

NDA 2023 (I) General Ability Test Question Paper

149 questions

This PDF is the question paper only. It does not contain the answer key or explanations.

Answers and explanations for every question are free on the website: <https://www.unlockias.in/nda-2023-i-general-ability-test>

Q1. Over long periods of time, layers of sediments builds up to a height of a few kilometers.

- (a) Over long periods of time,
- (b) layers of sediments builds up
- (c) to a height of a few kilometers.
- (d) No Error

Q2. When a gas is cooled down it turns into a liquid from a process called condensation.

- (a) When a gas is
- (b) cooled down it turns into a liquid
- (c) from a process called condensation.
- (d) No Error

Q3. If you want to know the news you can read a newspaper.

- (a) If you want
- (b) to know the news
- (c) you can read a newspaper.
- (d) No Error

Q4. Columbus made his first voyage from Europe to America on 1492.

- (a) Columbus made his
- (b) first voyage from Europe to America
- (c) on 1492.
- (d) No Error

Q5. Whenever the sky is clear, you can see the stars in the night.

- (a) Whenever the sky is
- (b) clear, you can see
- (c) the stars in the night.
- (d) No Error

Q6. I'm not working tomorrow, so I don't had to get up early.

- (a) I'm not working tomorrow,
- (b) so I don't had to
- (c) get up early.
- (d) No Error

Q7. She didn't tell anybody about her plans.

- (a) She didn't
- (b) tell anybody
- (c) about her plans.
- (d) No Error

Q8. She wouldn't have has an accident, if she had driven carefully.

- (a) She wouldn't have
- (b) has an accident,
- (c) if she had driven carefully.
- (d) No Error

Q9. I will watch film if I finish the work in time.

- (a) I will watch film
- (b) if I finish the work
- (c) in time.
- (d) No Error

Q10. In 1989, the government did an about-face and Iran restored it's family planning program.

- (a) In 1989, the government
- (b) did an about-face and Iran restored
- (c) it's family planning program.
- (d) No Error

Q11. During the pandemic the indigent people had to suffer a lot. (Choose the word nearest in meaning to the underlined word 'indigent'.)

- (a) very poor
- (b) opulent
- (c) solvent
- (d) prosperous

Q12. She had no idea what made him angry in one minute and jovial the next. (Choose the word nearest in meaning to the underlined word 'jovial'.)

- (a) aggrieved
- (b) melancholic
- (c) doleful
- (d) mirthful

Q13. It is sheer lunacy to drive a car in this frosty weather. (Choose the word nearest in meaning to the underlined word 'lunacy'.)

- (a) prudence
- (b) normalcy
- (c) insanity
- (d) sanity

Q14. Operating on a child with cancer needs meticulous planning and teamwork. (Choose the word nearest in meaning to the underlined word 'meticulous'.)

- (a) strong
- (b) long
- (c) playful
- (d) scrupulous

Q15. The thrill of over-speeding the vehicle can be exhilarating, but it is important not to take the consequences lightly. (Choose the word nearest in meaning to the underlined word 'exhilarating'.)

- (a) humdrum
- (b) dreary
- (c) exciting
- (d) agitating

Q16. The redemption will now depend on his new strategy of inclusiveness. (Choose the word nearest in meaning to the underlined word 'redemption'.)

- (a) retrieval
- (b) forfeiture
- (c) corporation
- (d) desecration

Q17. Only three candidates are now in contention for the title. (Choose the phrase nearest in meaning to the underlined words 'in contention'.)

- (a) involved in dispute
- (b) in agreement with each other
- (c) chance of winning
- (d) amiable to each other

Q18. Select the word nearest in meaning to the underlined word 'paraphernalia': All my fishing paraphernalia is in the car.

- (a) boxes
- (b) accessories
- (c) fuel
- (d) food

Q19. Select the word nearest in meaning to the underlined word 'astonishment': The public watched in astonishment as he took a sudden jump from the bridge.

- (a) anticipation
- (b) hurriedly
- (c) wonderment
- (d) calmness

Q20. Select the word nearest in meaning to the underlined word 'inordinate': Drinking inordinate amount of liquor is not good for health.

