

Part – A**English**

Directions : Read the following passage carefully and answer the questions that follow by selecting the correct option from the given options, based solely on the passage. Mark your answer on the Answer Sheet accordingly.

An attempt to determine the number of languages in the world is affected by other factors. A few new languages do continue to be discovered, even these days, as unexplored regions of the world begin to be opened up. The discovery does not usually take place straight away. Often there are similarities with an already known language which make the investigators assume that what they have found is just a dialect of that language. Only after a considerable period of contact does it transpire that the speech is so different that it has to be considered a different language. It takes a language survey to establish the facts, and there are still many countries where such surveys are incomplete or have not even begun. The people may be known, but the identity of their language may not be. Because many such peoples are bilingual or multilingual, and converse with outsiders in lingua franca, it may take a while before linguists come to realize that there is an ethnic language there at all.

1. Which one of the following is NOT the reason for the difficulty in estimating the number of languages of the world ?

- (a) New languages continue to be discovered
- (b) There are still unexplored regions
- (c) New languages are considered a dialect of a known language
- (d) People who speak the language do not claim their language

2. Which one of the following is a way to establish the discovery of a new language?

- (a) By establishing contact over a period of time with the speakers of the language
- (b) By finding the similarities of the language with other languages
- (c) By comparing with the lingua franca of the region
- (d) By conducting a survey of all languages of the region

3. Which one of the following statements is correct?

- (a) Language surveys have been conducted by all nations
- (b) There is hardly any language to be discovered in the world
- (c) All the languages are either complete languages or dialects of other major languages
- (d) No new language needs to be discovered since all languages are known to the world

4. 'The people may be known, but the identity of their language may not be,' means

- (a) People are recognised as different ethnic groups but not necessarily their language
- (b) People are recognised as different ethnic groups and their language is recognised
- (c) People are not recognised as different ethnic groups, and so are their languages
- (d) Because the people are not from different ethnic groups and their language is recognised

5. Which one of the following words from passage means 'come to be known'?

- (a) transpire
- (b) lingua franca
- (c) straight
- (d) variant

Directions : The following items have a sentence in direct or indirect speech with four options. One of the options converts the direct or indirect speech into indirect or direct correctly. Select the correct option and mark your response on the Answer Sheet.

6. Convert from direct speech to indirect speech :

Charu said to her friend, "I want you to be here at 6.00 p.m. tomorrow for the meeting."

- (a) Charu told her friend that she wanted her to be there at 6.00 p.m. the next day for the meeting
- (b) Charu told her friend that she wanted her to be there at 6.00 p.m. tomorrow for the meeting
- (c) Charu requested her friend that she wanted her to be there at 6.00 p.m. tomorrow for the meeting
- (d) Charu told her friend that she will want her to be here at 6.00 p.m. the next day for the meeting

7. Convert from direct speech to indirect speech :

Nitin said to his brother, "What a beautiful painting it is?"

- (a) Nitin wondered to his brother that what a beautiful painting it was
- (b) Nitin wondered before his brother that it was a beautiful painting
- (c) Nitin exclaimed that it is a beautiful painting
- (d) Nitin asked his brother whether it was beautiful painting

8. Convert from indirect speech to direct speech :

The teacher asked her students why they had been quiet in the previous class.

- (a) The teacher asked her students, "Why were they keeping quiet in the previous class?"

- (b) The teacher said to her students, "Why were you quiet in the previous class?"
(c) The teacher said to her students, "Why had you been quiet in the previous class?"
(d) The teacher said to her students, "Why were you quiet in previous class?"

Directions : Following items have four sentences, one of which is correct. Find the correct option and mark your response in the Answer Sheet.

9. Which one of the following sentences is correct?

- (a) He is considered as the brightest intellectual in the country
(b) He is considered as one among the brightest intellectual in the country
(c) He is considered as one among the brighter intellectual in the country
(d) He is considered as one of the intellectual in the country

10. Which one of the following sentences is correct?

- (a) No other mountain is taller than the Himalayas
(b) No other mountain is tall than the Himalayas
(c) No other mountains taller than the Himalayas
(d) No other mountain is taller then the Himalayas

Directions : In the following items, a pair of words is provided. You are required to select the option that most appropriately describes the meaning of both the words and mark your response on the Answer Sheet accordingly.

