first teaching robot in India, Eagle 2.0 was launched.
    a) Chennai   b) Hyderabad
    c) Bangalore   d) Mumbai

39. To measure the thermal changes of a body we use ....
    a) Thermometer
    b) Calorimeter
    c) Infra-red thermometer
    d) Stethoscope

40. C++ first appeared in ....
    a) 1979   b) 1983   c) 1985   d) 2020

41. The letters of the words in the options have been jumbled up, find out the word?
    The study of god
    a) GINOLIRE   b) LYOTEHGO   c) GOYELOC   d) OYGBOIL

42. Consider the given arrangement of letters with their respective numbers. Choose the best option with the structure which describes a meaningful word.
    N L I B D
    a) 2 3 4 5 1   b) 4 5 3 2 1   c) 3 5 4 1 2   d) 4 2 3 1 5

43. Choose the synonym of the given word.
    Ecstasy
    a) Fantasy   b) Apathy   c) Euphoria   d) Depression

44. Choose the correct antonym from the options given.
   Conflict
   a) Combat   b) Accord
   c) Strife   d) Struggle

45. choose the correct option and fill in the blanks to make a meaningful sentence.
   If you had supported me, I ……………………………… happy.
   a) Would be   b) Will be
   c) Will have been   d) Would have been

46. Choose the correct verb from the options.
   Where ………………… you yesterday?
   a) Did   b) Was
   c) Were   d) Have been

Read the following passage and choose the correct answer to the questions from the options given below.

> Andamans have been surrounded in mystery for centuries due to their inaccessibility and hostile tribes. Large areas of islands have been set aside as restricted zone leaving these Stone Age people in peace and their cultures intact. History of the island is not well recorded. The British under the East India Company established their first colony in 1789 and the first penal settlement in 1858 by Dr. J.P Walker. Floating in splendid isolation, east of the mainland, is the archipelago of 556 Emerald islands, islets and rocks known as the Andaman and Nichobar islands. It is spread over a distance of nearly 700kms from north to south with 37 inhabited islands. A hill range extending from Myanmar to Indonesia, these undulating islands are covered with dense forests and an endless variety of exotic flora and fauna. The rare avifauna, underwater marine life and corals, with crystal clear water and mangrove – lined creeks, offer a dream view of the rare gifts of nature. The clean environment roads, greenery as well as unpolluted fresh air attract many nature lovers.

47. Mystery surrounded the Andamans due to;
   a) the hostile tribes   b) lack of accessibility
   c) the restricted zone   d) both a and b

48. The islands are located in the ....
   a) Eastern part of India
   b) Northern part of India
   c) Southern part of India
   d) Western part of India

49. The Islands are famous for;
   a) the rare avifauna
   b) hostile tribes
   c) Underwater marine life and corals
   d) All of the above

50. 'The archipelago' here stands for
   a) The 37 inhabited islands
   b) The Emerald islands
   c) The islets
   d) the exotic flora and fauna