1. The famous Mongol military leader, who was the founder of the Yuan Dynasty in China and the grandson of Genghis Khan, was

(A) Timur

(B) Hulegu

(C) Qubilai Khan

(D) Tamerlane

2. Neutron was discovered by

(A) Chadwick

(B) Priestley

(C) Rutherford

(D) J.J. Thomson

3. Which of the following can be used as the halide component of a Friedel craft reaction ?

(A) Bromobenzene

(B) Isopropyl chloride

(C) Chloroethene

(D) Chlorobenzene

4. Which computer gives the best qualities of both digital and analog computers ?

(A) Mainframe computer

(B) Hybrid computer

(C) Supercomputer

(D) Analog computer

5. Which is the type of collision in which both the linear momentum and the kinetic energy of the system remain conserved ?

(A) Elastic collision

(B) Destructive collision

(C) Inelastic collision

(D) None of the above

6. Which of the following is the default mode for windows to start ?

(A) Normal mode

(B) Command prompt

(C) Safe mode

(D) None of these

7. Which of the following pairs represents isobars ?

(A) $^{24}Mg_{12}$ and $^{25}Mg_{12}$

(B) $^{40}K_{19}$ and $^{39}K_{19}$

(C) $^{40}K_{19}$ and $^{40}Ca_{20}$

(D) $^{3}He_{2}$ and $^{4}He_{2}$

8. The central economy in market research is solved by

(A) Supply of goods

(B) Market mechanism

(C) Planning authority

(D) Demand for goods

9. Which two nations signed a historic defense cooperation treaty on 20th August 2024 ?

(A) Australia and Japan

(B) Australia and the Philippines

(C) Australia and Indonesia

(D) Australia and New Zealand

10. When steam is converted into water, internal energy of the system

(A) Decreases

(B) Becomes zero

(C) Remains constant

(D) Increases

11. A growth of resources in an economy is shown in PP by

(A) Unchanged PPC

(B) Rightward Shift

(C) Leftward Shift

(D) None of the above

12. What is the primary aim of the Oilfields (Regulation and Development) Amendment Bill, 2024 ?

(A) Boost domestic production

(B) Decrease imports

(C) Reduce energy security

(D) Increase imports

13. Which of the following is an example of utility ?

(A) Operating system

(B) Antivirus

(C) Word

(D) Data Recovery

14. The concept of "terra nullius" was used by European colonizers to justify

(A) Slave trade

(B) Establishment of trading posts

(C) Land appropriation from indigenous people

(D) Forced religious conversion

15. Which of the following is true for OHRC with respect to the moon ?

(A) Orbital Height Round Circle

(B) Orientational High Resolving Camera

(C) Orbital Highly Resolution Circle

(D) Orbiter High Resolution Camera

16. The variable declared inside the function is called a variable

(A) local

(B) external

(C) global

(D) none of the above

17. A sequence of statements contained within a pair of braces and is called a

(A) Branch

(B) Block

(C) Blob

(D) Brick

18. The force per unit charge is known as

(A) Electric potential

(B) Electric space

(C) Electric field

(D) Electric current

19. By which Amendment, the age of retirement of High Court Judges increased from 60 to 62 years ?

(A) 15th Amendment

(B) 20th Amendment

(C) 18th Amendment

(D) 16th Amendment

20. Isotopes of an element have

(A) Similar chemical and physical properties

(B) Similar physical but different chemical properties

(C) Similar chemical but different physical properties

(D) Different chemical and physical properties

21. A Parliamentary Executive means

(A) Executive elected by the Parliament

(B) Executive that is dependent on support of the majority in the Parliament

(C) Where the Parliament functions as the Executive

(D) Executive where there is a Parliament

22. What happens to the kinetic energy of the emitted electrons when the light is incident on a metal surface ?

(A) It varies with the light intensity

(B) It varies irregularly

(C) It varies with the speed of light

(D) It varies with the frequency of light

23. The pH of a solution of hydrochloric acid is 4. The molarity of the solution is

(A) 0.4

(B) 0.04

(C) 0.0001

(D) 4.0

24. Which computer exist in a wide range of size and power ?

(A) Embedded computers

(B) Special purpose computer

(C) General purpose computer

(D) Microcomputer

25. What is the total number of districts in Ladakh after the recent creation of five new districts ?

(A) 9

(B) 5

(C) 6

(D) 7

26. Which among the following is a scalar quantity ?

(A) Mass

(B) Velocity

(C) Momentum

(D) Force

27. The volume occupied by a single gas in a mixture at the same temperature and pressure is referred to as the single-gas volume

