SORFSL/TOX/24

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

Test Booklet No. :

Series

A

00105 TEST BOOKLET

TOXICOLOGY AND GENERAL STUDIES

Time Allowed : 2 Hours **Full Marks : 200**

Read the following instructions carefully before you begin to answer the questions :

1. The name of the Subject, Roll Number as mentioned in the Admission Certificate, Test Booklet No. and Series are to be written legibly and correctly in the space provided on the Answer-Sheet with Black/Blue ballpoint pen.
2. **Answer-Sheet without marking Series as mentioned above in the space provided for in the Answer-Sheet shall not be evaluated.**
3. All questions carry equal marks.

   The Answer-Sheet should be submitted to the Invigilator.

   Directions for giving the answers : Directions for answering questions have already been issued to the respective candidates in the 'Instructions for marking in the OMR Answer-Sheet' along with the Admit Card and Specimen Copy of the OMR Answer-Sheet.

   Example :

   Suppose the following question is asked :

   The capital of Bangladesh is
   (A) Chennai
   (B) London
   (C) Dhaka
   (D) Dhubri

   You will have four alternatives in the Answer-Sheet for your response corresponding to each question of the Test Booklet as below :

   Ⓐ Ⓑ Ⓒ Ⓓ

   In the above illustration, if your chosen response is alternative (C), i.e., Dhaka, then the same should be marked on the Answer-Sheet by blackening the relevant circle with a Black/Blue ballpoint pen only as below :

   Ⓐ Ⓑ ● Ⓓ

   The example shown above is the only correct method of answering.
4. Use of eraser, blade, chemical whitener fluid to rectify any response is prohibited.
5. Please ensure that the Test Booklet has the required number of pages (23) and 100 questions immediately after opening the Booklet. In case of any discrepancy, please report the same to the Invigilator.
6. No candidate shall be admitted to the Examination Hall/Room 20 minutes after the commencement of the examination.
7. No candidate shall leave the Examination Hall/Room without prior permission of the Supervisor/Invigilator. No candidate shall be permitted to hand over his/her Answer-Sheet and leave the Examination Hall/Room before expiry of the full time allotted for each paper.
8. No Mobile Phone, Electronic Communication Device, etc., are allowed to be carried inside the Examination Hall/Room by the candidates. Any Mobile Phone, Electronic Communication Device, etc., found in possession of the candidate inside the Examination Hall/Room, even if on off mode, shall be liable for confiscation.
9. No candidate shall have in his/her possession inside the Examination Hall/Room any book, notebook or loose paper, except his/her Admission Certificate and other connected papers permitted by the Commission.
10. Complete silence must be observed in the Examination Hall/Room. No candidate shall copy from the paper of any other candidate, or permit his/her own paper to be copied, or give, or attempt to give, or obtain, or attempt to obtain irregular assistance of any kind.
11. This Test Booklet can be carried with you after answering the questions in the prescribed Answer-Sheet.
12. Noncompliance with any of the above instructions will render a candidate liable to penalty as may be deemed fit.
13. No rough work is to be done on the OMR Answer-Sheet. You can do the rough work on the space provided in the Test Booklet.

N.B. : There will be negative marking @ 0·25 per 1 (one) mark against each wrong answer.

SEAL

[No. of Questions : 100]

1. Lanthanides have a valency of

(A) 3

(B) 5

(C) 7

(D) 9

2. The type of hybridization in bonding of CCl_4 molecule is

(A) sp^2

(B) sp^3

(C) sp^4

(D) sd^3d^2

3. Red color produced by fireworks is due to the presence of which ion?

(A) Cu^+

(B) K^+

(C) Sr^{2+}

(D) Ba^{2+}

4. How many lone pairs and bonding pairs are present in H_2O?

(A) 2 lone pairs and 2 bonding pairs

(B) 2 lone pairs and 3 bonding pairs

(C) 3 lone pairs and 3 bonding pairs

(D) 4 lone pairs and 4 bonding pairs

5. Which one of the following orders of the dipole moment of the molecules is correct?

(A) $CCl_4 > CHCl_3 > CH_2Cl_2 > CH_3Cl$

(B) $CCl_4 < CHCl_3 < CH_2Cl_2 < CH_3Cl$

(C) $CHCl_3 > CH_2Cl_2 > CH_3Cl > CCl_4$

(D) $CHCl_3 < CH_2Cl_2 < CH_3Cl < CCl_4$

6. Who provided first the scientific concept of acid and base?

(A) Sir Humphry Davy

(B) Svante Arrhenius

(C) Antoine Lavoisier

(D) Friedrich Wilhelm

7. 'Sedative salt of Homberg' was the name given to which of the following chemicals?