- (a) temperate
- (b) exorbitant
- (c) moderate
- (d) regular

Q21. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) because I feel**
- (Q) you remember it better**
- (R) when you write something,**
- (S) I make at least three drafts of a song**

- (a) SPRQ
- (b) RQPS
- (c) QRSP
- (d) PRSQ

Q22. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) for hours in the shop**
- (Q) a gunman who held**
- (R) a hostage**
- (S) demanded ransom of ₹ 10 lakh**

- (a) SPRQ
- (b) RQPS
- (c) QRPS
- (d) PRSQ

Q23. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) living in Russia**
- (Q) country immediately**
- (R) Ukraine has urged its citizens**
- (S) to leave the**

- (a) SPRQ
- (b) RPSQ
- (c) RSQP

(d) PRSQ

Q24. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) ripping roofs off houses and raising fears of**
- (Q) coast of Madagascar in the early hours,**
- (R) cyclone Emnati crashed into the southeastern**
- (S) flooding and food shortages in the region**

- (a) SPRQ
- (b) RPSQ
- (c) RQPS
- (d) PRSQ

Q25. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) ecology is protected and aquatic life thrives**
- (Q) we need to utilize the resources of water**
- (R) for different purposes while**
- (S) ensuring that its natural**

- (a) SPRQ
- (b) RQPS
- (c) QRSP
- (d) PRSQ

Q26. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) very difficult**
- (Q) the poor visibility**
- (R) made the movement of traffic**
- (S) due to fog**

- (a) SPRQ
- (b) RQPS
- (c) QRPS
- (d) QSRP

Q27. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) avenues for the patients to indict**
- (Q) but rarely is it the other way round**
- (R) there are multiple legal**
- (S) the doctors**

- (a) SPRQ
- (b) RPSQ
- (c) QRPS
- (d) QSRP

Q28. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) flight, and each person**
- (Q) her own journey**
- (R) life is a solo**
- (S) makes his or**

- (a) SPRQ
- (b) RPQS
- (c) RPSQ
- (d) PQRS

Q29. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) made it evolve**
- (Q) technologies and equipment has**
- (R) into a rare centre of excellence**
- (S) adoption of the latest**

- (a) PQRS
- (b) RPQS
- (c) SQPR
- (d) QSRP

Q30. Rearrange the segments P, Q, R and S to form a coherent sentence, then choose the correct order.

- (P) please mark the same**
- (Q) be made in response to this notice**
- (R) if you have any complaint to**
- (S) to the concerned authority**

- (a) PQRS
- (b) RPQS
- (c) SQPR
- (d) RQPS

Q31. Select the word most opposite in meaning to the underlined word 'fortify': The parental support can fortify a child's learning.

- (a) weaken
- (b) encourage
- (c) brace
- (d) strengthen

Q32. Select the word most opposite in meaning to the underlined word 'dazzling': Now we can have another dazzling thought, as an outcome of my brilliant research!

- (a) splendid
- (b) murky
- (c) dazing
- (d) fulgent

Q33. Select the word most opposite in meaning to the underlined word 'clandestine': The group held some clandestine meetings to resolve the matter.

- (a) secret
- (b) covert
- (c) sneaky
- (d) public

Q34. Select the word most opposite in meaning to the underlined word 'bleak': In the winters, the countryside view is bleak and the house is drafty.

- (a) cheerless
- (b) verdant
- (c) desolate
- (d) bare

Q35. Amid commotion the leader and his supporters remained passive.

- (a) quietude
- (b) uproar
- (c) tempest
- (d) stir

Q36. He had the audacity to blame him.

- (a) boldness
- (b) vigour
- (c) temerity
- (d) politeness

Q37. They are making plans for the abatement of the nuisance within a specified time.

- (a) subsidence
- (b) ebbing
- (c) accumulation
- (d) mitigation

Q38. There is exponential growth in the development of the scientific researches in the recent few decades.

- (a) aggressive
- (b) rampant
- (c) meager
- (d) augmented

Q39. He was known for his sagacity.

- (a) prudence
- (b) wisdom
- (c) ignorance
- (d) sapience

Q40. The river Ganges culminates in the Bay of Bengal.

