ANM & GNM 2024

LIFE SCIENCE

Category – I (Q. 1 to 30)

(Carry 1 mark each. Only one option is correct. Negative mark:- $\frac{1}{4}$)

Q1. When Insulin is produced in the laboratory, the process is called

(a) Genetic Engineering

(b) Micropropagation

(c) Bioassay

(d) All of these

Q2. In our body, fat functions as the solvent of

(a) Tocopherol

(b) Thiamine

(c) Niacin

(d) Riboflavin

Q3. Which of the following nitrogenous base is not present in DNA?

(a) Thymine

(b) Uracil

(c) Adenine

(d) Cytosine

Q4. Which of the following digestive enzymes can digest protein in the acidic condition?

(a) Trypsin

(b) Pepsin

(c) Erepsin

(d) Renin

Q5. Which of the following is not formed from Haemoglobin within our liver?

(a) Haeme

(b) Bilirubin

(c) Biliverdin

(d) Lecithin

Q6. At present, how many nuclear power plants are there in India?

(a) 3

(b) 4

(c) 5

(d) 6

Q7. Find out the correct order.

(a) Stimuli → Receptor → Motor neuron → Nerve centre → Sensory neuron → Effector → Response

(b) Stimuli → Receptor → Sensory neuron → Nerve centre → Motor neuron → Effector → Response

(c) Stimuli → Effector → Motor neuron → Nerve centre → Sensory neuron → Receptor → Response

(d) Stimuli → Effector → Sensory Neuron → Nerve centre → Motor neuron → Receptor → Response

Q8. Which is not a check point of the cell cycle ?

(a) G1 → S

(b) G2 → M

(c) M→G1

(d) S

Q9. Which of the following constitute a food chain ?

(a) Grass, wheat and mango

(b) Grass, goat and human

(c) Goat, cow and elephant

(d) Grass, fish and goat

Q10. Which of the following is not a part of the female reproductive system in human beings?

(a) Ovary

(b) Uterus

(c) Vas deferens

(d) Fallopian tube

Q11. Which of the following group is not present in the amino acid?

(a) $-COOH$

(b) $-OH$

(c) $-NH_2$

(d) $-CN$

Q12. Thyroxin is secreted from which of the following glands?

(a) Pituitary

(b) Adrenal

(c) Testis

(d) Thyroid

Q13. Which of the following is associated with schwann cell?

(a) Dendrite

(b) Axon

(c) Cell body

(d) Synapse

Q14. Which one of the following is the vestigial organ of human?

(a) Pancreas

(b) Liver

(c) Appendix

(d) Gall-bladder

Q15. Number of air-sacs present in pigeon are

(a) 7

(b) 7 pair

(c) 9 pair

(d) 9

Q16. Which one is nitrogen fixing bacteria?

(a) E. Coli

(b) Bacillus

(c) Rhizobium

(d) Helicobacter

Q17. Which one of the following causes biomagnification?

(a) Air-pollution

(b) Water-pollution

(c) Light-pollution

(d) Sound-pollution

Q18. Mendel is popular for postulating

(a) Cell Theory

(b) Laws of Inheritance

(c) Linkage Theory

(d) Origin of Species

Q19. Which is the natural auxin?

(a) 2,4-D

(b) NAA

(c) IAA

(d) IPA

Q20. Which of the following parts of the brain regulate body balance?

(a) Cerebrum

(b) Cerebellum

(c) Hypothalamus

(d) Pons

Q21. Which of the following compounds is found in the cell wall of fungi ?

(a) Cellulose

(b) Chitin

(c) Hemicellulose

(d) Pectin

Q22. A cross between unlike organisms is called

(a) Test cross

(b) Back cross

(c) Heterosis

(d) Hybridization

Q23. Which protein is found in the core of a nucleosome?

(a) Histone

(b) Albumin

(c) Globulin

(d) Collagen

Q24. Which of the following plant group is not spermatophyte?

(a) Gymnosperms

(b) Monocots

(c) Pteridophytes

(d) Dicots

Q25. Which agglutinogen and which agglutinin are present in the blood group B?

(a) B and Anti B

(b) A and Anti A

(c) B and Anti A

(d) A and Anti B

Q26. Animals which lay eggs are called-

(a) Viviparous

(b) Carnivorous

(c) Oviparous

(d) None of these

Q27. Find out the correct match from the following:

(a) Pancreas - Mixed gland

(b) Spleen - Endocrine gland

(c) Ovary - Exocrine gland

(d) Skin - Mixed gland

Q28. When number of a particular herbivore increase in a forest which type of struggle can be found for food?

(a) Intraspecific

(b) Interspecific

(c) Both (a) and (b)

(d) None of these

Q29. The amount of DNA becomes 4C from 2C in which subphase of interphase of a cell cycle?