11. Confident and Confidant.

- (a) Confident means certain and confidant means close friend
(b) Confidant means certain and confident means close friend
(c) Confident means belief and confidant means an emissary
(d) Confident means assurance and confidant means intimate person

12. Broke and brook.

- (a) Broke means abundance and brook means a flowing water body
(b) Broke means bankrupt and brook means a stream
(c) Broke means fractured and brook means nonsense
(d) Broke means negotiate and brook means a stream

13. Accept and Except.

- (a) Accept means apart from and except means recognise
(b) Accept means recognise and except means include
(c) Accept means consent and except means apart from
(d) Accept means allude and except means apart from

14. Accord and Accrued

- (a) Accord means collected and accrued means agreement
(b) Accord means agreement and accrued means arrived
(c) Accord means accepted and accrued means received
(d) Accord means agreement and accrued means accumulated

15. Guarantee and Warranty

- (a) Guarantee is an agreement and warranty is a service contract
(b) Guarantee is a business agreement and warranty is a service contract
(c) Guarantee is a promise and warranty is a service contract
(d) Guarantee is acceptance and warranty is a service contract

Directions : In the following items a sentence or a phrase is given with a word that is underlined, followed by four options. Select the most appropriate option that is nearest in meaning to the underlined word and mark your response on the Answer Sheet accordingly.

16. The Constitution of India ensures proportionate representation from all regions.

- (a) balanced (b) partial
(c) unlikely (d) suffragette

17. There is a feeling of disenchantment among the members of the group.

- (a) delight (b) disappointment
(c) idealism (d) unrelenting

18. She believed that it was imminent that he would be chosen as the leader of the group.

- (a) timely (b) distant
(c) unlikely (d) inevitable

19. The brave soldiers left an indelible impression on the people of the land.

- (a) permanent (b) fleeting
(c) hilarious (d) eradicable

20. The manager always provides instantaneous replies to all queries.

- (a) immediate (b) delayed
(c) deliberate (d) unwanted

Directions : In this section each item consists of six sentences that comprise a passage. The first and sixth sentences are given in the beginning as S1 and S6. The sequence of the middle four sentences has been jumbled up and labelled as P, Q, R and S. You are required to find the proper sequence of the four sentences and mark your response accordingly on the answer sheet.

21. S1: Although all sources of energy ultimately come from natural processes, non-renewable resources cannot be replaced naturally at the rate they are being used.

S6: The sustainable use of natural resources in a manner that provides the maximum benefit of these resources to humans over a period of time can be termed as conservation.

P : This will increase the time and cost of mining and once these resources are used up they cannot be replaced.

Q : Hence, we must remember that though our country is rich in mineral deposits these resources are short-lived.

R : Extraction of these ores through the process of mining will soon become difficult and very expensive because these minerals have to be mined from greater depths over time.

S : Mineral resources can be said to be finite and non-renewable.

- (a) QPRS (b) S P Q R
(c) S Q R P (d) S Q P R

22. S1: India, at present, has one of the largest road networks in the world.

S6: It passes through Howrah, Delhi and Amritsar and terminates in Kabul (Afghanistan).

P : The importance of roads has been recognised in India since the ancient times.

Q : The Grand Trunk Road was built by Sher Shah Suri across the IndoGangetic plain, from Chittagong (Bangladesh) to Peshawar (Pakistan).

R : Kings such as Ashoka and Chandragupta built roads for easy transportation of goods and people.

S : Construction of roads continued as an important activity in the late medieval period.

- (a) QPRS (b) SPQR
(c) PQRS (d) PRSQ

23. S1: National highways connect one state with another and are of national importance.

S6: These road systems are also known as primary road systems and are laid and operated under the supervision of the National Highway Authority of India.

P : They are important because whereas they constitute merely two per cent of the total road networks, they nevertheless carry 40 per cent of the total road traffic.

Q : The road infrastructure of the country is therefore crucial, and their construction and maintenance is of critical importance.

R : They bear the load of traffic because these roads connect long distances and pass through major cities and towns.

S : Since they cover the length and breadth of the nation and connect cities and towns, these highways are the primary facilitators of trade and connectivity.

- (a) PRSQ (b) SPQR
(c) PRQS (d) S QRP

24. S1: The South African Constitution was inaugurated in December 1996.

S6: A special constitutional court enforces the rights enshrined in the Constitution.

P : Its creation and promulgation took place at a time when South Africa still faced the threat of a civil war after the dissolution of the Apartheid Government.

Q : The South African Constitution says that its "Bill of Rights is a cornerstone of democracy in South Africa."

R : Apropos, it forbids discrimination on the grounds of "race, gender, pregnancy, marital status, ethnic or social origin, colour, age, disability, religion, conscience, belief, culture, language and birth".

S : The Bill of Rights grants perhaps the most extensive range of rights to the citizens.

- (a) Q S R P (b) SPQR
(c) PQRS (d) P Q S R

25. S1: Our Constitution reminds us of the necessity of representation in a large democracy.

S6: Elections have today become the most visible symbol of the democratic process.

P : This is why elections become important.

Q : Therefore representatives are elected by the people.

R : Whenever we think of India as a democracy, our mind invariably turns to our successful elections.

S : All citizens cannot participate in taking every decision.