- (a) concludes
- (b) flows
- (c) originates
- (d) merges

Q41. Idiom/Phrase: The lion's share

- (a) A portion of something
- (b) The largest and the best part of something
- (c) An important decision
- (d) An aggressive statement

Q42. Idiom/Phrase: Spill the beans

- (a) Reveal a secret
- (b) Forced to leave belongings
- (c) Share the news
- (d) Take offence at someone's rude behaviour

Q43. Idiom/Phrase: Cook someone's goose

- (a) To assist others
- (b) Hypnotize other's mind
- (c) To spoil other's plans
- (d) Inviting misfortune

Q44. Idiom/Phrase: Disappear into thin air

- (a) Lost forever
- (b) Become forgetful
- (c) Become uncaring
- (d) Disappear suddenly

Q45. Idiom/Phrase: Put the screws on

- (a) Forcing someone to do what you want
- (b) Never letting go of things
- (c) Keep the past alive
- (d) Using someone's trick for own benefit

Q46. Idiom/Phrase: Sit on the fence

- (a) Avoid meeting someone
- (b) Waiting patiently
- (c) Avoid taking sides
- (d) Hiding from someone

Q47. Idiom/Phrase: Be as sharp as a tack

- (a) A talkative person
- (b) A shrewd person
- (c) A clumsy person
- (d) A clever person

Q48. Idiom/Phrase: From pillar to post

- (a) Upside down
- (b) Keep moving from one place to another
- (c) Constructing a huge building
- (d) Jumping from the top of the mountain

Q49. Idiom/Phrase: Heath Robinson

- (a) Very complicated system or machine for doing a simple task
- (b) Treating everyone as enemy, when they are not
- (c) Sleeping all day, doing nothing
- (d) Very lazy person, slow in action

Q50. Idiom/Phrase: As thick as thieves

- (a) Dumb person
- (b) Good for nothing
- (c) Someone who uses everyone for personal gain
- (d) Very close friends who are looked upon with suspicion

Q51. Two identical spring balances S_1 and S_2 are connected one after the other and are held vertically as shown in the figure. A mass of 10 kg is hanging from S_2 . If the readings on S_1 and S_2 are W_1 and W_2 respectively, then :

- (a) $W_1 = 5 \text{ kg}$ and $W_2 = 10 \text{ kg}$
- (b) $W_1 = 10 \text{ kg}$ and $W_2 = 5 \text{ kg}$
- (c) $W_1 = 5 \text{ kg}$ and $W_2 = 5 \text{ kg}$
- (d) $W_1 = 10 \text{ kg}$ and $W_2 = 10 \text{ kg}$

Q52. A stone is thrown horizontally from the top of a 20 m high building with a speed of 12 m/s. It hits the ground at a distance R from the building. Taking $g = 10 \text{ m/s}^2$ and neglecting air resistance will give :

- (a) $R = 12 \text{ m}$
- (b) $R = 18 \text{ m}$
- (c) $R = 24 \text{ m}$
- (d) $R = 30 \text{ m}$

Q53. A sphere of volume V is made of a material with lower density than water. While on Earth, it floats on water with its volume f_1V ($f_1 < 1$) submerged. On the other hand, on a spaceship accelerating with acceleration $a < g$ (g is the acceleration due to gravity on Earth) in outer space, its submerged volume in water is f_2V . Then :

- (a) $f_2 = f_1$
- (b) $f_2 = (1 - a/g) f_1$

- (c) $f_2 > f_1$
- (d) $f_2 = (a/g) f_1$

Q54. Two identical containers X and Y are connected at the bottom by a thin tube of negligible volume. The tube has a valve in it, as shown in the figure. Initially container X has a liquid filled up to height h in it and container Y is empty. When the valve is opened, both containers have equal amount of liquid in equilibrium. If the initial (before the valve is opened) potential energy of the liquid is P_1 and the final potential energy is P_2 then :

- (a) $P_1 = P_2$
- (b) $P_1 = 4P_2$
- (c) $P_1 = 2P_2$
- (d) $P_1 = 8P_2$

Q55. A particle is moving in a circle of radius R with a constant speed v . Its average acceleration over the time when it moves over half the circle is :

- (a) v^2/R
- (b) $\pi v^2/2R$
- (c) $2v^2/\pi R$
- (d) 0

Q56. Two forces of 5.0 N each are acting on a point mass. If the angle between the forces is 60° , then the net force acting on the point mass has magnitude close to :

- (a) 8.6 N
- (b) 4.3 N
- (c) 5.0 N
- (d) 6.7 N

Q57. Which one of the following is not an igneous rock ?

- (a) Granite
- (b) Slate
- (c) Basalt
- (d) Gabbro

Q58. Which of the following statements is/are correct ?

1. Hypocenter is the point on the surface of the Earth, nearest to the focus.
2. Velocity of earthquake waves is higher in denser materials.
3. P waves move faster and are the first to arrive at the surface of the Earth.