(A) Phosphoric acid

(B) Boric acid

(C) Sulphuric acid

(D) Nitric acid

8. The compound that contains both ionic and covalent bonds is

(A) KCl

(B) KCN

(C) H_2O

(D) H_2SO_4

9. What is the coordination number of Ca^{2+} ion in the fluorite structure?

(A) 8

(B) 6

(C) 4

(D) 2

10. An addition of hydrogen chloride with propylene gives

(A) 1-chloropropane

(B) propane

(C) 2-chloropropane

(D) 1,2-dichloropropane

11. In thin-layer chromatography, which of the following chemicals is used as stationary phase?

(A) Silica gel G

(B) Silicon

(C) Calcium oxide

(D) Boron oxide

12. Which of the following is ***not*** used as a carrier gas in gas chromatography?

(A) Helium

(B) Argon

(C) Nitrogen

(D) Neon

13. Which lamp is used in the UV spectrophotometer for UV radiation?

(A) Deuterium

(B) Tungsten

(C) Hollow cathode lamp

(D) Nernst glower

14. Polarizability is the principle of which of the following spectroscopies?

(A) UV-Vis spectroscopy

(B) IR spectroscopy

(C) Raman spectroscopy

(D) Atomic absorption spectroscopy

15. In the electron capture detector, which radioactive β-emitter is used?

(A) Nickel-63

(B) Uranium-238

(C) Polonium-210

(D) Radium-226

16. Mobile phase, in which a constant solvent blend is used, is called

(A) gradient

(B) isocratic

(C) isosbestic

(D) isotonic

17. Which of the following is ***not*** a pump used in HPLC?

(A) Reciprocating pump

(B) Syringe pump

(C) Constant pressure pump

(D) Hydro-pump

18. The point where a ferromagnetic material becomes paramagnetic, is called

(A) pour point

(B) critical point

(C) Curie point

(D) magnetic point

19. Thermograms are produced by which of the following analysis methods?

(A) TGA

(B) NMR

(C) Raman

(D) HPLC

20. How many signals does the aldehyde $(CH_3)_3CCH_2CHO$ have in ^1H NMR and ^{13}C NMR spectra?

(A) Five ^1H signals and six ^{13}C signals

(B) Three ^1H signals and four ^{13}C signals

(C) Five ^1H signals and four ^{13}C signals

(D) Three ^1H signals and six ^{13}C signals

21. Which of the following chemical tests is used for the detection of methyl alcohol?

(A) Iodoform test

(B) Schiff's reagent test

(C) Reinsch test

(D) Fujiwara test

22. For the quantitative determination of ethyl alcohol, which internal standard is used?

(A) Methanol

(B) *n*-Propanol

(C) Isoamyl alcohol

(D) Propylene glycol

23. What is the BAC limit set in drunk driving cases?

(A) 25 mg/dl

(B) 30 mg/dl

(C) 35 mg/dl

(D) 40 mg/dl

24. Which of the following dyes is used for coloring motor gasoline (petrol)?

(A) Phenylazo 2-naphthol

(B) Dialkyl amino anthraquinone

(C) Congo red

(D) Malachite orange

25. Cetane number is used for which of the following products?

(A) Petrol

(B) Diesel

(C) Ethanol

(D) Distilled water

26. The density at 15 °C of a typical standard petrol is

(A) 650–700 kg/m^3

(B) 710–770 kg/m^3

(C) 800–850 kg/m^3

(D) 860–910 kg/m^3

27. Phenolphthalein is synthesized by condensation of which of the following chemicals?

(A) Anhydride chloride

(B) Phthalic anhydride

(C) Phthalic chloride

(D) Phenolic chloride

28. Which of the following explosives is also known as 'cyclonite'?

(A) PETN

(B) TNT

(C) RDX

(D) Tetryl

29. Which of the following chemical tests is used for the detection of explosives?

(A) Griess test

(B) Reinsch test

