

1. Which of the following statements about the National Centre for Good Governance (NCGG) are correct ?
1. NCGG was set up by the Sardar Vallabhbhai Patel National Police Academy.
 2. The National Institute of Administrative Research (NIAR) has been rechristened and subsumed into NCGG.
 3. NCGG is an apex-level autonomous body under the Ministry of Home Affairs.
 4. The Chairperson of the Governing Body of the NCGG is the Cabinet Secretary to the Government of India.
- Select the correct answer using the code given below :
- (a) 1, 2 and 4
(b) 2 and 4 only
 (c) 1 and 3 only
 (d) 3 and 4 only
2. Match List I with List II and select the correct answer using the code given below the Lists :
- | <i>List I</i>
(International
Yoga Day) | <i>List II</i>
(Theme) |
|--|--------------------------------------|
| A. 6 th Edition | 1. Yoga for well-being |
| B. 7 th Edition | 2. Yoga for health –
Yoga at home |
| C. 8 th Edition | 3. Yoga for Vasudhaiva
Kutumbakam |
| D. 9 th Edition | 4. Yoga for Humanity |
- Code :
- | | A | B | C | D |
|------------|---|---|---|---|
| (a) | 2 | 4 | 1 | 3 |
| (b) | 2 | 1 | 4 | 3 |
| (c) | 3 | 1 | 4 | 2 |
| (d) | 3 | 4 | 1 | 2 |
3. The joint multinational maritime exercise named IBSAMAR is conducted by the Navies of which of the following countries ?
- (a) India, Bangladesh, Sri Lanka and Maldives
 (b) India, Bangladesh and South Africa
 (c) India, Bangladesh, Sri Lanka and Mauritius
(d) India, Brazil and South Africa
4. In which one of the following cities is the Heliopolis Commonwealth War Grave Cemetery located ?
- (a) Marseille
 (b) Washington D.C.
(c) Cairo
 (d) Athens
5. Under which one of the following rivers has India's first underwater metro rail tunnel been constructed ?
- (a) Yamuna
 (b) Ganga
(c) Hooghly
 (d) Gomti
6. Which among the following set of national teams participated in the South Asian Football Federation Championship – 2023 ?
- (a) Sri Lanka, India, Bangladesh
(b) Lebanon, Kuwait, Pakistan
 (c) India, Pakistan, Myanmar
 (d) Nepal, Sri Lanka, Bhutan
7. Which butterfly species was recently named the official butterfly of Jammu and Kashmir ?
- (a) Noble's Helen
 (b) Kaiser-i-Hind
 (c) Blue Duke
(d) Blue Pansy

8. Which company operated the ill-fated Titan submersible which recently imploded killing all five passengers while on a dive to visit the Titanic shipwreck under the waters of the North Atlantic ?

(a) Odyssey Marine Exploration
(b) M.A.R.E. (Marine Adventure for Research and Education)
(c) OceanGate Expeditions
(d) Seafarer Exploration Corporation

9. Which among the following is India's longest road tunnel ?

(a) Atal Tunnel
(b) Kuthiran Tunnel
(c) Dr. Syama Prasad Mookerjee Tunnel
(d) Banihal Qazigund Road Tunnel

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

List I
(Padma
Vibhushan / Padma
Bhushan Awardee,
2023)

A. Dilip Mahalanabis (posthumous)
B. Sudha Murthy
C. S.M. Krishna
D. S.L. Bhyrappa

List II
(Category)

1. Literature & Education
2. Public Affairs
3. Social Work
4. Medicine

Code :

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

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

List I
(Festivals of North
East India)

A. Hornbill Festival
B. Chapchar Kut
C. Nongkrem Dance Festival
D. Saga Dawa

List II
(State)

1. Meghalaya
2. Sikkim
3. Nagaland
4. Mizoram

Code :

A B C D
(a) 2 4 1 3
(b) 3 1 4 2
(c) 3 4 1 2
(d) 2 1 4 3

12. From which one of the following countries has India procured the S-400 Triumf air defence missile system ?

(a) United Kingdom
(b) U.S.A.
(c) France
(d) Russia

13. Abhinav Bindra is the winner of the first ever individual Olympic gold medal for India. He won gold in which shooting event and in which Olympic Games ?

