PHYSICS

1. A 4 Ω resistance wire is doubled by folding it, the new resistance is
    (A) 1Ω (B) 2Ω
    (C) 3Ω (D) None of these

2. Which of the following terms does not represent electrical power in a circuit:
    (A) I^2R (B) IR^2
    (C) VI (D) V^2/R

3. In a vernier calliper if 10 vernier scale divisions is equal to 8 main scale divisions (m.m.), then what is the least count of vernier calliper?
    (A) 0.2mm   (B) 0.1 mm
    (C) 0.8mm   (D) 0.01 mm

4. If initial velocity of an object is 'u' and acceleration is 'a' then find the distance travelled in n^{th} second.

    (A) $S_n = un + \dfrac{an^2}{2}$ (B) $S_n = un + an^2$

    (C) $S_n = u + \dfrac{a}{2}(2n + 1)$ (D) $S_n = \left(u + \dfrac{a}{2}\right)n^2$

5. What is the temperature which is identical in both Celsius and Fahrenhite temperature scale?
    (A) $-40°$ (B) $-4°$
    (C) $0°$ (D) none of the above

6. If a person goes from town A to town B by a speed of 50 km/h and comes back with a speed of 150 km/h then average speed of the person is
    (A) 100 km/h   (B) 75 km/h
    (C) 0 km/h   (D) 200 km/h

7. Angle of elevation of pole star observed from any where on the Earth is approximately equal to
    (A) longitude of the place   (B) latitude of that place
    (C) constant   (D) both longitude and latitude

8. If 3 resistances R_1, R_2 and R_3 are connected in series and is parallel then their equivalent resistances are R_S and R_p respectively then correct relationship is ($R_1 > R_2 > R_3$)

    (A) $R_s < R_3, R_P > R_1$ (B) $R_s = R_1 + R_2 + R_3, R_P = \dfrac{R_1^2 + R_2^2 + R_3^2}{R_1 + R_2 + R_3}$

    (C) $R_S < R_P$ (d) $R_S > R_1, R_P < R_3$

9. Between which 2 planets the orbit of Seres lies
    (A) Earth-Mars   (B) Venus-Earth
    (C) Mars-Jupiter   (D) Jupiter-Saturn

10. Dentists use to see large image of the teeth of patients using
    (A) Convex mirror   (B) Convex lens
    (C) Concave lens   (D) Concave mirror

11. A human being has a horizontal field of view of about_____ with one eye and of about_____ with both eyes
    (A) 120°, 150°   (B) 150°, 180°
    (C) 180°, 210°   (D) 210°,240°

12. To prevent electrical circuits from damage we use fuse wire of ....
    (A) high resistance and low melting point   (B) high resistance and high melting point
    (C) low resistance and low melting point   (D) low resistance and high melting point

13. Biggest planet of the solar system is
    (A) Mercury   (B) Saturn
    (C) Jupiter   (D) Uranus

CHEMISTRY

14. All the elements in a group have the -
    (A) Same valency
    (B) Different valency
    (C) Variable valency
    (D) None of these

15. The atomic number of E, F, G, H are given below, which element belongs to zero group -

Element	Atomic number
(A) E	5
(B) F	7
(C) G	10
(D) H	16

16. Which of the following compounds is bad conductor of electricity?
    (A) Ionic compound
    (B) Electrovalent compound
    (C) Covalent compound
    (D) None of these

17. The addition of oxygen to a substance is called -
    (A) Redox
    (B) Oxidation
    (C) Reduction
    (D) None of these

18. The molecular formula of Sucrose is -
    (A) CH_2O
    (B) $C_6H_{12}O_6$
    (C) $C_{12}H_{22}O_{11}$
    (D) CH_3COOH

19. Coal is a fuel-
    (A) Fossil fuel
    (B) Nuclear fuel
    (C) Bio fuel
    (D) None of these

20. Strong electrolytes is -
    (A) NH_4OH
    (B) $Ca(OH)_2$
    (C) H_2CO_3
    (D) NaCl

21. Chemical formula of Teflon is –

    (A) $(-CF_2 - CF_2-)_n$
    (B) $\left(.....CH_2 - \underset{Cl}{\overset{CH}{|}} \right)_n$

    (C) $(-CH_2 - CH_2-)_n$
    (D) None of these

22. The properties of the product are different from those of the constituents is called -
    (A) Mixture
    (B) Element
    (C) Compound
    (D) Acid

23. Which Vitamin is found in abundance in Amla?
    (A) Vitamin-A
    (B) Vitamin-C
    (C) Vitamin-B
    (D) Vitamin-D

24. Dilute solution of alkaline potassium permanganate is known as -
    (A) Bayer's reagent
    (B) Tollen's reagent
    (C) Fehling solution
    (D) Benedict solution