(C) Scott test

(D) Fujiwara test

30. Which of the following is an example of low explosive?

(A) RDX

(B) Lead azide

(C) Mercury fulminate

(D) Black powder

31. The NDPS Act was enacted in the year

(A) 1975

(B) 1980

(C) 1985

(D) 1990

32. Which of the following nations is ***not*** a part of Golden Triangle?

(A) Laos

(B) Bhutan

(C) Myanmar

(D) Thailand

33. In opium, which alkaloid is present in the highest concentration?

(A) Codeine

(B) Morphine

(C) Thebaine

(D) Papaverine

34. Which of the following plants is also known as 'hemp'?

(A) Opium

(B) Cannabis

(C) Coca plant

(D) Tobacco

35. For the detection of barbiturates, which of the following chemical tests is used?

(A) Fujiwara test

(B) Scott test

(C) Dille-Koppanyi test

(D) Marquis test

36. Cocaine is extracted from the leaves of which plant?

(A) *Erythroxylum coca*

(B) *Theobroma cacao*

(C) *Calotropis gigantea*

(D) *Chondrodendron tomentosum*

37. Which of the following drugs is known as Mandrax?

(A) Methamphetamine

(B) Methaqualone

(C) Mefenamic acid

(D) Metronidazole

38. Which of the following chemicals is used as a precursor in the manufacturing of heroin?

(A) Acetic acid

(B) Acetic borate

(C) Acetic phthalate

(D) Acetic anhydride

39. In the preparation of Marquis reagent, which acid is used?

(A) Nitric acid

(B) Sulphuric acid

(C) Hydrochloric acid

(D) Formic acid

40. For the sampling of LSD, the sample size unit used is

(A) DU

(B) dl

(C) IU

(D) cc

41. 'Poudre de succession' nickname was used for which of the following poisons?

(A) Thallium

(B) Arsenic

(C) Lead

(D) Mercury

42. The statement, "Dose makes the poison" was given by

(A) Mathieu Orfila

(B) Paracelsus

(C) Alphonse Bertillon

(D) Jonathan Black

43. Aldrich-Mees lines are seen in which of the following poisonings?

(A) Arsenic

(B) Parathion

(C) Allobarbital

(D) Diazepam

44. Which of the following is a type of anticholinergic poison?

(A) *Datura*

(B) Parathion

(C) Cyanide

(D) Mercury

45. The dose at which 50% mortality is observed, is called

(A) ED_{50}

(B) TD_{50}

(C) LD_{50}

(D) EC_{50}

46. Wet digestion method is used for the extraction of which poison?

(A) Organic volatile

(B) Organic neutral

(C) Inorganic non-volatile

(D) Acidic poison

47. Phosphine gas is produced by which of the following poisons?

(A) Aluminium phosphide

(B) Parathion

(C) Phenobarbitone

(D) Phosphorous

48. Dimercaprol is also known as

(A) British anti-Lewisite

(B) succimer

(C) penicillamine

(D) charcoal

49. Deltamethrin is an example of which of the following insecticide categories?

(A) Organophosphorus

(B) Carbamates

(C) Pyrethroids

(D) Neonicotinoid insecticides

50. Brick red colour of post-mortem lividity is seen under which poisoning?

(A) Hydrogen sulphide

(B) Sodium nitrate

(C) Carbon dioxide

(D) Cyanide

51. Which of the following statements is correct about Aditya L1 mission?

(A) It is India's first solar observatory that is 1 million kilometre far from the earth.

(B) It is India's first solar observatory that is 1·8 million kilometre far from the earth.

(C) It is launched at a point where gravitational forces of the sun and the earth are equal.

(D) It is launched at a point where gravitational force of the sun is greater than that of the earth.