(a) 10 meter air pistol, London
(b) 10 meter air rifle, London
(c) 10 meter air rifle, Beijing
(d) 10 meter air pistol, Beijing

14. Cheetahs were recently re-introduced to India from Africa. From which language is the name 'Cheetah' derived ?
- (a) Swahili
(b) Afrikaans
(c) Somali
(d) Sanskrit
15. A new species of pit-viper was discovered in 2019 and named after the State in which it was found. Identify the State from among the following :
- (a) Kerala
(b) Arunachal Pradesh
(c) Andaman and Nicobar Islands
(d) Assam
16. Who among the following set of players from India have either won or secured the runner-up position in the All England Badminton Tournament ?
- (a) Prakash Padukone, P.V. Sindhu, Parupalli Kashyap
(b) Pullela Gopichand, Saina Nehwal, Lakshya Sen
(c) Prakash Padukone, Pullela Gopichand, Srikanth Kidambi
(d) Lakshya Sen, Saina Nehwal, P.V. Sindhu
17. Who among the following leaders recently won the election to the office of the President of Turkey ?
- (a) Recep Tayyip Erdoğan
(b) Kemal Kiliçdaroğlu
(c) Ahmet Necdet Sezer
(d) Abdullah Gül
18. Georgi Gospodinov Georgiev won the International Booker Prize, 2023 for the darkly comic novel by the name :
- (a) *The Promise*
(b) *Shuggie Bain*
(c) *Time Shelter*
(d) *Girl, Woman, Other*
19. The Grand Order of the Chain of the Yellow Star is the highest civilian honour of which among the following countries ?
- (a) Fiji
(b) Papua New Guinea
(c) Egypt
(d) Suriname
20. Which one among the following correctly represents the theme on which the interiors of the new Parliament Building is based ?
- | | <i>Lok Sabha</i> | <i>Rajya Sabha</i> |
|-----|------------------|--------------------|
| (a) | Lotus | Banyan |
| (b) | Peacock | Lotus |
| (c) | Peacock | Banyan |
| (d) | Lotus | Peacock |

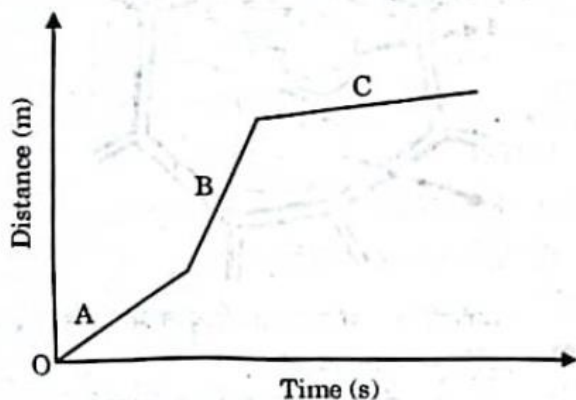
1. A person can see near objects clearly through his eyes but **cannot** see distant objects clearly. The possible reason(s) for this defect could be :

1. Excessive curvature of the eye lens.
2. The eye-ball has become too small.
3. The focal length of the eye lens is too large.
4. Elongation of the eye-ball.

Select the correct answer using the code given below :

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

22. Consider a journey by a car represented by the graph given below in three parts A, B and C. The speed of the car in these parts is v_a , v_b and v_c , respectively :



Which one of the following is correct in this case ?

- (a) $v_a < v_b < v_c$
- ☒ (b) $v_b > v_a > v_c$
- (c) $v_a = v_b = v_c$
- (d) $v_a > v_b ; v_a > v_c$

23. A concave mirror of radius of curvature 50 cm is used to form an image of an object kept at a distance of 25 cm from the mirror on its principal axis. What will be the position of the image from the mirror ?

- ☒ (a) At infinity
- (b) At 50 cm
- (c) At 25 cm
- (d) At 75 cm

24. If the Moon is brought closer to the Earth such that its distance from the Earth becomes half of the original distance, then the gravitational force of attraction between the Earth and the Moon would :

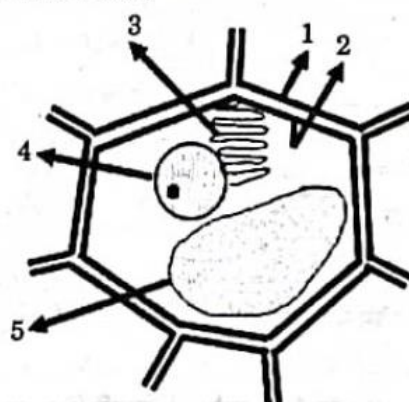
- (a) reduce to half of its original value.
- (b) increase to two times of its original value.
- (c) remain the same as the original value.
- ☒ (d) increase to four times of its original value.

25. Sonic boom is produced when a source of sound travels at a speed :

- ☒ (a) greater than the speed of sound.
- (b) greater than the speed of light.
- (c) lesser than the speed of sound.
- (d) equal to the speed of sound.