- (a) Q S R P (b) SPQR
(c) P Q S R (d) SQPR

Directions : Given below are sentences that use discourse markers/expressions to make them complete. Identify the most appropriate discourse marker/expression and mark your answer accordingly in the Answer Sheet :

26. _____ your transfer request is concerned, we'll be discussing it at the next meeting.

- (a) As far as (b) To begin with
(c) By the way (d) Talking about

27. _____ did you know Ravi has a new job ?

- (a) For one thing (b) By the way
(c) In the first place (d) As a result

28. _____ the wind, it was getting stronger, and I was getting colder.

- (a) To begin with (b) By the way
(c) First of all (d) Speaking of

29. _____, what are you doing in my room?

- (a) On the other hand (b) Excuse me
(c) Look there (d) Eventually

30. _____ an unhappy childhood leads to criminal behaviour.

- (a) Still if (b) Even somewhat
(c) In some cases (d) In progression

31. _____, the problem is nothing but a wrong assumption about processes.

- (a) In the meanwhile (b) Somewhat
(c) Engagingly (d) In other words

32. Many _____ hesitate to publicly broach such question for fear of nurturing discrimination.

- (a) understandably (b) despite
(c) until (d) of course

33. _____, one notes that in the nineteenth century an important development of reflection and questioning gained momentum.

- (a) Particularly speaking
(b) Generally speaking
(c) Otherwise
(d) Of course

34. _____, the situation has completely transformed over the past few years.

- (a) Somewhat (b) Believably
(c) Thus (d) Predominantly

35. _____, the committee is of the opinion that all academic matters will be discussed in the Executive Body Meeting.

- (a) Hence (b) But
(c) Later (d) Although

Directions : Given below are words, followed by their appropriate meaning. Identify the correct meaning and mark your answer accordingly in the Answer Sheet.

36. Cynosure:

- (a) Person or thing that causes a change
(b) Person or thing that attracts a lot of attention
(c) Person or thing regarded as exact copy
(d) Person or animal that lives in a particular place

37. Coeval :

- (a) Person of roughly the same age
(b) Person or organisation that cooperates with others
(c) Person employed to drive a private car
(d) Person employed in taking census

38. Retrogression :

- (a) Sudden sharp drop in price
(b) Reverse pressure

- (c) Return to earlier state
(d) Sudden occurrence of a past event

39. Imprest :

- (a) Surprise attack by people
(b) Money used to manage small expenses
(c) Sudden occurrence of laughter
(d) Sudden increase in activity

40. Turgid :

- (a) Determined or loyal
(b) Dirty or untidy
(c) Swollen or distended
(d) Excited or upset

Directions : Each of the following items in this section consists of a sentence, the parts of which have been jumbled. These parts have been labelled as P, Q, R and S . The parts are rearranged in four sequences, namely (a), (b), (c) and (d). You are required to select the most appropriate option that sequences the parts correctly and mark your response on the Answer Sheet accordingly.

41. . participate in the function

P

many of the people who had come to

Q

the auditorium was over-crowded

R

could not find a seat because

S

- (a) PRQS (b) PQRS
(c) QPSR (d) SPRQ

42. Lay outside her existing life she knew that the answer

P

Q

somewhere in the back of her mind

R

to her questions about life

S

- (a) RPQS (b) QSPR
(c) QPSR (d) RQSP

43. works of literature inside the pages of all good

P

Q

lies the truth about some of

R

the more challenging questions posed by humanity

S

- (a) PRQS (b) QPRS
(c) QPSR (d) RPS Q

44. Takes on account of its economic successes

P

to address continuing social inequality

Q

for every stride of progress any nation

R

it takes two back if it is unable

S

- (a) PRQS (b) QPRS
(c) RPSQ (d) RPQS

45. The book-value of a loan or

P

an intangible asset over a set period of time

Q

used to periodically lower

R

amortisation is an accounting technique

S

- (a) SRPQ (b) RSPQ
(c) S R QP (d) RPSQ

Directions : The following items have a blank space followed by four options. Select the most appropriate option to fill in the blank and mark your response on the Answer Sheet accordingly.

46. There is more than _____ to get.

- (a) one way (b) one ways
(c) any ways (d) any way

47. The class decided to organise _____.

- (a) picnic (b) a picnic
(c) picnics (d) the picnic

48. The accused _____ before the judge.

- (a) tried (b) was trial
(c) sat trial (d) stood trial

49. The manner in which the demolitions have been carried out _____ scrutiny by the High Court.

- (a) was under (b) under
(c) is under (d) however under

50. I _____ consider the opinions of all stakeholders before taking a final decision.

- (a) will not (b) have
(c) will (d) shall

PART - B

51. Which of the following main industry/ industries was/were developed in the second industrial revolution that took place after about 1850 ?