52. The place of the moon where soft landing of Chandrayaan-3 was done, was named as

(A) Shiv Aradhya

(B) Bishnu Shakti

(C) Bishnu Aradhya

(D) Shiv Shakti

53. Which of the following is required in rusting of iron?

(A) Oxygen and nitrogen gases

(B) Oxygen and water vapour

(C) Carbon dioxide gas and water vapour

(D) Carbon dioxide and dust

54. Match the vitamins given in List–I with the deficiency diseases given in List–II :

List–I (*Vitamin*)	*List–II* (*Deficiency disease*)
a. Vitamin D	1. Beriberi
b. Vitamin B1	2. Scurvy
c. Vitamin C	3. Cognitive impairment
d. Vitamin B12	4. Osteomalacia

Select the correct answer using the codes given below.

(A) a b c d
4 1 2 3

(B) a b c d
4 1 3 2

(C) a b c d
2 4 1 3

(D) a b c d
1 3 4 2

55. Ali-Ai-Ligang and Chomangkan are festivals of Assam celebrated by

(A) Ahom people and Karbi community respectively

(B) Mising community and Ahom people respectively

(C) Mising community and Karbi community respectively

(D) Karbi community and Dimasa people respectively

56. The winner(s) of the 2023 Nobel Peace Prize is/are

(A) Narges Mohammadi

(B) Katalin Karikó

(C) Ales Bialiatski

(D) Maria Ressa and Dmitry Andreyevich Muratov

57. India's first Girl Sainik School has been founded at

(A) Gandhinagar

(B) Bhubaneswar

(C) Delhi

(D) Mathura

58. Who among the following personalities is the winner of both Assam Baibhav Award and P. V. Narasimha Rao Memorial Award?

(A) Jadav Payeng

(B) Ratan Tata

(C) Dr. Tapan Kumar Saikia

(D) Kamalendu Deb Krori

59. Consider the following statements :

I. Rima Das is recipient of Rupkonwar Jyoti Prasad Agarwala Award for her film *Bulbul Can Sing* of 8th Assam State Film Awards.

II. Best animated Assamese short film is *Lachit : The Warrior* directed by Parthasarathi Mahanta.

III. Benjamin Daimari is the recipient of Natasurjya Phani Sarma Award for his film *Suspended Inspector Bodo.*

IV. Tarali Sarma is the recipient of Pratima Baruah Pandey Award of 8th Assam State Film Awards for the best playback singer.

Which of the above statements are correct?

(A) I and IV

(B) II and III

(C) III and IV

(D) I and II

60. Oxygen is the most abundant element in earth's crust and human body, because

I. it is able to form oxides with many elements and % mass composition of water in the human body is highest

II. it is released into the soil on degradation of dead matter and % mass composition of proteins in the human body is highest

III. it is released into the soil on degradation of dead matter and % mass composition of water in the human body is highest

IV. it is able to form oxides with many elements and % mass composition of carbohydrates of the human body is highest

Select the correct answer using the codes given below.

(A) Only I is correct

(B) Only IV is correct

(C) Both I and IV are correct

(D) I and III are correct

61. Which of the following statements are correct for 19th Asian Games and ICC Cricket World Cup 2023?

I. Japan is the winner of highest number of gold medals in 19th Asian Games and India is the winner of highest number of matches in ICC Cricket World Cup 2023.

II. China is the winner of highest number of gold medals in 19th Asian Games and Australia is the winner of highest number of matches in ICC Cricket World Cup 2023.

III. China is the winner of highest number of gold medals in 19th Asian Games and India is the winner of highest number of matches in ICC Cricket World Cup 2023.

IV. India is in the 4th position winning gold medals in 19th Asian Games and Glenn Maxwell of Australian team scored double centuries against Afghanistan in ICC Cricket World Cup 2023.

Select the correct answer using the codes given below.