25. The chemical formula of Plaster of Paris is –
    (A) Calcium Sulphate [$CaSO_4$] [$CaSO_4$ ½H_2O]
    (B) Calcium Sulphate Hemihydrate
    (C) Barium Sulphate [$BaSO_4$]
    (D) None of these

26. Bromine is a –
    (A) Non-metal
    (B) Metal
    (C) Metalloids
    (D) None of these

BIOLOGY

27. The study of interaction between living organism and environment called -
(A) Ecology   (B) Phytogeography   (C) Psychology   (D) Mycology

28. In how many parts human brain is divided -
(A) 4   (B) 5   (C) 3   (D) 2

29. Chromosome number in the daughter cells after meiosis is -
(A) 1/2   (B) 1/3   (C) 1/4   (D) 1/5

30. The instrument for measuring blood pressure is called -
(A) Manometer   (C) Sphygmomanometer
(C) Barometer   (D) Potentiometer

31. The anther contains -
(A) Sepal   (B) Carpel   (C) Petal   (D) Pollen grains

32. The largest gland in human body is -
(A) Pituitarygland   (B) Liver   (C) Adrenal gland   (D) Thyroid gland

33. Which cell organelle is known as suicidal bag
(A) Ribosome   (B) Centrosome   (C) Lysosome   (D) Peroxysome

34. Plant part used as medicine of Terminalia arjuna-
(A) Leaves   (B) Fruits   (C) Bark   (D) Roots

35. Energy flow in an Ecosystem is –
(A) Unidirectional   (B) Bidirectional   (C) Multidirectional   (D) None of these

36. World Environment Day is celebrated on -
(A) 5 June   (B) 11 July   (C) 16 October   (D) 26 December

37. C_4 cycle mechanism is given by -
(A) Hill   (B) Arnan   (C) Hatch & Slack   (D) Celvin

38. Which pollutant is dangerous for Taj Mahal?
(A) Sulphur dioxide SO,   (B) Carbon dioxide CO,
(C) Carbon monooxide CO   (D) All of these

39. Which of the following is an example of Insectivorous plant -
(A) Amla   (B) Baheda   (C) Utricularia   (D) Isoetes

40. Which is prokaryotic cell amongst the following?
(A) Amoeba   (B) Bacteria   (C) Yeast   (D) Volvox

     Courtesy : NTSE

HISTORY

41. Big Bath has been found in which of the Indus valley site?
    (A) Harappa   (B) Mohenjodaro   (C) Lothal   (D) Chahnudaro

42. Which statement about the position of women in the Rig Vedic society is not true?
    (A) They enjoyed high status in the society.
    (B) Parda system and child marriages were prevalent.
    (C) They had right to higher education,
    (D) Dowry was not known.

43. When did the first urbanization take place?
    (A) In the new stone age   (B) In the Indus Valley civilization
    (C) During he Mauryan period   (D) During the Gupta period

44. Which ruler of ancient India is known as Devanam Priyadasi?
    (A) Bindusar   (B) Chandra Gupta Maurya
    (C) Ashoka   (D) Brihadatta

45. What are tripitakas?
    (A) Vedic Literature
    (B) Compilation of Buddha's sermons
    (C) Main principles of Lord Mahavira
    (D) Compilation of account of Alexander's invasion into India

46. Which ruler followed the policy of 'Blood and Iron' for strengthening administration?
    (A) Balban   (B) Rajiya
    (C) Htutmish   (D) Feroze-Shah-Tughlaq

47. Which king of the sultanate period is known as the mad sultan'?
    (A) Mohd-bin-Tughlaq   (B) Feroze-Shah-Tughlaq
    (C) Jalal-ud-din-Khilji   (D) Alauddin-Khilji

48. To which place of Madhya Pradesh is Jungle Satyagraha related?
    (A) Reewa   (B) Indore   (C) Chhatarpur   (D) Seoni

49. Who was the Governor General of India in 1857?
    (A) Dalhousie   (B) William Bentick (C) Canning   (D) Rippon

50. Who gave the slogan of Do or Die' during the Indian freedom struggle?
    (A) Vipin Chandra Pal   (B) Lala Lajpat Rai
    (C) Mahatma Gandhi   (D) Bal Gangadhar Tilak

51. What was the main objective of British in dividing Bengal?
    (A) To strengthen administrative system in Bengal
    (B) To suppress nationalist feelings
    (C) To promote nationalist feelings
    (D) To help in promotion of language and culture