26. Which one among the following are the correct symbols for the elements gold, tin and lead, respectively ?

- (a) Ga, Sb, Pb
- (b) At, Sn, Le
- ☒ (c) Au, Sn, Pb
- (d) Au, Sb, Pb

27. How much percentage of carbon dioxide is present in the atmosphere of Venus and Mars ?
- 45 – 47%
 - 52 – 55%
 - 74 – 77%
 - 95 – 97%
28. Which among the following methods is used to separate the constituents present in a compound ?
- Electrochemical method
 - Heating method
 - Fractional distillation
 - Decomposition followed by ion exchange
29. During white-washing of walls, slaked lime reacts slowly with carbon dioxide in air to form a thin layer of calcium carbonate on the walls. Which of the following reactions represents this correctly ?
- $\text{CaO (s)} + \text{CO}_2 \text{ (g)} \rightarrow \text{CaCO}_3 \text{ (s)}$
 - $\text{CaO (l)} + \text{CO}_2 \text{ (g)} \rightarrow \text{CaCO}_3 \text{ (s)}$
 - $\text{Ca(OH)}_2 \text{ (l)} + \text{CO}_2 \text{ (l)} \rightarrow \text{CaCO}_3 \text{ (s)} + \text{H}_2\text{O (l)}$
 - $\text{Ca(OH)}_2 \text{ (aq)} + \text{CO}_2 \text{ (g)} \rightarrow \text{CaCO}_3 \text{ (s)} + \text{H}_2\text{O (l)}$
30. Which one of the following equations is the balanced chemical equation for the given reaction ?
- $$\text{Fe} + \text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + \text{H}_2$$
- $\text{Fe} + 4\text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + \text{H}_2$
 - $3\text{Fe} + \text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + 2\text{H}_2$
 - $3\text{Fe} + 4\text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + 4\text{H}_2$
 - $3\text{Fe} + 4\text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + \text{H}_2$
31. The term Phyllotaxy refers to the pattern of :
- arrangement of leaves.
 - branching in stem.
 - flower formation on branch.
 - arrangement of flowers.
32. Chromosomes are composed of DNA and :
- lipids
 - vitamins
 - proteins
 - carbohydrates
33. Bacteria have an undefined nuclear region which lacks a nuclear membrane and contains only DNA without proteins. Such a region is called :
- Nucleosome
 - Nucleus
 - Nucleoprotein
 - Nucleoid
34. In the following simplified diagram of a plant cell, five parts/organelles are marked from 1 to 5 :
- 
- Which one of the following correctly represents the above parts/organelles ?
- 1 – cell membrane; 2 – cell wall; 3 – vacuole; 4 – endoplasmic reticulum; 5 – nucleus
 - 1 – cell wall; 2 – cell membrane; 3 – endoplasmic reticulum; 4 – vacuole; 5 – nucleus
 - 1 – cell wall; 2 – cell membrane; 3 – endoplasmic reticulum; 4 – nucleus; 5 – vacuole
 - 1 – cell wall; 2 – cell membrane; 3 – vacuole; 4 – endoplasmic reticulum; 5 – nucleus

35. Which one of the following is the language of the famous political treatise *Amuktamalyada* ?
- Sanskrit
 - Tamil
 - Kannada
 - ☒ Telugu
36. Which one of the following statements about the Shvetambara Sect of Jainism is **not** correct ?
- It refers to monks, who wear white clothes.
 - ☒ It refers to monks, who migrated to the south of Vindhyas in 4th century BCE.
 - They recognized the existence of canonical texts including the 12 Angas.
 - They believed that women can also attain salvation.
37. Where is the Vikramkhoh Cave located ?
- ☒ Odisha
 - Bihar
 - Telangana
 - West Bengal
38. Consider the following statements regarding the 'Levallois Technique' :
- It refers to making perforated Harappa pottery.
 - It refers to making prehistoric flake tools.
- Which of the statements given above is/are correct ?
- 1 only
 - ☒ 2 only
 - Both 1 and 2
 - Neither 1 nor 2
39. Which of the following statements is/are correct ?
- The Bakshali Manuscript written in the Gatha language (a refined version of old Prakrit) using the Sharada script deals with topics such as fractions, square roots, arithmetic and geometric progressions.
 - In the field of geometry, Aryabhatta described the various properties of a circle giving a very accurate value for pi (π) correct to four decimal places at 3.1416.
 - Sharangadhara Samhita is an important text on political system of ancient India.
- Select the correct answer using the code given below :
- 1, 2 and 3
 - 1 and 3 only
 - ☒ 1 and 2 only
 - 2 only
40. Which one of the following is **not** correct about the Indian Independence Act, 1947 ?
- The Bill for the Indian Independence Act was introduced in Parliament on July 4 and received the Royal Assent on July 18, 1947.
 - ☒ Act of 1947 laid down the basic framework of the Indian Constitution.
 - The Act provided for the establishment of two independent Dominions to be known as India and Pakistan.
 - The Act empowered the Constituent Assembly of each Dominion to have unlimited power to frame and adopt any constitution.