(A) I and III

(B) III and IV

(C) I and IV

(D) II and III

62. Which of the following socio-economic schemes of Government of Assam is 'Chief Minister's Atmanirbhar Asom Abhijan'?

(A) Swanirbhar Naari Scheme

(B) Arunodoi Scheme

(C) Assam Arogya Nidhi

(D) Financial assistance to unemployed educated youth with an amount of ₹ 2 lakh to ₹ 5 lakh to make them self-reliant

63. Which of the following is correct about the Assam Government's 'Swanirbhar Naari' Scheme?

(A) Briddha pension to senior lady citizens of age above 60 years

(B) Supporting indigenous weavers of Assam and promoting their traditional handlooms

(C) Monthly financial assistance to poor households of the State

(D) It caters for prevention of trafficking and rescue, rehabilitation and re-integration of victims of trafficking and commercial sexual exploitation

64. State flower, State aquatic animal, State tree and State bird of Assam are respectively

(A) Lotus, Tortoise, Tea plant and Pigeon

(B) Lotus, Xihu, Bamboo and Pigeon

(C) Kopou flower, Xihu, Hollong and Deo Haah

(D) Kopou flower, Xihu, Bamboo and Deo Haah

65. Directive Principles and Fundamental Rights mentioned in the Constitution of India are different from each other. Which of the following statements conform to their difference?

I. Directive Principles are legally enforceable while Fundamental Rights are not legally enforceable.

II. Directive Principle are not legally enforceable while Fundamental Rights are legally enforceable.

III. Directive Principles are socio-economic rights of a nation while Fundamental Rights are individualistic.

IV. Directive Principles strengthen the political democracy of a nation while Fundamental Rights strengthen the socio-economic democracy of a nation.

Select the correct answer using the codes given below.

(A) I and II

(B) II and III

(C) III and IV

(D) I and IV

66. The recently held Joint Military Exercise between India and Saudi Arabia is

(A) Sada Tanseeq

(B) Vajra Prahar

(C) Garuda Shakti

(D) Naseem Al Bahr

67. Which Schedule of the Constitution of India has system of formation of autonomous district council?

(A) Third Schedule

(B) Eighth Schedule

(C) Sixth Schedule

(D) Fifth Schedule

68. The name of the smallest book written by Sankardeva is

(A) *Bhakti Ratnakar*

(B) *Gunamala*

(C) *Kaliya Daman*

(D) *Kirtan Ghosha*

69. The Chief Guest of the 75th Republic Day of India was

(A) Boris Johnson

(B) Emmanuel Macron

(C) Justin Trudeau

(D) Joe Biden

70. The Government of India announced that one crore household would get rooftop solar panels at subsidized rate. This announcement came as part of

(A) PM Awas Yojana

(B) PM Jan Dhan Yojana

(C) PM Suryoday Yojana

(D) PM Suraksha Bima Yojana

71. Haloform reaction is shown by

I. benzaldehyde

II. acetophenone

III. cyclohexanone

IV. 2-butanone

Select the correct answer using the codes given below.

(A) I and II

(B) II and III

(C) II and IV

(D) I and IV

72. Considering only monochlorination in the reaction

$$C_4H_{10} \xrightarrow[h\nu]{Cl_2}$$

how many monochlorinated products would be obtained?

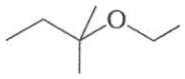
(A) 2

(B) 3

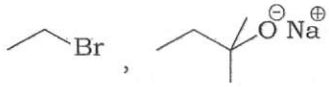
(C) 4

(D) 5

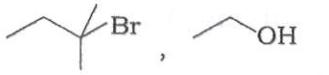
73. The suitable pair of reactant and reagent for preparation of the ether

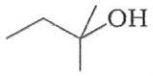


is

(A) 

(B) 

(C) 

(D) $H_2C{=}CH_2$, 

74. Which of the following are reducing sugars?

I. Fructose

II. Sucrose

III. β-D-glucopyranose

IV. Methyl-α-D-glucopyranoside

Select the correct answer using the codes given below.

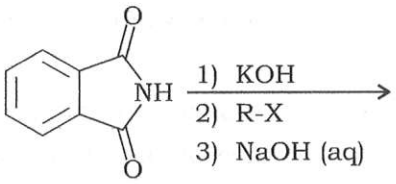
(A) I and II

(B) I and III

(C) II and III

(D) III and IV

75. For the given reaction



which of the following statements are correct?

I. A primary aliphatic amine can be prepared by this method whereas a primary aromatic amine cannot be prepared by this method.