52. Through which newspaper did Lala Lajpat Rai inspire the people of India to struggle for independence?
    (A) Kesari   (B) Samvad Kaumudi
    (C) Hindustan   (D) Kayastha Samachar

53. Communal electorate was first introduced through which Act?
    (A) 1773 Act   (B) 1861Act   (C) 1909Act   (D) 1919Act

54. Which Article of the Indian constitution gives a special status to the state of Jammu & Kashmir?
    (A) 370   (B) 395   (C) 368   (D) 384

55. How many times has National emergency been declared in India?
    (A) One   (B) Two   (C) three   (D) Four

GEOGRAPHY

56. Oldest mountain in India is:
    (A) Himalaya   (B) Vindhyachal   (C) Satpura   (D) Aravali

57. Where is Bharat Heavy Electricals Limited (BHEL) situated?
    (A) Sagar   (B) Bhopal   (C) Indore   (D) Jabalpur

58. Which of the following is the most important factor to determine the type of forest?
    (A) Climate   (B) Type of soil   (C) Productivity of soil   (D) Wind direction

59. Which of the following is everlasting physical resource for power generation in India?
    (A) Uranium   (B) Coal   (C) Petroleum   (D) Water

60. Madhya Pradesh is _____ largest state of India in term of area.
    (A) Second   (B) Third   (C) First   (D) Fourth

61. The leading producer of coal in India.
    (A) Jharkhand   (B) Bihar   (C) Rajasthan   (D) Andhra Pradesh

62. Thehighest rainfall in the world is received at
    (A) Chcrrapunji   (B) Mawsynram   (C) Shilong   (D) Calicut

63. Which of the following river does not fall in the Bay of Bengal-
    (A) Narmada   (B) Vanganga   (C) Mahanadi   (D) Krishna

64. Blue revolution is related to -
    (A) Fruit Production   (B) Fish Production   (C) Sheep rearing   (D) Milk Production

65. How many railway zones are there in India?
    (A) 9   (B) 6   (C) 14   (D) 15

66. Tropic of cancer does not pass through which of the following States?
    (A) Gujarat   (B) Rajasthan   (C) West Bengal   (D) Orissa

67. The Nagarjun Sagar Dam is located on the river-
    (A) Godavari   (B) Krishna   (C) Kaveri   (D) Narmada

68. Topographical Maps of India are prepared by-
    (A) Geological Survey of India   (B) Archaeological Survey of India
    (C) Survey of India   (D) National Geographical Survey of India

69. What is Bailadila famous for?
    (A) Bauxite   (B) Iron Ore   (C) Copper   (D) Coal

70. In which region is the method of making contour bands used for soil conservation?
    (A) Delta region   (B) Plateau region   (C) Hills   (D) Plains

Courtesy : NTSE

CIVICS

71. In a parliamentary form of Government, real powers of the State are vested in which body?
(A) President
(B) Chief Justice of Supreme Court
(C) Prime-Minister
(D) Parliament

72. Which fundamental right of Indian Constitution has been deleted by the 44th Amendment Act?
(A) Right against exploitation
(B) Right to property
(C) Right to liberty
(D) Right to equality

73. When is 'Human Right Day' celebrated?
(A) 10th November
(B) 10th December
(C) 10th January
(D) 10th October

74. Who is known as the father of Indian Constitution?
(A) Dr. B. R. Ambedkar
(B) Mahatma Gandhi
(C) Jawaharlal Nehru
(D) Sardar Patel

75. The term of member of the Rajya Sabha is
(A) 5 years
(B) 2 years
(C) 6 years
(D) Same as that of the Lok Sabha

ECONOMICS

76. What is Barter System?
(A) Exchange of goods for dollars
(B) Exchange of goods for rupees
(C) Exchange of goods for coins
(D) Exchange of goods for goods

77. On what basis the enterprises are classified in 'Public' and 'Private' sectors?
(A) Employment conditions
(B) Nature of Economic activities
(C) Ownership of Enterprise
(D) Number of workers employed

78. In ancient times, which country was known as 'Golden Sparrow'?
(A) France
(B) New Zealand
(C) J & K India
(D) China

79. In India, the first five-year plan started from which year?
(A) 1947
(B) 1951
(C) 1948
(D) 1950

80. In which of the following sectors only services are produced?
(A) In private sector
(B) In primary sector
(C) In secondary sector
(D) In tertiary sector