- (a) Coal and iron
(b) Cotton spinning and weaving
(c) Chemical and electrical
(d) Steam engines

52. Which among the following materials was used in making the Harappan seals?

- (a) Sandstone (b) Lapis lazuli
(c) Jasper (d) Steatite

53. Which one among the following Mahajan padas in ancient India was an oligarchy?

- (a) Vajji (b) Kosala
(c) Gandhara (d) Magadha

54. Which one of the following sculptures found at Sanchi Stupa is NOT directly inspired by Buddhist ideas?

- (a) Empty seat (b) Shalbhanjika
(c) Tree (d) Wheel

55. In British India, which one among the following Acts permitted detention without trial for up to two years?

- (a) Regulating Act, 1773
(b) Rowlett Act, 1919
(c) Pitt's India Act, 1784
(d) Government of India Act, 1935

56. Which one of the following statements about the Bhoodan Movement is correct?

- (a) The target was to get one-sixth of cultivable land in India as donation
(b) It was approved through a Central Government Act
(c) It was ensured that the donated land was free from all litigation
(d) The first donation of land was in Bihar

57. The Constitution (Seventy-third Amendment) Act provides for.

- (a) an elaborate system of establishing municipal self-government
(b) an elaborate system of establishing panchayats as units of self government
(c) establishing a Commission for Linguistic Minorities
(d) the creation of the Jharkhand State

58. BHARATPOL portal has been developed by

- (a) The Election Commission of India
- (b) The Central Bureau of Investigation
- (c) The Enforcement Directorate
- (d) The Securities and Exchange Board of India

59. Which one of the following statements about the Parliament of India is correct?

- (a) A majority of members of Rajya Sabha are elected by a system of proportional representation by means of single transferable vote
- (b) The Deputy Chairperson of the Rajya Sabha is nominated by the President from among the members of the Rajya Sabha
- (c) The Lok Sabha cannot be dissolved before the completion of its five year term
- (d) The members of Lok Sabha also vote in the election of the members of Rajya Sabha

60. Which one among the following does NOT figure among the Five Principles of Panchsheel?

- (a) Mutual respect for each other's territorial integrity and sovereignty
- (b) Equality and mutual benefit
- (c) Peaceful coexistence
- (d) Nuclear non-proliferation

61. Maize (makka) was introduced into India in the seventeenth century via

- (a) Portugal
- (b) Africa and Spain
- (c) China and Mongolia
- (d) Turkey

62. Match List I with List II and select the answer using the code given below the List :

List I (Five Year Plan)	List II (Objective)
(A.) Fifth Five Year Plan	(1.) Towards Faster and More Inclusive Growth
(B.) Seventh Five Year Plan	(2.) Garibi Hatao (Removal of Poverty)
(C.) Ninth Five Year Plan	(3.) Food, Work and Productivity
(D.) Eleventh Five Year Plan	(4.) Growth with Social Justice and Equality

A B C D

- (a) 1 4 3 2
- (b) 2 3 4 1
- (c) 2 4 3 1
- (d) 1 3 4 2

63. Which of the following statements about Srimanta Shankardeva is/are correct?

- 1. In the late fifteenth century Shankardeva emerged as one of the leading proponents of Vaishnavism in Assam
- 2. He was the founder of Gaudiya Vaishnavism
- 3. His teachings are known as Bhagavati Dharma
- 4. He encouraged the establishment of satra and naam ghar

Select the answer using the code given below:

- (a) 1 and 2 only (b) 2 and 3 only
(c) 1, 3 and 4 only (d) 1,2,3 and 4

64. At which one among the following places did the British East India Company found its factory in the year 1611?

- (a) Madras (b) Masulipatam
(c) Bombay (d) Balasore

65. Chronologically arrange the following political events related to Indian National Movement beginning from the earliest :

1. Formation of Swaraj Party
2. Communal Award
3. Lucknow Pact
4. Simla Conference

Select the answer using the code given below:

- (a) 3,1,2,4 (b) 1,3,2,4
(c) 2,1,4,3 (d) 1,2,3,4

66. Which among the following Acts provided for the establishment of a Supreme Court of Justice at Calcutta for Europeans, their employees and the citizens of India?

- (a) The Regulating Act of 1773
(b) The Charter Act of 1793
(c) The Charter Act of 1813
(d) Government of India Act of 1858

67. Who, among the following, has introduced a resolution in 1882 which is also called the Magna Carta of Local Self-Government in India?

- (a) Lord Macaulay (b) Lord Canning
(c) Lord Ripon (d) Lord William Bentinck

68. Which one of the following terms is associated with the practice of Sufism ?

- (a) Jizya (b) Ijma
(c) Muqaddam (d) Murid

69. Consider the following features :

1. Consent of the governed
2. Political equality
3. Accountability of the ruled to the ruler

Which of the above feature/features outline democratic rule?