II. A primary aliphatic amine cannot be prepared by this method whereas a primary aromatic amine can be prepared by this method.

III. The second step of the method involves S_N2 reaction which is feasible in a primary alkyl halide while it is not feasible in an aryl halide.

IV. Aliphatic secondary and tertiary amines can also be synthesized by this method.

Select the correct answer using the codes given below.

(A) I and III

(B) II and III

(C) III and IV

(D) I and II

76. Which of the following objects are chiral?

(A) A conch shell and a rectangle

(B) A hand glove and a shoe

(C) A spoon and a water glass

(D) A football and a playground

77. The number of lattice sites per unit cell of a face-centered cubic solid is

(A) 1

(B) 2

(C) 3

(D) 4

78. A solid is formed by two elements *X* and *Y*. Element *X* forms hexagonal closed packed lattice while element *Y* occupies two-thirds of the tetrahedral voids. The formula of the compound would be

(A) XY

(B) X_2Y_3

(C) X_3Y_4

(D) X_4Y_3

79. A chemical reaction $A + B \rightarrow C$ has the following rate expression :

$$\text{Rate} = k[A][B]$$

Which of the following statements is correct for the reaction?

(A) Rate of the reaction depends on concentration of A only.

(B) Rate of the reaction depends on concentration of B only.

(C) Rate of the reaction depends on concentrations of both A and B and unit of rate constant of the reaction is s^{-1}.

(D) Rate of the reaction depends on concentrations of both A and B and unit of rate constant of the reaction is $Lmol^{-1}s^{-1}$.

80. Which of the following statements is true for the two complexes $[Cr(ox)_3]^{3-}$ and $[Co(en)_3]^{3+}$?

(A) $[Cr(ox)_3]^{3-}$ exhibits geometrical isomerism while $[Co(en)_3]^{3+}$ exhibits optical isomerism.

(B) $[Cr(ox)_3]^{3-}$ exhibits optical isomerism while $[Co(en)_3]^{3+}$ exhibits geometrical isomerism.

(C) Both exhibit geometrical isomerism and they do not exhibit optical isomerism.

(D) Both exhibit optical isomerism and they do not exhibit geometrical isomerism.

81. Which of the following statements are true for an inner orbital complex and an outer orbital complex?

I. An inner orbital complex is formed by use of $(n-1)d$ orbital while an outer orbital complex is formed by use of nd orbital.

II. Weak field ligands tend to form inner orbital complex while strong field ligands tend to form outer orbital complex.

III. Magnetic moment of an inner orbital complex is higher than magnetic moment of an outer orbital complex.

IV. State of hybridization of an inner orbital octahedral complex is d^2sp^3 while state of hybridization of an outer orbital octahedral complex is sp^3d^2.

Select the correct answer using the codes given below.

(A) I and II

(B) II and III

(C) III and IV

(D) I and IV

82. An electrolytic cell is different from a galvanic cell. Which of the following statements conform to their difference?

I. A non-spontaneous redox reaction occurs in an electrolytic cell while in a galvanic cell a spontaneous redox reaction occurs.

II. A spontaneous redox reaction occurs in an electrolytic cell while in a galvanic cell a non-spontaneous redox reaction occurs.

III. Electrical energy is converted into chemical energy in an electrolytic cell while in a galvanic cell chemical energy is converted to electrical energy.

IV. A battery used in a torch is an example of an electrolytic cell while electroplating is an example of an electrochemical cell.

Select the correct answer using the codes given below.

(A) I and II

(B) II and III

(C) I and III

(D) III and IV

83. A pure Si chip has 5×10^{28} atoms per cubic metre. It is doped by 1 ppm concentration of pentavalent As. If the number of thermally generated electrons is $1{\cdot}5 \times 10^{16}\ m^{-3}$, the number of conduction electrons and holes per cubic metre would be

(A) $1{\cdot}5 \times 10^{22}$, 2×10^{10}

(B) 5×10^{22}, $4{\cdot}5 \times 10^{9}$

(C) 2×10^{22}, 4×10^{10}

(D) 5×10^{22}, 2×10^{9}

84. Which of the following statements is correct for a *p-n* junction?

(A) Application of forward bias lowers the potential barrier.