41. Which one of the following set of trees does **not** belong to Temperate Floral Zone of Himalaya ?

- (a) Cashewnut and Magnolia
- (b) Oak and Maple
- (c) Rhododendrons
- (d) Birch and Laurels

42. Which one of the following statements about plantation agriculture is **not** correct ?

- (a) Plantation farm estates are scientifically managed.
- (b) Plantation farming requires heavy capital outlay.
- (c) Plantation farm lands have mainly foreign ownership and local labour.
- (d) Plantation farmers rear the animals for sale.

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

List I
(Name of Shifting
Cultivation)

List II
(Country)

- | | |
|------------|--------------|
| A. Roca | 1. Sri Lanka |
| B. Chena | 2. Thailand |
| C. Masole | 3. Brazil |
| D. Tamarai | 4. Zaire |

Code :

- | | A | B | C | D |
|-----|---|---|---|---|
| (a) | 2 | 4 | 1 | 3 |
| (b) | 2 | 1 | 4 | 3 |
| (c) | 3 | 4 | 1 | 2 |
| (d) | 3 | 1 | 4 | 2 |

44. Consider the following statements with reference to Paleolithic tools :

1. Isampur was a well-known center of stone tool manufacture located in Gulbarga district of Karnataka and was situated along a small seasonal stream known as Kamta Halla.
2. A Paleolithic blade is a flake tool, the length of which is more than twice its width.

Which of the statements given above is/are correct ?

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

45. Consider the following statements about science in medieval South India :

1. The Katapayadi system of numerals, which was invented by Vararuchi of Kerala, the author of Chandra Vakyas, was used for calculating the position of Moon on any day of the year.
2. Achyuta Pisharati (1550 – 1621) wrote Uparagakriyakrama, a text on eclipses.
3. Ravi Varma of Mahodayapuram set up an observatory and is also said to have inaugurated the Kollam era.

Which of the statements given above is/are correct ?

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

46. Which of the following dynasties of South India issued their documents first in Prakrit and later in Sanskrit ?
- The Cholas of Tamil Nadu
 - The Pandyas of the post-Sangam Age
 - ☒ The Pallavas of Tondaimandalam
 - The Gangas of Kalinganagara
47. Who was the author of the Gwalior Prashasti of Mihira Bhoja ?
- Nagabhata
 - Vatsaraja
 - ☒ Baladitya
 - Kakkuka
48. The Sahajiya Cult, which can be traced back to 10th and 11th centuries, is usually associated with :
- ☒ early Bhakti traditions
 - a kind of early Sufism
 - early Upanishadic philosophy
 - Buddhism
49. The landmark Supreme Court judgment in the case *Subhash Sharma v. Union of India* (1991) refers to which one of the following basic features of the Constitution of India ?
- ☒ Judicial Review
 - Rule of Law
 - Free and fair elections
 - Fundamental Rights
50. Which of the following statements about the Panchayats in India, as per the Constitution of India is/are correct ?
- There is a provision for reservation of seats for the Scheduled Castes and Scheduled Tribes.
 - Panchayats are not authorised to collect taxes.
- Select the correct answer using the code given below :
- ☒ 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
51. Which one of the following statements about Mission Indradhanush, launched by the Government of India in 2014, is correct ?
- It relates to provisions for Child Health Screening and Early Intervention Services.
 - It meets the diverse health needs of adolescents.
 - ☒ It aims to increase the full immunisation coverage for children.
 - Its objective is to achieve universal access to equitable, affordable, and quality healthcare services.
52. Which one of the following amendments to the Constitution of India has introduced reservations in education and in public employment for people from the Economically Weaker Sections (EWS) of society ?
- The Constitution (101st Amendment) Act
 - The Constitution (102nd Amendment) Act
 - The Constitution (122nd Amendment) Act
 - ☒ The Constitution (103rd Amendment) Act

53. Which among the following Fundamental Rights is **not** suspended when an Emergency is declared ?

- (a) Protection in respect of conviction for offences
- (b) Right to constitutional remedies
- (c) Right to move freely throughout the territory of India
- (d) Equality before law •

54. Any question pertaining to the disqualification of a member of the Lok Sabha on the ground of defection is decided by :

- (a) The President of India
- (b) The Speaker of the Lok Sabha
- (c) The Supreme Court of India
- (d) The concerned Political Party

55. Which one of the following statements about Indian Maritime University (IMU) is **not** correct ?

- (a) It was established through an Act of Parliament as a Central University.
- (b) It was established primarily to support the Indian Navy.
- (c) It is located in Chennai.
- (d) It was established to extend the benefits of knowledge and skill for development of individuals and society by associating closely with local, regional and national issues of development.