- (a) 1 and 2 only (b) 2 and 3 only
(c) 1,2 and 3 (d) 3 only

70. Placing the earliest first, arrange the following countries in the chronological order in which they granted universal adult franchise :

1. USA 2. Sri Lanka
3. Japan 4. India

Select the answer using the code given below:

- (a) 1,2,3,4 (b) 2,3,4,1
(c) 1,3,4,2 (d) 3,4,1,2

71. Which one of the following statements is NOT correct?

- (a) The molecules of soap are sodium or potassium salts of long chain fatty acids
(b) The molecules of soap contain both hydrophobic and hydrophilic ends
(c) Detergents are more effective than soaps in hard water
(d) In micelles the ionic-end of the molecules is towards oil droplet while the other end faces outside

72. Which one of the following statements is correct?

- (a) A neutron is formed by combination of an electron and a proton. Therefore, it is neutral
(b) The mass of an electron is about $1/2000$ times that of a proton
(c) An isotope of cobalt is used in the treatment of goiter
(d) J. J. Thomson proposed that the nucleus of an atom contains only neutrons

73. Which one of the following particles in the nucleus of an atom was discovered by J. Chadwick?

- (a) Electron (b) Proton
(c) Positron (d) Neutron

74. Which one of the following findings is NOT observed in Rutherford's Nuclear Model of Atom ?

- (a) There is a neutral center in an atom called nucleus
(b) Nearly all the mass of an atom resides in the nucleus
(c) The electrons revolve around the nucleus in a circular path
(d) The size of a nucleus is very small as compared to the size of atom

75. Element X forms a chloride with the formula XCl_2 , which is a solid with high melting point.

X would most likely be in the same group of periodic table as

- (a) Na (b) Al
(c) Mg (d) K

76. Which one of the following oxides is a neutral oxide?

- (a) CO (b) CO_2
(c) Na_2O (d) MgO

77. Which one of the following is also known as Dry ice in its solid form?

- (a) SiO_2 (b) CO_2
(c) CaO (d) MgO

78. Which one of the following statements is NOT correct?

- (a) A scale measuring hydrogen ion concentration in a solution is called pH scale
(b) The higher the hydrogen ion concentration in a solution, higher is its pH
(c) We can measure pH generally from 0 to 14 on a pH scale
(d) The 'p' in pH stands for 'potenz' in German meaning power

79. Which one of the following statements is NOT correct?

- (a) Half mole of nitrogen gas is measured 11.2 liter at STP
(b) 17 gram of ammonia gas contains 6.022×10^{23} molecules at STP
(c) 22.4 litre of CO_2 gas at STP contains 44 gram of molecules
(d) 4 gram of hydrogen gas contains 6.022×10^{23} molecules

80. Which one of the following statements about a compound is NOT correct ?

- (a) A compound is a substance composed of two or more elements, chemically combined in a fixed proportion
(b) Properties of a compound are different from its constituent elements
(c) A compound is an impure substance
(d) The constituents of a compound can be separated only by chemical or electrochemical reactions

81. Match List I with List II and select the answer using the code given below the Lists :

	List I (Chemical Name)		List I (Chemical Formula)
A.	Washing soda	1.	CaOCl_2
B.	Baking soda	2.	NaHCO_3
C.	Bleaching powder	3.	$\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$
D.	Gypsum	4.	$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$

A B C D

(a) 4 2 1 3

(b) 4 1 2 3

(c) 3 1 2 4

(d) 3 2 1 4

82. Which one of the following nitrogen oxides may dimerize?

(a) N_2O (b) NO_2

(c) N_2O_3 (d) N_2O_5

83. Which one of the following statements regarding oxidation and reduction reactions is NOT correct?

(a) If a substance loses hydrogen during reaction, it is reduced

(b) If a substance loses oxygen during reaction, it is reduced

(c) If a substance gains hydrogen during reaction, it is reduced

(d) If a substance gains oxygen during reaction, it is oxidized

84. Match List I with List II and select the answer using the code given below the Lists :

	List I (Physical Quantity)		List II (SI Unit)
A	Temperature	1.	Kelvin
B	Weight	2.	Kilogram
C	Mass	3.	Pascal
D	Pressure	4.	Newton

Code:

A B C D

(a) 1 2 4 3

(b) 3 4 2 1

(c) 1 4 2 3

(d) 3 2 4 1

85. For acid rain, the pH of rain water should be less than

(a) 7.0 (b) 6.6

(c) 5.6 (d) 8.0

86. Consider the following lines of Longitude and Latitude :

1.Prime Meridian

2.Tropic of Cancer

3.Equator

Which of the above lines is/are a Great Circle?

(a) 1,2 and 3 (b) 1 and 2 only

(c) 1 and 3 only (d) 3 only

87. Which of the following is the correct ascending order of the given minerals in terms of their presence in the Earth's crust?

