

NIPER MODEL PAPER - 4

1. The deficiency of the following vitamins causes creatinuria

- (a) Vitamin E
- (b) Vitamin K
- (c) Vitamin A
- (d) Vitamin B16

2. Energy city of India

- (a) Korba
- (c) Vitamin A
- (b) Bhubaneswar
- (d) Ranchi

3. Choose the missing number in series

6, 12, 20, 30, 42, 56, (e) Jamsedpur

- (a) 72
- (b) 94
- (c) 70
- (d) 71

4. Nobel laureate of peace in 2014

- (a) Malala Yousafzai
- (b) Kailash Satyarthi
- (c) Both (a) and (b)
- (d) Barak Obama

5. Genetic information of nuclear DNA is transmitted to the site of protein synthesis

- (a) rRNA
- (b) mRNA
- (c) URNA
- (d) Polysomes

6. The power house of the cell is

- (a) Nuckus

(b) Cell membrane

- (c) Mitochondria
- (d) lysosomes

7. The carbohydrate reserved in human body is

- (a) Starch
- (b) Glucose
- (e) Glycogen
- (d) Inulin

8. How many protons, neutrons and electrons are there in an atom of ^{19}F (29)

- (a) 9 protons, 9 neutrons and 9 Electrons
- (b) 19 protons, 10 neutrons and 19 electrons
- (c) 9 protons, 10 neutrons and 9 Electrons
- (d) None of these

9. All proteins contain the

- (a) Same 20 amino acids
- (b) Different amino acids
- (c) 300 Amino acids occurring in nature
- (d) Only a few amino acids

10. Receptors are usually

- (a) lipids
- (b) proteins
- (c) DNA
- (d) Nucleotide

11. Acrobic test is given by

- (a) Cholesterol

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(b) Glycerol

(c) Glycosides

(d) Sphingol

12. Finger print region or bending vibration occur in which of the following range

(a) 1500-400

(b) Below 400

(c) 1500-4000

(d) Above 1500

13. Seliwanoff's test is positive in the presence of

(a) Glucose

(b) Fructose

(c) Galactose

(d) Mannose

14. The G in Park-G stands for

(a) Galactose

(b) Glycogen

(c) Glycon

(d) Glucose

15. CTD means

(a) Common technical document

(b) Cover technical document

(c) Common technical dose

(d) common therapeutic dose

16. Choose the anticancer alkylating drug, a derivative of chloroethylamine

(a) Methotrexate

(b) Cisplatin

(c) Cyclophosphamide

(d) Carmustine

17. Which is a covalent crystal

(a) I₂

(b) CO₂

(c) SiO₂

(d) KCl

18. Which vector is mostly used in crop improvement?

(a) Plasmid

(b) Cosmid

(c) Phasmid

(d) Agrobacterium .

19. Which of the following bonds absorb in the region 2300-2000 cm⁻¹

(a) C=C

(b) C-C

(c) C-O

(d) C=N

20. Hemoglobin carries

(a) Oxygen

(b) CO

(c) Oxygen and CO₂

(d) None of these

21. The number of moles of solute present in 1 kg of a solvent is called its

(a) Molarity

(b) Normality

(c) Formality

(d) Molality

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22. The UV and IR techniques similar in

- (a) Principle
- (b) Wavelength
- (c) Frequency
- (d) All of these

23. The World Population Day is on the date

- (a) July 11
- (b) December 10
- (c) October 4
- (d) May 31

24. Extensive property of a system is/are

- (a) Mass
- (b) Volume
- (c) Enthalpy
- (d) All of these

25. Which of the following has the maximum boiling point

- (a) H₂O
- (b) H₂S
- (c) H₂Se
- (d) H₂Te

26. Free Radical act as

- (a) Electrophile
- (b) Nucleophile
- (c) Both (a) and (b)
- (d) None of these

27. Mitochondria contains

- (a) DNA
- (b) RNA
- (c) Enzymes
- (d) All of these

28. One calorie equal to how many joules

- (a) 4.18
- (b) 4.78
- (c) 5.18
- (d) 5.78

29. Which of the following is the simplest member of organic compounds

- (a) Formic acid
- (b) Formaldehyde
- (c) Methane
- (d) Methanol

30. A man walking at the rate of 5 km/hr crosses a bridge in 15 minutes. What is the length of the bridge (in meters)

- (a) 1250
- (b) 1280
- (c) 1320
- (d) 1340

31. Who is father of Indian Pharmacy

- (a) Aristotle
- (b) Prof. William
- (c) Prof. M.L. Shroff
- (d) Charak

32. Normal blood glucose level is

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- (a) 50-80 mg/dl
- (b) 50-100 mg/dl
- (c) 80-100 mg/dl
- (d) 80-300 mg/dl

33. Which one of the following elements is radioactive

- (a) ^{13}C
- (b) ^{81}Br
- (c) ^{32}P
- (d) ^2H

34. DNA replicates during cell cycle in

- (a) G1-phase
- (b) S-phase
- (c) G2-phase
- (d) M-phase

35. Optic fibers are mainly used for which of the following

- (a) Communication
- (b) Weaving
- (c) Musical Instruments
- (d) Food Industry

36. Full form of ICICI bank

- (a) Industrial Commission and Investment Corporation of India
- (b) Industrial Credit and Investment Corporation of India
- (c) International Credit and Investment Corporation of India
- (d) Instant Credit and Investment Corporation of India

37. Number of isomers of CH_4 is

- (a) 2
- (b) 3
- (c) 4
- (d) Isomerism not exist

38. Which cells produce the pigment that contributes to hair colour?

- (a) Keratinocytes
- (b) Melanocytes
- (c) Langerhans cells
- (d) Merkel cells

39. All of the following are prodrug except

- (a) Lisinopril
- (b) Enalapril
- (c) Perindopril
- (d) Ramipril

40. Universal detector among the following in Gas Chromatography is

- (a) FID
- (b) TCD
- (c) ECD
- (d) NPD

41. Chairman of IPL 2022 is

- (a) Ranjib Bansal
- (b) Rajeev Shukla
- (c) Shashitharur
- (d) Arun Singh Dhumal

42. The leaves of *Tylophora indica* are used in the treatment of

- (a) Asthma

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- (b) General debility
- (c) Cough
- (d) Itch

43. Which of the following is not crystal habits

- (a) Acicular
- (b) Columnar
- (c) Shield
- (d) Blade

44. A cell duplicates its chromosomes during the phase

- (a) S
- (b) G1
- (c) G2
- (d) Gm

45. Inner circumference of a 7 m wide circular race track, is 220 m. find the radius of our circle

- (b) 42
- (c) 40
- (d) 30

46. The gene of sickle cell anemia is inherited by

- (a) Blood cells
- (b) Bone cells
- (c) Sex chromosomes
- (d) Autosomes

47. Select the mechanism of barbiturate action (at hypnotic doses).

- (a) Increasing the duration of the GABA-gated Cl⁻ channel opening

- (b) Directly activating the chloride channels
- (c) Increasing the frequency of Cl⁻ channel opening events
- (d) All of the above

48. Dengue fever is caused by

- (a) Bacteria
- (b) Virus is secreted by
- (c) Fungi
- (d) Rickettsia

49. Salivary lipase

- (a) Parotid glands
- (b) Sub maxillary glands
- (c) Sub mandibular glands
- (d) None of these

50. The drugs and cosmetics acts 1940 contains following number of schedule to the

- (a) 1
- (b) 20
- (c) 5
- (d) 2