(a) G1

(c) G2

(b) S

(d) G_0

Q30. We feel bodyache after vigorous exercise due to

(a) accumulation of urea in our body.

(b) accumulation of lactic acid in our muscle.

(c) accumulation of ethyl alcohol in our blood.

(d) accumulation of glucose in our muscle.

LIFE SCIENCE

Category – II (Q. 31 to 40)

(Carry 2 mark each. One or more option is correct. No negative marks.)

Q31. What is the age of Adolescence in human according to WHO?

(a) 10-20 years

(b) 10-19 years

(c) 13-21 years

(d) 12-21 years

Q32. Which of the following matches is correct?

(a) Monocular vision – Man

(b) Binocular vision - Horse

(c) Monocular vision - Horse

(d) Binocular vision-Man

Q33. Regeneration seen in

(a) Amoeba

(b) Octopus

(c) Hydra

(d) Planaria

Q34. Which are exotic species introduced to India and cause harm ?

(a) Dalbergia Sissoo

(b) Parthenium hysterophorus

(c) Eichoria Crassipes

(d) None of these

Q35. Cadmium compound can cause

(a) skin cancer in human.

(b) lung cancer in human.

(c) brain cancer in human.

(d) liver cancer in human.

Q36. In which of the following places conservation of Tiger Project is running?

(a) Jaldapara

(b) Bandhavgarh

(c) Kanha

(d) Vitarkanika

Q37. Metabolic disorders depend upon the functioning of

(a) Heart

(b) Muscle

(c) Liver

(d) Pancreas

Q38. Which are the living permanent tissues in the matured condition ?

(a) Schlerenchyma

(b) Parenchyma

(c) Chlorenchyma

(d) Collenchyma

Q39. Oxygeneted blood enters the heart through

(a) Right Auricle

(b) Right Ventricle

(c) Left Auricle

(d) Left Ventricle

Q40. The process of engulfing food and water by Amoeba is called

(a) Engulfing and Absorption

(b) Phagocytosis and Pinocytosis

(c) Both the above are correct

(d) None is correct

PHYSICAL SCIENCE

Category – I (Q. 41 to 55)

(Carry 1 mark each. Only one option is correct. Negative mark:- $\frac{1}{4}$)

Q41. Which one among the following is equal to 1A?

(a) VΩ

(b) $V^{-1}\,\Omega$

(c) Cs

(d) Cs^{-1}

Q42. Main component present in denatured spirit with ethyl alcohol is

(a) Methyl alcohol

(b) Naphthalene

(c) Vinegar

(d) None of these

Q43. A 50 kg block is kept on the horizontal floor, the reaction on the block would be

(take g=10m/s²)

(a) 250 N

(b) 50 N

(c) 500 N

(d) 1000 N

Q44. In the following table select the correct matching between the left and right column:

Left Column	Right Column
1. 1 mole NH_3	A. 2
2. No. of moles in 44.8L H_2	B. 176 g
3. No. of moles in 140g N_2	C. 17g
4. Wt. of 89.6L of CO_2	D. 5

(a) 1- C, 2 - A, 3 - D, 4 - B

(b) 1 – B, 2 - C, 3 - D, 4 - A

(c) 1 - D, 2 - A, 3 - D, 4 - C

(d) None of these

Q45. A body gets accelerated

(a) when an unbalanced force acts on it.

(b) when a balanced force acts on it.

(c) when there is no effective force on it.

(d) None of these

Q46. Which of the following is having identical electronic configuration like He?
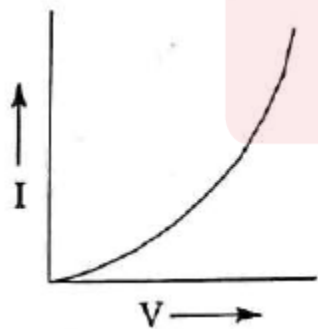
(a) Li^+

(b) Na^+

(c) Li^{++}

(d) H^+

Q47. Cold and dilute nitric acid produces hydrogen gas when it reacts with a particular metal; name of the metal is

(a) Zn

(b) Cu

(c) Fe

(d) Mg

Q48. The order of reducing power of the halogen is

(a) I > Br > C > F

(b) Cl > F > Br > I

(c) F < Cl < Br < I

(d) F > C > Br > I

Q49.

The V-I graph of a substance is given; the substance is a

(a) Metallic conductor

(b) Ohmic Conductor

(c) Non-Ohmic conductor

(d) An electrolyte

Q50. Vinegar is the aqueous solution of acetic acid in which the percentage of acid is usually

(a) 5-8%

(b) 9-12%

(c) 10%

(d) less than 5%

Q51. In case of electrolysis the oxidation occurs at

(a) cathode

(b) anode

(c) both in cathode and anode

(d) None of these

Q52. 'eV' is the unit of

(a) Potential

(b) Power

(c) Work

(d) Ionisation energy

Q53. An object is kept at a distance of 20 cm from a concave mirror having focal length 10 cm; the size of the image would be

(a) diminished with respect to the object.