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

Plateau	Continent
1. Abyssinian	: Africa
2. Patagonian	: Australia
3. Anatolian	: Asia
4. Iberian	: North America

Select the correct answer using the code given below :

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

57. Which of the following pairs of Isolines and its properties are correctly matched ?

1. Isonif	: Snowfall
2. Isohel	: Sunshine
3. Isohaline	: Salinity
4. Isohypse	: Cloudiness

Select the correct answer using the code given below :

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

58. Which of the following is the correct order of clouds in ascending order (lowest to highest) of height from surface ?

1. Cirrocumulus
2. Nimbostratus
3. Cirrus
4. Altostratus

Select the correct answer using the code given below :

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

59. Which of the following pairs of revolution in agriculture sector and its production are correctly matched?

1. Pink revolution : Shrimp production
2. Yellow revolution : Oilseeds production
3. Black revolution : Biodiesel production
4. Golden revolution : Egg production

Select the correct answer using the code given below :

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

60. Which one among the following statements about National Highways Authority of India (NHAI) is **not** correct ?

- (a) NHAI collects fees on the National Highway.
- (b) NHAI conducts training of Highway Engineers at entry level and in-service.
- (c) NHAI provides consultancy and construction services in India and abroad.
- ☒ (d) NHAI regulates and controls the plying of vehicles for its proper management.

61. As per the Cabinet Resolution of 1st January 2015, the NITI Aayog consists of :

1. Prime Minister of India
2. Governing Council comprising of Chief Minister of all the States and Lieutenant Governors of Union Territories
3. Rural Development Minister
4. Chief Executive Officer to be appointed by the Prime Minister

Select the correct answer using the code given below :

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

62. The executive is given an advance grant to meet temporary and running requirements of Government of India in the beginning of the new financial year until the demands are voted by the legislature. This is known as :

- (a) Vote of Credit
- ☒ (b) Vote on Account
- (c) Appropriation Bill
- (d) Advance Account

63. Which of the following is/are United Nations Sustainable Development Goal(s) ?

1. Decent work and economic growth
2. Peace, justice and strong institutions
3. Responsible consumption and production

Select the correct answer using the code given below :

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

64. Consider the following statements on 'Fog' :

1. Fog is simply a cloud that forms close to the ground.
2. Radiation fog is associated with radiation cooling of the land at night.
3. Advection fog forms when moisture is blown over a cold surface and is chilled by contact.

Which of the statements given above are correct ?

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

65. Which one of the following landforms is/are formed by wind erosion ?

- (a) Cirque
- (b) Stack
- ☒ (c) Zeugen
- (d) Stack and Zeugen both

66. Which one of the following crops is *not* cultivated under dryland farming ?

- (a) Jowar
- (b) Ragi
- ☒ (c) Sugarcane
- (d) Groundnut

67. Which one of the following forms of settlement develops around a lake ?

- (a) Linear
- (b) Cross-shaped
- ☒ (c) Circular
- (d) Square

68. How can resources be classified on the basis of their origin ?

- ☒ (a) Biotic and abiotic
- (b) Renewable and non-renewable
- (c) Individual and community
- (d) Potential and reserve

69. Which one among the following is the highest mountain in Africa ?

- (a) Atlas Mountain
- ☒ (b) Mount Kilimanjaro
- (c) Mount Kenya
- (d) Mount Elgon

70. Which of the following action(s) by the Government would lead to contraction of money supply in the economy ?

1. Purchase of Treasury Bills by the central bank from public
2. Sale of Treasury Bills by the central bank to public
3. Sale of foreign exchange by the central bank
4. Purchase of foreign exchange by the central bank

Select the correct answer using the code given below :

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

71. Which of the following are included in the definition of Narrow Money ?

1. Currency with the public
2. Demand deposits
3. 'Other' deposits with Reserve Bank of India
4. Banker's deposits with Reserve Bank of India

Select the correct answer using the code given below :

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

72. Which of the following is/are the effects of devaluation or depreciation of currency?

1. It leads to increase in imports and decrease in exports.
2. It leads to increase in exports and decrease in imports.
3. It leads to increase in domestic inflation.
4. It leads to decrease in domestic inflation.