Select the correct answer using the code given below :

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

Q59. In terms of geological time scale, the quaternary period consists of two epochs. They are :

- (a) Pleistocene and Pliocene
- (b) Holocene and Pleistocene
- (c) Pleistocene and Miocene
- (d) Holocene and Eocene

Q60. Which one of the following is the correct sequence of arrangement of the given planets in descending order of their density (in gm/cm^3) ?

- (a) Earth > Jupiter > Venus > Saturn
- (b) Jupiter > Earth > Saturn > Venus
- (c) Earth > Venus > Jupiter > Saturn
- (d) Earth > Venus > Saturn > Jupiter

Q61. Which one of the following is not a cold current ?

- (a) Western Australian Current
- (b) Eastern Australian Current
- (c) Benguela Current
- (d) Peru Current

Q62. The process of Podsolization is predominantly found in :

- (a) Equatorial forest
- (b) Monsoon forest
- (c) Taiga forest
- (d) Mediterranean forest

Q63. Joint Military exercise 'Keen Sword 23' was conducted between :

- (a) India and Japan
- (b) India and USA
- (c) USA and Japan
- (d) Japan and Taiwan

Q64. The Battle of Rezang La, an epic battle in hostile conditions, was fought by the Indian Army in :

- (a) 1948
- (b) 1956
- (c) 1962
- (d) 1972

Q65. Consider the following statements about 'Exercise Sea Vigil-22' :

1. Its aim is to assess India's preparedness in the domain of Maritime security and coastal defence.
2. Naval forces of USA and Japan also took part in the exercise.

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

Q66. Consider the following statements :

1. England is the only country that won the ICC T20 World Cup twice.
2. Virat Kohli is the only player to be adjudged as the Player of the Series in the ICC T20 World Cup twice.

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

Q67. Who among the following is not a recipient of Nobel Prize in Chemistry in 2022 ?

- (a) Carolyn R. Bertozzi
- (b) Benjamin List
- (c) Morten Meldal
- (d) K. Barry Sharpless

Q68. Consider the following statements regarding cell wall composition :

1. Bacterial cell wall is made of peptidoglycan.
 2. Fungal cell wall is made of cellulose.
 3. Animals lack cell wall and have extracellular matrix made up of sugar and proteins.
- Select the correct answer using the code given below :**

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

Q69. Which one of the following structures is not present in a prokaryotic cell ?

- (a) Cell wall
- (b) Ribosomes
- (c) Nucleus
- (d) Plasma membrane

Q70. In a plant cell, which one of the following contains their own DNA ?

- (a) Nucleus and Endoplasmic Reticulum
- (b) Ribosome and Golgi apparatus
- (c) Mitochondria and Chloroplast
- (d) Chloroplast and Vacuoles

Q71. One advantage of sexual reproduction over asexual reproduction is that it helps species to survive over long evolutionary time. This is because sexual reproduction produces :

- (a) more offspring in each reproductive cycle.
- (b) robust and healthy offspring.
- (c) genetically similar offspring.
- (d) more variation in offspring.

Q72. Which one of the following structures or components is not always present in living cells ?

- (a) Cell wall
- (b) Plasma membrane
- (c) Cytoplasm
- (d) Genetic material

Q73. Browning of the chopped apple can be minimized by :

- (a) using table sugar.
- (b) preserving in a container.
- (c) using lemon juice.
- (d) using milk of magnesia.

Q74. Which of the hydrocarbons are arranged as per the increasing order of their boiling points ?

- (a) Methane, Butane, Propane, Heptane
- (b) Propane, Butane, Pentane, Octane
- (c) Propane, Butane, Heptane, Methane
- (d) Octane, Ethane, Methane, Propane

Q75. Which one of the following apparatus is used for separating benzene and water mixture ?

- (a) Round bottom flask
- (b) Conical flask
- (c) Separating funnel
- (d) Dean and Stark apparatus

Q76. An iron nail dipped in copper sulphate solution turns brown. This is due to which one of the following types of reactions ?

- (a) Addition reaction
- (b) Decomposition reaction
- (c) Substitution reaction
- (d) Displacement reaction

Q77. Among the following, which is not the correct method for keeping the curd?

- (a) Keeping in stainless steel vessel
- (b) Keeping in copper vessel
- (c) Keeping in plastic vessel
- (d) Keeping in glass vessel

Q78. Toothpaste prevents tooth decay by:

- (a) neutralizing the excess acidity.
- (b) means of emulsification.
- (c) the action of fluoride.
- (d) making a coat of calcium over the teeth surface.