1.Amphibolite

2.Mica

3.Pyroxene

Select the answer using the code given below:

(a) 2,3,1 (b) 1,2,3

(c) 2,1,3 (d) 1,3,2

88. Which of the following is/are the applied forces in mechanical weathering process?

- 1.Gravitational force
- 2.Expansion force
- 3.Force due to water pressure

Select the answer using the code given below:

- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1,2 and 3

89. Which of the following is/are cold ocean current/currents?

- 1.Alaska Current
- 2.North Atlantic Drift
- 3.West Wind Drift

Select the answer using the code given below:

- (a) 1 only (b) 1 and 2
(c) 2 and 3 (d) 3 only

90. Which one of the following latitudes will experience a minimum angle of the Sun's rays when it is Summer Solstice in the Northern Hemisphere?

- (a) Arctic Circle (b) Equator
(c) Tropic of Cancer (d) Tropic of Capricorn

91. Which of the following statements with reference to Coriolis force is/are correct?

- 1.Coriolis force acts perpendicular to the pressure gradient force
- 2.At the equator, the Coriolis force is zero and the wind blows perpendicular to the isobars

Select the answer using the code given below:

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

92. Which of the following statements with reference to Sleet is/are correct?

- 1.Sleet is frozen raindrops and refrozen melted snow-water
- 2.It occurs when a layer of air with the temperature below freezing point overlies a warm layer near the ground surface

Select the answer using the code given below:

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

93. Humid Subtropical Climate is NOT experienced in which one among the following regions?

- (a) Coastal South Africa
(b) East coast of Australia
(c) South Japan
(d) South Argentina

94. Mahendragiri, the highest peak of the Eastern Ghats, is located in which one of the following states?

- (a) Andhra Pradesh (b) Odisha
(c) Telangana (d) Tamil Nadu

95. Temperate forests of South India, known as 'Sholas' are found in which of the following hills?

- 1.Anaimalai 2.Nilgiris 3.Palani

Select the answer using the code given below:

- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1,2 and 3

96. As per the Annual Report 2023-24 of the Ministry of Mines, Government of India, which of the following states are the major producer of Copper in the country?

- (a) Rajasthan and Gujarat
(b) Rajasthan and Madhya Pradesh
(c) Jharkhand and Rajasthan
(d) Jharkhand and Madhya Pradesh

97. Which one among the following is NOT a major oil field located in Gujarat?

- (a) Ankaleshwar (b) Kosamba
(c) Mehsana (d) Moran

98. As per the Land Revenue Records, any land is categorized as Culturable Waste-Land if it is

left fallow (uncultivated) for more than

- (a) 2 years (b) 3 years
(c) 4 years (d) 5 years

99. Which one among the following is NOT included in the National Food Security Mission

Commercial Crops (NFSM-CC) ?

- (a) Cotton (b) Coffee
(c) Jute (d) Sugar cane

100. Consider the following statements with regard to a steel plant :

I. It was setup in 1964 with Russian collaboration

II. It receives iron ore from the Rourkela region

III. Water and Hydel power is supplied by the Damodar Valley Corporation

Identify the Steel Plant on the basis of the above facts :

- (a) Bhilai Steel Plant
(b) Bokaro Steel Plant
(c) Rourkela Steel Plant
(d) Durgapur Steel Plant

101. An offshore terminal at Vadinar has been developed to reduce pressure from which of the following major ports in India?

- (a) Kandla Port (b) Cochin Port
(c) Mormugao Port (d) New Mangalore Port

102. As per the India State of Forest Report 2021, which one of the following Himalayan states has the highest percentage of its geographical area under forest?

- (a) Arunachal Pradesh (b) Himachal Pradesh
(c) Sikkim (d) Uttarakhand

103. Which of the following statements with reference to L-Wave or Long Wave generated by an earthquake is/are correct?

- 1.They follow the Earth's circumference
2.They travel at more or less at a constant rate

Select the answer using the code given below:

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

104. Which one of the following is formed when volcanic ash is carried by running water and is deposited as a sedimentary layer?