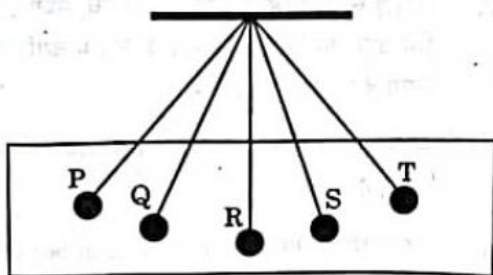
Select the correct answer using the code given below :

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

73. Which one of the following taxes is *not* subsumed under the Goods and Services Tax in India?

- ☒ (a) Customs Duties
- (b) Central Excise Duties
- (c) Service Tax
- ☒ (d) Taxes on Petroleum and Petroleum Products

74. The following diagram shows a pendulum at different positions. Which one of the following statement is true?



- (a) The pendulum has minimum potential energy at positions P and T.
- (b) The pendulum has minimum potential energy at positions Q and S.
- ☒ (c) The pendulum has minimum potential energy at position R.
- (d) The pendulum has same potential energy at all positions.

75. In which of the following media is the speed of sound the maximum?

- (a) Glass
- ☒ (b) Stainless steel
- (c) Water
- (d) Oxygen

76. A charged particle moves through a magnetic field B with a velocity v . Which one of the following statements is true for the force (F) experienced by the particle?

- (a) F is maximum when v and B are parallel to each other.
- (b) F is maximum when v and B are anti-parallel to each other.
- ☒ (c) F is maximum when v and B are perpendicular to each other.
- (d) The force F is independent of the angle between v and B .

77. Which one of the following is the correct relation between Celsius and Fahrenheit temperature scales?

(Symbols carry their usual meanings)

- (a) $T_F = \frac{10}{3} T_C + 32$
- (b) $T_F = \frac{5}{9} T_C + 36$
- (c) $T_F = \frac{9}{5} T_C + 36$
- ☒ (d) $T_F = \frac{9}{5} T_C + 32$

78. Which one of the following statements is correct regarding the travel of a light beam from a rare to a dense medium ?

- ☒ (a) A light beam travelling from a rare medium to a dense medium slows down and bends towards the normal.
- (b) A light beam travelling from a rare medium to a dense medium speeds up and bends towards the normal.
- (c) A light beam travelling from a rare medium to a dense medium slows down and bends away from the normal.
- (d) A light beam travelling from a rare medium to a dense medium speeds up and bends away from the normal.

79. In which one of the following cases do both physical and chemical changes take place ?

- ☒ (a) Burning of candle
- (b) Freezing of water
- (c) Cooking of food
- (d) Rusting of iron

80. Which one of the following statements is correct about diamond and graphite ?

- (a) Diamond and graphite have similar physical and chemical properties.
- ☒ (b) Diamond is hard but graphite is smooth and slippery.
- (c) Diamond and graphite are both non-conductors of electricity.
- (d) Both diamond and graphite have similar structures.

81. Which one among the following State capitals is closest to the Equator ?

- (a) Hyderabad
- (b) Bhubaneswar
- ☒ (c) Panaji
- (d) Mumbai

82. Which is the only country in the world to officially proclaim the Gross National Happiness (GNH) as the measure of the country's progress ?

- (a) Finland
- ☒ (b) Bhutan
- (c) Nepal
- (d) Switzerland

83. Consider the following statements about clouds :

1. Two major forms of clouds are stratiform and cumuliiform.
2. According to the altitude, clouds are classified as high clouds, middle clouds and low clouds.
3. Stratus, nimbostratus and stratocumulus are types of high clouds.
4. Clouds having nimbo attached to their name produce precipitation.

Which of the statements given above are correct ?

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

34. Which one of the following expenditures is subtracted from Fiscal Deficit to arrive at Primary Deficit ?
- Defence expenditure
 - Expenditure on subsidies
 - (c) Interest payments**
 - Pension
85. The Wholesale Price Inflation has increased in India during 2021 – 2022 due to which of the following factors ?
- Sharp increase in international prices of crude oil
 - Decrease in economic activity post-Covid
 - Disruption of global supply chain
 - High freight cost
- Select the correct answer using the code given below :
- 2 and 3 only
 - (b) 1, 3 and 4**
 - 1 and 2 only
 - 1 and 4 only
86. What would be the impact on the economy if people start holding more currency in hand and less in deposits ?
- Money demand will increase
 - (b) Money multiplier will decrease**
 - Money multiplier will increase
 - Money demand will decrease
87. SDG India Index, developed by NITI Aayog, includes 17 SDGs for each State. Which one of the following is **not** included in that index ?
- Zero hunger
 - (b) Reduced unemployment**
 - Life below water
 - Responsible consumption and production
88. Other things remaining constant, the market supply for a good increases if :
- its price increases.
 - price of its factors of production decreases.
 - price of other goods decreases.
- Select the correct answer using the code given below :
- 1 and 2 only
 - 1 and 3 only
 - 2 and 3 only
 - (d) 1, 2 and 3**
89. Consider the following statements regarding poverty in India :
- While determining poverty line in India, a minimum level of food requirement, clothing, footwear, fuel and light, educational and medical requirements, etc. are determined for subsistence.
 - The accepted average calorie requirement in India is 2400 calories per person per day in rural areas and 2100 calories per person per day in urban areas.
- Which of the statements given above is/are correct ?
- 1 only
 - 2 only
 - (c) Both 1 and 2**
 - Neither 1 nor 2

90. Which of the following statements is/are correct ?

1. Shivaji sent an ambassador to Bombay to negotiate an agreement with the English.
2. His chief motive was to secure English aid against the Siddis of Danda-Rajpuri.
3. He wanted a supply of grenades, mortars and other ammunition.