(b) magnified with respect to the object.

(c) equal to the size of the object.

(d) can't be said.

Q54. A nurse finds the increase in temperature of patient as 4.5° in Farenheit scale; the equivalent increase in Celcius scale is

(a) 8.1°

(b) 40.1°

(c) 2.9°

(d) 2.5°

Q55. The permissible limit of pH in drinking water is

(a) 6-8

(b) 6.5-8.5

(c) 7.5-9.5

(d) 5.5-8.5

PHYSICAL SCIENCE

Category – II (Q. 56 to 60)

(Carry 2 mark each. Only one option is correct. No negative mark.)

Q56. The dimensional formula of latent heat is

(a) L^2T^{-2}

(b) $L^{-2}T^2$

(c) LT^2

(d) L^2T

Q57. $_{92}U^{238}$ emits an $\propto$ particle. The product has mass number and atomic number-

(a) 236 and 92

(b) 234 and 90

(c) 238 and 90

(d) 236 and 90

Q58. Sound wave is a

(a) Transverse elastic wave.

(b) Longitudinal elastic wave.

(c) Electromagnetic wave.

(d) None of these

Q59. When a 100 W bulb glows for 1 min. the energy consumed by it is

(a) 1 kJ

(b) 100 J

(c) 6 kJ

(d) 600 J

Q60. A car is moving with an acceleration of 5 m/s²; if an identical car is attached to that car, the resultant acceleration would be

(a) 5 m/s²

(b) zero

(c) 2.5 m/s²

(d) 1.25 m/s²

ENGLISH

Category – I (Q. 61 to 75)

(Carry 1 mark each. Only one option is correct. Negative mark:- $\frac{1}{4}$)

Q61. Choose the word which means the same as 'Awesome".

(a) Surprising

(b) Excellent

(c) Very bad

(d) Poor

Q62. Choose the word which is opposite in meaning to 'Active'.

(a) Brave

(b) Ugly

(c) Lazy

(d) Coward

Q63. Out of the four alternatives given, select a similar sentence in indirect speech:

She said to me, "You will reach there at 12 noon tomorrow."

(a) She asked me to reach there by 12 noon the previous day.

(b) She told me to reach there by 12 noon the following day.

(c) She wants me to reach there by midday.

(d) I was directed by her to reach there by 12 noon that day.

Q64. Fill in the blank with the appropriate option given below in the following sentence:

"I will look _____ the meaning of the word in the dictionary."

(a) at

(b) into

(c) up

(d) out

Q65. "He studies in _____ university in Delhi."

In the above sentence, which of the following options may be correctly used?

(a) the

(b) a

(c) an

(d) those

Q66. Choose the alternative that correctly fills up the blank in the given sentence:

"The wounded soldier was _____ on the stretcher."

(a) lay

(b) lied

(c) lain

(d) lie

Q67. Choose the correct alternative:

"The patient _____ before the doctor came."

(a) died

(b) had died

(c) die

(d) dies

Q68. Select the correctly spelt word:

(a) Aedmirable

(b) Admerable

(c) Admireable

(d) Admirable

Q69. Select the correctly spelt word:

(a) Chuse

(b) Choose

(c) Cheese

(d) Choos

Q70. Select the correct alternative to complete the sentence meaningfully:

"A bad workman _____ with his tools."

(a) quarrels

(b) quarrel

(c) quarreling

(d) quarel

Q71. Choose the correct alternative to complete the sentence meaningfully:

"As you _____ so you reap."

(a) sown

(b) sowed

(c) sow

(d) will sow

Q72. Choose the word which has nearly the same meaning as "Possess".

(a) Invite

(b) Wealth

(c) Own

(d) Claim

Q73. Choose the word which has just the opposite meaning of 'Finish'.

(a) Start

(b) Stop

(c) Complete

(d) Turn

Q74. Choose the noun form of 'National".