- (a) Basalt (b) Lapilli
(c) Slate (d) Tuff

105. Condensation of water vapour into water is influenced by which of the following factor/factors?

- 1.Volume of air
2.Humidity
3.Temperature

Select the answer using the code given below:

- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1,2 and 3

106. The lactic acid that gets accumulated in the muscle cells during rigorous exercise causing muscle cramps is produced from

- (a) ATP (b) Pyruvate
(c) Ethanol (d) Glucose

107. A chain of peptide containing linear sequences of amino acid linked by peptide bonds best represent the

- (a) Primary structure (b) Secondary structure
(c) Tertiary structure (d) Quaternary structure

108. Cambium is an example of.

- (a) Lateral meristem
(b) Apical meristem

- (c) Intercalary meristem
- (d) Permanent tissue

109. What happens when the fat and oil containing food materials are left outside for a long time?

- (a) Fats and oils in the food get oxidized
- (b) Fats and oils in the food get reduced
- (c) Fats and oils in the food get ice-covered
- (d) No reaction takes place

110. Which is the correct base pairing found in a normal DNA molecule?

- (a) Adenine pairs with Thymine
- (b) Adenine pairs with Guanine
- (c) Adenine pairs with Cytosine
- (d) Thymine pairs with Guanine

111. Clotting of blood involves which one among the following clotting proteins?

- (a) Pathogen
- (b) Fibrinogen
- (c) Macrophage
- (d) Phagocytes

112. Initial discovery of antibiotic penicillin was done by

- (a) Francis Crick
- (b) Maurice Wilkins
- (c) Charles Darwin
- (d) Alexander Fleming

113. The vector of malaria parasites is

- (a) Male Anopheles mosquito
- (b) Male Culex mosquito
- (c) Female Anopheles mosquito
- (d) Female Culex mosquito

114. Which of the following pairs is/are correctly matched?

1. Malaria : Mycobacterium

2. TB : Plasmodium

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

115. Vitamin B1 is also known as

- (a) Riboflavin
- (b) Thiamin
- (c) Retinol
- (d) Tocopherol

116. Gaja Dwar, Ashwa Dwar, Garuda Dwar, Makar Dwar, Shardula Dwar and Hamsa Dwar are located in a building at

- (a) New Delhi
- (b) Varanasi
- (c) Aurangabad
- (d) Thanjevur

117. Which dance form of India has been inscribed into UNESCO's Representative List of Intangible Cultural Heritage of Humanity?

- (a) Kathakali
- (b) Garba
- (c) Bhangra
- (d) Odissi

118. Which Ministry has initiated the "Dhara", a special initiative dedicated to Indian Knowledge System (IKS) ?

- (a) The Ministry of Education
- (b) The Ministry of Home Affairs
- (c) The Ministry of Information & Broadcasting
- (d) The Ministry of Culture

119. The scheme PRASHAD (Pilgrimage Rejuvenation & Spiritual Heritage Augmentation Drive) provides assistance for

- (a) e-Visa Facility
- (b) Multilingual Tourist Infoline
- (c) The development of tourism infrastructures in States & Union Territories
- (d) Promoting Dekho Apna Desh scheme

120. The Joint Venture named 'ASHVINI' to develop nuclear power facility in India is between

- (a) NPCIL and NTPC (b) TMC and VECC
(c) HWB and BARC (d) IGACR and NTPC

121. Which one of the following statements about 'REJUPAVE' is correct ?

- (a) It's a joint venture between Food and Agriculture Organisation (FAO) and Government of India to promote organic farming
(b) It's the name given to the lightest surveillance aircraft developed by DRDO
(c) It's a centrally sponsored flagship Programme of the Ministry of Women and Child Development, Government of India
(d) It's an indigenously developed road construction technology at high altitudes

122. Which of the following statements about 'C-Bot' is/are correct?

1. It's an underwater vehicle to monitor coral reefs
2. It has been developed by CSIR and NIO

Select the answer using the code given below:

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

123. India's Gas Turbine Research Establishment (GTRE), part of the Defence Research and Development Organization (DRDO) has developed an aeroengine which will potentially make India self-reliance in aero-engine technology. What is the name of the engine?

- (a) Ganga (b) Yamuna
(c) Krishna (d) Kaveri

124. Who among the following Presidents/ Vice Presidents of the United States of America was awarded Nobel Peace Prize for work to find peaceful solutions to international conflicts, to advance democracy and human rights, and to promote economic and social development?

- (a) Jimmy Carter (b) Woodrow Wilson
(c) Barack Obama (d) Al Gore

125. Which among the following agencies releases report on 'S.A.F.E. Accommodation : Worker Housing for Manufacturing Growth'?

- (a) RBI
(b) NITI Aayog
(c) National Housing Bank
(d) Housing and Urban Development Corporation

126. An object is placed between infinity and the pole (P) of a convex mirror. The position of the image is

- (a) between pole (P) and the focus (F), behind the mirror
(b) between the focus (F) and infinity, behind the mirror
(c) between the pole (P) and the infinity, in front of the mirror
(d) at the focus (F), behind the mirror

127. The work done in moving a charge of 2 coulomb (C) from point A to point B is 24 J . What is the potential difference between A and B ?