(A) Partial volume

(B) Total volume of a gas mixture

(C) Absolute volume

(D) None of the above

28. The famous ancient Indian ruler who embraced Buddhism and promoted its spread was

(A) Asoka

(B) Ashurbanipal

(C) Harsha

(D) Chandragupta Maurya

29. The unit of spring constant is

(A) Nm^{-2}

(B) Ns^{-2}

(C) Ns

(D) Nm^{-1}

30. Which drugs were banned by the Central Government on August 21, 2024 ?

(A) Fixed Dose Combinations

(B) Multivitamins only

(C) Antibiotics only

(D) Painkillers only

31. Manika Batra is related to which sports ?

(A) Cricket

(B) Shooting

(C) Table Tennis

(D) Badminton

32. The first electronic computer developed in which year ?

(A) 1946

(B) 1846

(C) 1876

(D) 1966

33. The number of significant figures in 6.02×10^{23} is

(A) 3

(B) 26

(C) 4

(D) 23

34. What is another name for opportunity cost in economics ?

(A) Marginal Cost

(B) Economic Cost

(C) Total Cost

(D) Economic problem

35. The reaction rate constant can be defined as the rate of reaction when each reactant's concentration is

(A) Unity

(B) Infinite

(C) Doubled the initial concentration

(D) Zero

36. Which of the following can be used as valid variable identifier(s) in Python ?

(A) salute

(B) global

(C) question

(D) total

37. Which organization overseas the India Semiconductor Mission (ISM) ?

(A) Department of Industry

(B) National Research Council

(C) Digital India Corporation

(D) Ministry of Electronics

38. According to Lewis concept, an acid is

(A) electron pair donor

(B) proton acceptor

(C) electron pair acceptor

(D) proton donor

39. A cricket ball is thrown at speed of 28 ms^{-1} in direction 30° above the horizontal. Calculate the time taken by the ball to return the same level.

(A) 2.2 s

(B) 3.5 s

(C) 2.9 s

(D) 2.0 s

40. What is the name of India's first privately developed rocket ?

(A) Skyroot

(B) Bazoomq

(C) Prarambh

(D) Vikram-S

41. The position of an object moving along x-axis is given by $x = a + bt^2$ where $a = 8.5$ m, $b = 2.5$ ms^{-2} and t is measured in seconds. What is the average velocity between t = 2.0 s and t = 4.0 s ?

(A) 15 ms^{-1}

(B) 20 ms^{-1}

(C) 11 ms^{-1}

(D) 10 ms^{-1}

42. Which point can be considered as difference between string and list ?

(A) Mutability

(B) Accessing individual elements

(C) Indexing and Slicing

(D) Length

43. The significant figures in 0.00051 are

(A) 3

(B) 26

(C) 2

(D) 5

44. Who gives the instruction to the computer to for performing any kind of action ?

(A) Selectional

(B) Statement Continue

(C) Sequence

(D) Iteration

45. Which Athlete won two gold medals at the Paris 2024 Paralympic Games ?

(A) Avani Lekhara

(B) Manish Narwal

(C) Mona Agarwal

(D) Mariyappan Thangavelu

46. The dimension of angular impulse is

(A) $[M^{-1}L^{2}T^{-1}]$

(B) $[M^{0}LT^{0}]$

(C) $[M^{-2}LT^{0}]$

(D) $[ML^{2}T^{-1}]$

47. While appointing the Prime Minister, the President selects

(A) Leader of the largest party in the alliance which secures a majority in the Lok Sabha

(B) Leader of the alliance or party that has the support of the majority in Lok Sabha

(C) The leader of the largest party in the Rajya Sabha

(D) Leader of the largest party in the Lok Sabha

48. The photoelectric effect is based on the law of conservation of

(A) Momentum

(B) Angular momentum

(C) Mass

(D) Energy

49. Which States have pledged to promote peace and resolve their border dispute as of August 9, 2024 ?

(A) Maharashtra and Gujarat

(B) Punjab and Haryana

(C) Uttar Pradesh and Bihar

(D) Mizoram and Assam

50. In which year, the 42nd Amendment took place ?

(A) 1990

(B) 1992

(C) 1998

(D) 1976