Select the correct answer using the code given below :

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

91. The famous Hathigumpha inscription of Kharavela mentions that in the eleventh year of his reign, Kharavela destroyed a confederacy of Tamil States, "Tramiradesa Sanghatam", which had long been a source of danger. How old was this confederacy of Tamil States at that time ?

- (a) 110 years old
- (b) 111 years old
- (c) 112 years old
- ☒ (d) 113 years old

92. Which of the following statements about the Vaishnava saint of Assam, Shankardeva, is/are correct ?

1. His teachings are often known as the Bhagavati dharma.
2. He encouraged the establishment of satras or monasteries and namghars or prayer halls for the transmission of spiritual knowledge.
3. His major compositions include the Kirtana-ghosha.

Select the correct answer using the code given below :

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

93. Abdur Razzaq, an ambassador of the ruler of Persia, was sent to Calicut in the fifteenth century. He was greatly impressed by the :

- ☒ (a) Fortifications of Calicut
- (b) Climatic conditions of the coastal town
- (c) High quality spices of the place
- (d) Musical traditions of the place

94. Which of the following statements about the 'Race to Zero Campaign' is/are correct ?

1. One of the main objectives of the Race to Zero Campaign is to build momentum around the shift to a decarbonized economy.
2. It is related to the theory of Zero-Sum Game.

Select the correct answer using the code given below :

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

95. Which of the following statements about National Action Plan on Climate Change (NAPCC) with reference to India is/are correct ?
1. It emphasises that maintaining a high growth rate is essential for raising the living standards of the vast majority of the people of India and reducing their vulnerability to the impact of climate change.
 2. It was released in 2014.
- Select the correct answer using the code given below :
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
96. What does India's "Blue growth" refer to ?
- (a) Upgradation of Indian Air Force
 - (b) Discouraging farmers from using pesticides
 - (c) A long-term strategy to support sustainable growth in the marine and maritime sectors
 - (d) Socio-economic empowerment of India's blue collar workers in the unorganized sector
97. Which of the following statements about 'Operation Sadbhavana' in Ladakh is/are correct ?
1. Indian Army undertakes welfare activities, such as running of Army Goodwill Schools in remote areas of Ladakh.
 2. It aims at building harmonious relationships between religious communities in Ladakh.
- Select the correct answer using the code given below :
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
98. Which one of the following is *not* a permanent member of the UN Security Council ?
- (a) France
 - (b) China*
 - (c) Japan
 - (d) United Kingdom
99. Consider the following statements about some planets in the solar system :
1. Mercury has no atmosphere.
 2. Venus has two moons.
 3. There is no land on Jupiter.
 4. Rings of Saturn are composed of lumps of ice and dust.
- Which of the statements given above are correct ?
- (a) 1 and 2 only
 - (b) 3 and 4 only
 - (c) 1, 2 and 3
 - (d) 1, 3 and 4*
100. Which one of the following passes is *not* located in Indian Himalayan region ?
- (a) Zojila
 - (b) Bolan*
 - (c) Shipkila
 - (d) Lipulekh