(B) Application of forward bias raises the potential barrier.

(C) Application of forward bias reduces the carrier current to zero.

(D) Application of forward bias first raises the potential barrier and then reduces again.

85. The product X of the nuclear reaction

$$_7N^{14} + {}_0n^1 \rightarrow {}_6C^{14} + X$$

is

(A) electron

(B) proton

(C) neutron

(D) deutron

86. A laser emits radiation of frequency $4{\cdot}5 \times 10^{15}$ Hz with power $1{\cdot}5 \times 10^{-3}$ W. The number of photons emitted per second by the laser is

(A) 3×10^{15}

(B) 4×10^{14}

(C) 5×10^{14}

(D) 5×10^{15}

87. Nicotinic acid, also called niacin, is an important vitamin which plays some of the vital roles in metabolism. Our body converts it to a coenzyme for a class of enzymes. Which of the following coenzymes and enzymes are referred to here?

I. Flavin adenine nucleotide (FAD), isomerases

II. Nicotinamide adenine dinucleotide (NAD^+), oxidoreductases

III. Nicotinamide adenine dinucleotide phosphate ($NADP^+$), oxidoreductases

IV. Thiamine pyrophosphate (TPP) and lyases

Select the correct answer using the codes given below.

(A) I and II

(B) II and III

(C) II and IV

(D) I and IV

88. Match List–I with List–II :

List—I	*List—II*
a. Monoecious plants	1. Having only male or female flower in one plant
b. Dioecious plants	2. Having both male and female reproductive structures in the same flower
c. Bisexual plants	3. Having both male and female flowers separately on the same plant

Select the correct answer using the codes given below.

(A)	a	b	c
	1	2	3
(B)	a	b	c
	2	1	3
(C)	a	b	c
	3	2	1
(D)	a	b	c
	3	1	2

89. The number of *t*RNA molecules that participate in the translation of amino acids during biosynthesis of proteins is

(A) 61 (B) 64

(C) 68 (D) 70

90. The DNA of a bacterium is 2·2 m long. If the pitch of DNA is 3·4 nm, the number of base pairs present in the DNA is

(A) 6×10^9 (B) $6{\cdot}6 \times 10^9$

(C) $6{\cdot}6 \times 10^8$ (D) $6{\cdot}6 \times 10^{10}$

91. Choose the synonym for the word 'Gall'.

(A) Respect

(B) Recognition

(C) Audacity

(D) Yellow-livered

92. Find the suitable antonym for the word 'Concise'.

(A) Summarized

(B) Discursive

(C) Embellished

(D) Succinct

93. Select the most appropriate word to fill in the blank :

A legitimate _____ should not include the possibility of coercion or violence against the participants.

(A) fracas

(B) plebiscite

(C) invasion

(D) gathering

94. Select the correct indirect form of the given sentence :

Deepa asked Rahul, "How will you pay off your debts?"

(A) Deepa asked Rahul how will he pay off his debts.

(B) Deepa asked Rahul how would he pay off his debts.

(C) Deepa asked Rahul how would he pay off your debts.

(D) Deepa asked Rahul how will you pay off your debts.

95. Select the most appropriate word to fill in the blank :

The company has the _____ of producing the best cricket balls in the country.

(A) opinion

(B) brand

(C) reputation

(D) position

96. Select the most appropriate word to fill in the blank :

Around 12 bands in colourful _____ took part in the Hornbill Carnival.

(A) clothings

(B) costumes

(C) apparels

(D) dressings

97. Identify the correct meaning of the following phrase :

To play ducks and drakes.

(A) To use recklessly

(B) To change places

(C) To be friendly

(D) To act cleverly

98. A person who is good at foreign language is known as

(A) virtuoso

(B) linguist

(C) ventriloquist

(D) scholar

99. Regional variations of a language is called

(A) pidgin

(B) lingua franca

(C) dialect

(D) mother tongue

100. Choose the option that best expresses the meaning of the idiom 'whistle in the dark'.

(A) A ray of hope in the worst of time

(B) See a ghost while dreaming

(C) Be blind and fall into a trap

(D) Pretend to be unafraid

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

★★★

SEAL