- (a) 48 V (b) 6 V
(c) 12 V (d) 0.08 V

128. Two conducting wires of the same material and of equal lengths and equal diameters are first connected in parallel and then in series in a circuit across the same potential difference. The ratio of heat produced in parallel and series combinations is

- (a) 2: 1 (b) 4: 1
(c) 1: 2 (d) 1: 4

129. The magnetic field inside a long straight solenoid-carrying current

- (a) is zero
(b) decreases as we move towards its end
(c) increases as we move towards its end
(d) is uniform inside the solenoid

130. A car has an initial velocity of 12 m/s and is brought to rest over a distance of 45 m . The acceleration of the car is.

- (a) $+1.6 \text{ m/s}^2$ (b) $+3.2 \text{ m/s}^2$
(c) -1.6 m/s^2 (d) -0.8 m/s^2

131. The universal constant of gravitation G has the unit

- (a) N (b) m/s
(c) Joule (d) $\text{N} - \text{m}^2/\text{kg}^2$

132. Two bodies of unequal masses are dropped from a tower. At any instant, they have equal

- (a) Momentum (b) Acceleration
(c) Potential energy (d) Kinetic energy

133. The frequency (f), wavelength (λ) and speed (v) of a sound wave are related as

- (a) $f = v\lambda$ (b) $\lambda = vf$
(c) $f = \frac{\lambda}{v}$ (d) $v = \lambda f$

134. The length of a simple pendulum is increased four times to its previous value while the mass is doubled. What is the ratio of the new and previous time period of the pendulum?

- (a) 3:1 (b) 2:5
(c) 2:1 (d) 3:

135. Which one of the following is NOT a basic property of electric charge ?

- (a) Charges can be added
(b) Charge is conserved
(c) Charge on a body is always an integral multiple of an electron or a proton charge
(d) Charges can be created and destroyed in an isolated system

136. What happens when the sunlight travels through the Earth's atmosphere ?

- (a) The blue colour is scattered more compared to the red colour
(b) The red colour is scattered more compared to the blue colour
(c) Both the blue and the red colours are scattered equally
(d) The blue colour is not scattered but the red colour is scattered the most

137. When a solid body is partially or completely immersed in a fluid, the fluid exerts an upward force on the body. The magnitude of the force is equal to

1. the mass of the body
2. the weight of the displaced fluid by the body

Which of the above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

138. If the length of a copper wire is increased by twice, then its resistivity will be

- (a) Doubled (b) Halved
(c) Same (d) One-fourth

139. Which one of the following is dimensionless quantity?

- (a) Stress (b) Strain
(c) Pressure (d) Force

140. A system that does NOT allow exchange of heat with its surrounding is called

- (a) Adiabatic system
(b) Non-adiabatic system
(c) Equilibrium system
(d) Non-equilibrium system

141. If the speed of light in carbon disulfide and vacuum is X and Y respectively, then

- (a) $X < Y$ (b) $X > Y$
(c) $X \geq Y$ (d) $X = Y$

142. A current through a horizontal power line flows in east to west direction. What will be the direction of magnetic field at a point directly below it when viewed from east end ?

- (a) Clockwise in a plane perpendicular to the wire
(b) Anti-clockwise in a plane perpendicular to the wire
(c) Clockwise in a plane of parallel to the wire
(d) Anti-clockwise in a plane of parallel to the wire

143. Which one among the following elements is known to be discovered the earliest?

- (a) Copper (b) Gold
(c) Oxygen (d) Uranium

144. When a light ray passes through from air to water with a non-zero angle the ray will be.

- (a) bending towards the normal
- (b) bending away from the normal
- (c) propagating in straight line
- (d) reflected towards the opposite direction

145. Which one of the following equations related to the motion of an object is NOT correct?

(Symbols carry their usual meanings)

- (a) $s = ut + \frac{1}{2}at^2$
- (b) $u = v - at$
- (c) $u^2 - v^2 = 2as$
- (d) Distance travelled during n^{th} second $= u + \frac{1}{2}a(2n - 1)$

146. Which one of the following statements is NOT correct?

- (a) An ammeter is always connected in series in the circuit to measure the current
- (b) A Voltmeter is always connected to parallel in a circuit to measure the voltage
- (c) A voltmeter has a high resistance and an ammeter has a low resistance
- (d) A voltmeter has a low resistance and an ammeter has a high resistance

147. Which one of the following is a non-conventional source of energy?

- (a) Petroleum
- (b) Natural Gas
- (c) Tidal energy
- (d) Coal

148. If three resistors of 1 Ohm each connect in parallel to each other the resultant resistance is

- (a) 1 Ohm
- (b) $\frac{1}{3}$ Ohm
- (c) 3 Ohm
- (d) 9 Ohm

149. We hear an echo due to

- (a) Refraction of sound waves
- (b) Reflection of sound waves
- (c) Diffraction of sound waves
- (d) Resonance due to sound waves

150. At uniform speed the acceleration is

- (a) Maximum
- (b) Minimum
- (c) Zero
- (d) Constant