101. Which one among the following substances is a compound ?
 (a) Sugar
 (b) Air
 (c) Milk
 (d) Tea
102. What is the total number of naturally occurring elements ?
 (a) 114
 (b) 94
 (c) 86
 (d) 82
103. Which one of the following statements regarding acids is **not** correct ?
 (a) Hydrochloric acid is present in the gastric juice secreted by the stomach.
 (b) Acetic acid is the main constituent of vinegar.
 (c) Oxalic acid is found in tamarind paste.
 (d) Lemon and orange juices contain citric acid and ascorbic acid respectively.
104. Which one of the following is the correct combination of organelles and their functions ?
 (a) Mitochondria – Respiration; Chloroplast – Photosynthesis; Ribosome – Protein Synthesis; Rough endoplasmic reticulum – Transport of proteins
 (b) Mitochondria – Respiration; Chloroplast – Photosynthesis; Ribosome – Transport of proteins; Rough endoplasmic reticulum – Protein synthesis
 (c) Mitochondria – Respiration; Chloroplast – Protein synthesis; Ribosome – Photosynthesis; Rough endoplasmic reticulum – Transport of proteins
 (d) Mitochondria – Photosynthesis; Chloroplast – Respiration; Ribosome – Protein synthesis; Rough endoplasmic reticulum – Transport of proteins
105. Cell wall is absent in which one of the following organisms ?
 (a) Bacteria
 (b) Diatom
 (c) Mushroom
 (d) Tapeworm
106. Water goes up through xylem vessels in tall trees. The process in plants and properties of water that help in upward movement are :
 (a) Respiration and cohesion
 (b) Transpiration pull, cohesion and adhesion
 (c) Root pressure, cohesion and adhesion
 (d) Transpiration and adhesion
107. Energy and nutrients flow from one trophic level to another in an ecosystem. Which one of the following statements correctly describes the direction of flow of energy and nutrients in an ecosystem ?
 (a) Energy flow is cyclic and nutrient flow is unidirectional.
 (b) Energy flow is unidirectional and nutrient flow is cyclic.
 (c) Both energy and nutrient flow are unidirectional.
 (d) Both energy and nutrient flow are cyclic.
108. Which one of the following is a saprophyte ?
 (a) *Cuscuta*
 (b) *Rhizopus*
 (c) *Spirogyra*
 (d) Grass

109. In ovules of Angiosperms, which one of the following is *not* a haploid cell ?

- (a) Nucellus
- (b) Synergid
- (c) Egg
- (d) Antipodal

110. Arrange the following events associated with Shivaji in chronological order :

1. Attack on Afzal Khan
2. Capture of Torna
3. Attack on Shaista Khan
4. Annexation of Javli

Select the correct answer using the code given below :

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

111. Who among the following is the author of the book '*The Indian Struggle 1920 - 1942*' ?

- (a) Vinayak Damodar Savarkar
- (b) Subhas Chandra Bose
- (c) Vallabhbhai Patel
- (d) Sarat Chandra Bose

112. Who among the following is *not* a woman Nayanar saint ?

- (a) Karaikkal Ammaiyar
- (b) Mangayarkkarasiyar
- (c) Andal
- (d) Isaiganiyar

113. Which one of the following pairs of terms and their meanings is *not* correctly matched ?

- (a) Nagarakkani : Land owned by the nagaram
- (b) Nattar : Male serpent deity
- (c) Yupa : Sacrificial post
- (d) Viragal : 'Hero stone' in the Tamil Nadu area

114. Where is the famous Gupta period Deogarh Temple situated ?

- (a) Uttar Pradesh
- (b) Madhya Pradesh
- (c) Chhattisgarh
- (d) Rajasthan

115. Consider the following statements with reference to the Nataraj bronze sculpture of Chola period :

1. Shiva is shown balancing himself on his right leg representing *tirobhava*.
2. Shiva is shown raising his left leg in *bhujangatrasita* stance, representing kicking away the illusion from the devotee's mind.
3. The main right hand holds the *damaru*, Shiva's favourite musical instrument.

Which of the statements given above is/are correct ?

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

116. Which of the following statements about ASEAN are correct ?

1. The Chairmanship of ASEAN rotates annually based on the alphabetical order of the English names of Member States.
2. The Chairmanship is decided by voting among the Member States.
3. "One Vision, One Identity, One Community" is the ASEAN motto.
4. 12th August is celebrated as ASEAN Day.

Select the correct answer using the code given below :

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

117. Consider the following statements about the Public Distribution System :

1. The Public Distribution System is operated under the joint responsibility of Centre and State/Union Territories.
2. Food Corporation of India has assumed the responsibility for procurement, storage and transportation of food grains to the State Governments.
3. Both Centre and State have the joint responsibility to identify eligible beneficiaries.
4. Some States also distribute additional items of mass consumption through the PDS outlets such as pulses, edible oil, etc.

Which of the statements given above are correct ?

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

118. Which of the following concepts are considered as pillars of Human Development ?

1. Equity
2. Sustainability
3. Productivity
4. Security

Select the correct answer using the code given below :

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

119. Which one of the following pairs of events and years is *not* correctly matched ?

- (a) Launch of the first communications satellite : 1962
- (b) Completion of a continuous around the world fibre-optic cable link : 1997
- ☒ (c) Creation of the SWIFT system for worldwide electronic interbank fund transfer : 1977
- (d) Introduction of the World Wide Web (www) : 1995

120. Identify the type of soil on the basis of given characteristics :

1. They contain a large proportion of sodium, potassium and magnesium, and thus, they are infertile.
 2. Their structure ranges from sandy to loamy.
 3. They are more widespread in western Gujarat, deltas of the eastern coast and in Sunderban areas of West Bengal.
- (a) Peaty soil
 - (b) Laterite soil
 - (c) Arid soil
 - ☒ (d) Saline soil