(a) Nation

(b) Nationalize

(c) Nationally

(d) Nationalized

Q75. A person who cannot see is called

(a) Deaf

(b) Dumb

(c) Lame

(d) Blind

MATHEMATICS

Category – I (Q. 76 to 85)

(Carry 1 mark each. Only one option is correct. Negative mark:- $\frac{1}{4}$)

Q76. If $a + \frac{1}{a} = 1$, then the value of $a^3 + 1$ is

(a) 0

(b) 1

(c) a

(d) a^3

Q77. Sum of the roots of quadratic equation $2x^2 - 5x + 3 = 0$ is

(a) 2

(b) 5

(c) 3

(d) $\frac{5}{2}$

Q78. The value of $\log_9 27 - \log_{27} 9$ is

(a) 0

(b) $\frac{3}{2}$

(c) $\frac{5}{6}$

(d) None of these

Q79. If the area of a circle is 616 cm², then the value of the diameter of the circle is

(a) 14 cm

(b) 28 cm

(c) 7 cm

(d) 27 cm

Q80. If the volume and curved surface area of a right circular cylinder be equal, then the radius of the cylinder is

(a) 2 unit

(b) 3 unit

(c) 4 unit

(d) 5 unit

Q81. The principal amount which becomes Rs. 121 in 2 years at 10% compound interest, will be

(a) Rs. 50

(b) Rs. 25

(c) Rs. 75

(d) Rs. 100

Q82. If $\frac{a}{3} = \frac{b}{4} = \frac{c}{7}$, then the value of $\frac{a+b+c}{c}$ is

(a) 1

(b) 2

(c) 3

(d) 7

Q83. If the area of the whole surface of a cube is 216 cm³, then length of its diagonal is

(a) 2√3 cm

(b) 4√3 cm

(c) 6√3 cm

(d) 8√3 cm

Q84. If $\sin\theta \cos\theta = \frac{1}{2}$, then the value of $\sin\theta - \cos\theta$ is

(a) 0

(b) 1

(c) $\frac{1}{2}$

(d) 2

Q85. A person bought some apples and if cost price of 5 apples be Rs. 6 and the person sells all as 2 apples for Rs. 3, then profit will be

(a) 30%

(b) 20%

(c) 25%

(d) 10%

GENERAL KNOWLEDGE

Category – I (Q. 86 to 95)

(Carry 1 mark each. Only one option is correct. Negative mark:- $\frac{1}{4}$)

Q86. The largest lake in the world is _____.

(a) Ontario

(b) Caspian Sea

(c) Lake Superior

(d) Baikal

Q87. The novel "War and Peace' was written by _____.

(a) Ivan Turgenev

(b) Anton Chekhov

(c) Leo Tolstoy

(d) Fyodor Dostoevsky

Q88. Who was the First Prime Minister of India?

(a) Indira Gandhi

(b) Motilal Nehru

(c) Pandit Jawaharlal Nehru

(d) Rajendra Prasad

Q89. The capital of Japan is _____.

(a) Seoul

(b) Bangkok

(c) Beijing

(d) Tokyo

Q90. The longest river in the world is _____.

(a) Amazon

(b) Mississippi

(c) Nile

(d) Yangtze

Q91. _____ gas is used to extinguish fires.

(a) Nitrogen

(b) Carbon dioxide

(c) Oxygen

(d) Hydrogen

Q92. How many states are there in India?

(a) 28 states

(b) 24 states

(c) 29 states

(d) 25 states

Q93. _____ is the national bird of India.

(a) Swan

(b) Peacock

(c) Sparrow

(d) Eagle

Q94. How many years are there in One Millennium?

(a) 100 years

(b) 2000 years

(c) 10000 years

(d) 1000 years

Q95. _____ chemical element is designated as "Hg'.

(a) Copper

(b) Silver

(c) Tin

(d) Mercury

LOGICAL REASONING

Category – I (Q. 96 to 100)

(Carry 1 mark each. Only one option is correct. Negative mark:- $\frac{1}{4}$)

Q96. Choose the correct option in the (?) position.

India : Delhi :: Bangladesh : ?

(a) Dhaka

(b) Kathmandu

(c) Kabul

(d) Beijing

Q97. Choose the correct option in the (?) position.

$2^2 + 1, 3^2 + 2, 4^2 + 3, ?$

(a) $5^2 + 4$

(b) $5^2 + 2$

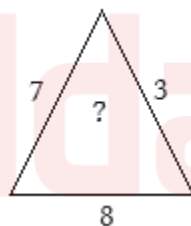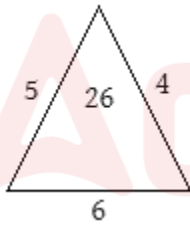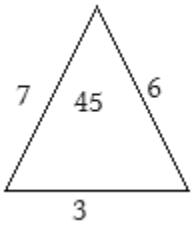(c) $5^2 + 3$

(d) $5^2 + 1$

Q98. Find the odd one out.

(a) 36

(b) 64

(c) 121

(d) 13

Q99. Determine the correct alternative, which will replace the question mark.

2	5	7
12	8	20
11	3	?

(a) 12

(b) 14

(c) 15

(d) 18

Q100. Which number will replace the (?) mark?

(a) 59

(b) 18

(c) 29

(d) 31