MATHEMATICS

81. If in a right angled triangle ABC, $\cos A = \dfrac{9}{41}$, then the value of cot A and cosecA will be

(A) $\dfrac{40}{9}, \dfrac{40}{41}$

(B) $\dfrac{9}{40}, \dfrac{41}{40}$

(C) $\dfrac{9}{41}, \dfrac{41}{9}$

(D) $\dfrac{9}{40}, \dfrac{40}{41}$

82. In $\triangle ABC, if \angle B = 90^\circ, AB = 5, BC = 12$, then sin C= ....

(A) $\dfrac{12}{13}$

(B) $\dfrac{5}{13}$

(C) $\dfrac{5}{12}$

(D) $\dfrac{13}{5}$

83. $(\sec\theta + \tan\theta)(1 - \sin\theta) = ...$
    (A) 0   (B) = 1
    (C) $\cos\theta$ (D) $\sin\theta$

84. If $\tan\theta = \dfrac{1}{\sqrt{3}}$, then the value of

    $\dfrac{\cosec^2\theta - \sec^2\theta}{\cosec^2\theta + \sec^2\theta}$ is

    (A) $\sqrt{3}$ (B) 1
    (C) $\dfrac{1}{\sqrt{2}}$ (D) $\sqrt{2}$

85. For what value of k, the equation $3x^2 + 2x + k = 0$ will have real roots :
    (A) $k \le \dfrac{1}{3}$ (B) $k \ge \dfrac{1}{3}$
    (C) $k = \dfrac{2}{3}$ only   (D) None of the above

86. The product of Meera's age 5 years ago and her age 8 years later is 30. Her present age is –
    (A) 11 years   (B) 9 years
    (C) 7 years   (D) 5 years

87. The area of right angled triangle is 96sq mtr. If base is three times the altitude, the length of base is –
    (A) 24 mtr.   (B) 20 mtr.
    (C) 18 mtr.   (D) 15 mtr.

88. What is the probability that a leap year has 53 Sundays?
    (A) $\dfrac{7}{53}$ (B) $\dfrac{7}{52}$
    (C) $\dfrac{1}{7}$ (D) $\dfrac{2}{7}$

89. One card is drawn at random from a deck of 52 cards. The probability of getting a face card is
    (A) $\dfrac{3}{13}$ (B) $\dfrac{1}{26}$
    (C) $\dfrac{3}{26}$ (D) $\dfrac{4}{13}$

90. The perimeter of the rectangular field is 206 meter. What will be its area if its length is 23 meter more than its breadth?
    (A) 1520 meter^2 (B) 2420 meter^2
    (C) 2480 meter^2 (D) 2520 meter^2

91. The total surface area of a cube is 864 cm^2. Its volume is :
    (A) 3456 cm^3 (B) 432 cm^3
    (C) 1728 cm^3 (D) 3466 cm^3

92. The length of the longest pole that can be kept in a room of size 12m × 9m × 8m is :
    (A) 29m   (B) 17 m
    (C) 21m   (D) 19 m

93. Which point on x-axis is equidistant from the point A(7,6) and B(-3,4)?
    (A) (0, 4)   (B) (–4, 0)
    (C) (3, 0)   (D) (0, 3)

94. The point A(0, 6), B(-5, 3) and C(3, 1) are the vertices of a triangle which is :
(A) Isosceles   (B) Equilateral
(C) Rightangled   (D) None of these

95. The x-axis divides the line joining A(2, –3) and B(7, 4) in the ratio :
(A) 2 : 1.5   (B) 2 : 3
(C) 3 : 2   (D) 1 : 2

96. If A and B are two non empty sets, then $A \cup B =$
(A) $\{x \mid x \in A \text{ and } x \in B\}$ (B) $\{x \mid x \in A \text{ or } x \in B\}$
(C) $\{x \mid x \in A \text{ and } x \notin B\}$ (D) $\{x \mid x \notin A \text{ and } x \in B\}$

97. If A is a non empty set, ϕ is empty set $\cup$ and is universal set, then $A \cap \phi =$
(A) $\cup$ (B) a
(C) ϕ (D) A'

98. Selling price of one things is $\dfrac{3}{2}$ times of its cost price. What will be the percentage of profit?
(A) $20\dfrac{1}{2}$ (B) $25\dfrac{1}{4}$
(C) $33\dfrac{1}{3}$ (D) 50

99. A sold a bicycle to B on 20% profit. B sold it to C on 25% profit. If C paid Rs. 225 for it, then what was the cost price of bicycle to A?
(A) 110   (B) 125
(C) 120   (D) 150

100. The height of a cylinder is 14 cm and its curved surface area is 264 cm^2, the volume of cylinder is :
(A) 308 cm^3 (B) 396 cm^3
(C) 1232 cm^3 (D) 1848 cm^3