Q79. Freedom fighter Kanaklata Barua was martyred in:

- (a) Sepoy Mutiny
- (b) Quit India Movement
- (c) Non-Cooperation Movement
- (d) Peasant Uprising of 1893 – 1894

Q80. Which one among the following statements about the Mansabdari system is correct?

- (a) All army troopers were allotted mansabs.
- (b) Mansabs were usually assigned on the basis of ancestry.
- (c) Position and salary of mansabdars were indicated by a numerical designation called zat.
- (d) Mansabdars were never paid in cash.

Q81. Which Governor General of Bengal underwent impeachment proceedings in the British Parliament?

- (a) Robert Clive
- (b) Henry Vansittart
- (c) Warren Hastings
- (d) Lord Cornwallis

Q82. Who among the following composed the 'Prayag Prashasti' of Samudragupta?

- (a) Harishena
- (b) Chand Bardai
- (c) Vishakhadatta
- (d) Kalidasa

Q83. Which one of the following kingdoms was founded by the two brothers Harihar and Bukka?

- (a) Bahmani
- (b) Vijayanagara
- (c) Malwa
- (d) Maratha

Q84. At which one of the following places did the Danes establish their settlement in India?

- (a) Chinsura
- (b) Karaikal
- (c) Mahe
- (d) Tranquebar

Q85. A rectangle ABCD is kept in front of a concave mirror of focal length f with its corners A and B being, respectively, at distances $2f$ and $3f$ from the mirror with AB along the principal axis as shown in the figure. It forms an image A'B'C'D' in front of the mirror. What is the ratio of B'C' to A'D'?

- (a) 1
- (b) 2
- (c) $1/2$
- (d) $2/3$

Q86. Shown in the figure are two plane mirrors XY and YZ (XY YZ) joined at their edge. Also shown is a light ray falling on one of the mirrors and reflected back parallel to its original path as a result of this arrangement. The two mirrors are now rotated by an angle θ to their new position X'YZ', as shown. As a result the new reflected ray is at an angle α from the original reflected ray. Then:

- (a) $\alpha = 0$
- (b) $\alpha = \theta$
- (c) $\alpha = 2\theta$

(d) $\alpha = 4\theta$

Q87. A railway wagon (open at the top) of mass M_1 is moving with speed v_1 along a straight track. As a result of rain, after some time it gets partially filled with water so that the mass of the wagon becomes M_2 and speed becomes v_2 . Taking the rain to be falling vertically and water stationary inside the wagon, the relation between the two speeds v_1 and v_2 is:

- (a) $v_1 = v_2$
- (b) $\frac{1}{2} M_1 v_1^2 < \frac{1}{2} M_2 v_2^2$
- (c) $M_1 v_1 = M_2 v_2$
- (d) $M_1 v_1 < M_2 v_2$

Q88. Which one of the following statements is not true for a flute, a musical instrument?

- (a) Momentum of waves on the blowing jet determines the loudness of the produced note.
- (b) Arrival time of the waves on the blowing jet determines the pitch of the produced note.
- (c) Sound comes from a vibrating column of air inside the flute.
- (d) Sound comes from a vibrating column of air inside as well as outside the flute.

Q89. A positive charge is moving towards south in a space where magnetic field is pointing in the north direction. The moving charge will experience:

- (a) a deflecting force towards north direction.
- (b) a deflecting force towards east direction.
- (c) a deflecting force towards west direction.
- (d) no deflecting force.

Q90. Which one of the following is not a main greenhouse gas ?

- (a) Water vapour
- (b) Oxygen
- (c) Carbon dioxide
- (d) Methane

Q91. Which one of the following statements about X-rays is not true ?

- (a) They have wavelengths of about $1 \text{ \AA}$.
- (b) These can be generated by bombarding a metal target by high energy electrons.
- (c) Due to their wavelengths being shorter, these can be used for radar systems.
- (d) These are also used for the treatment of certain forms of cancer.

Q92. Which one among the following is the northernmost geographical location ?

- (a) New Delhi
- (b) Kathmandu
- (c) Thimphu
- (d) Dhaka

Q93. Consider the following statements :

1. Distance between the longitudes becomes zero on North Pole and South Pole.
2. Distance between the longitudes is maximum on the Equator.
3. Number of longitudes is more than number of latitudes.

Which of the statements given above is/are correct ?

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

Q94. Which one among the following states is the leading producer of Manganese in India ?

- (a) Madhya Pradesh
- (b) Jharkhand
- (c) Rajasthan
- (d) Karnataka

Q95. Mica is mainly used in :

- (a) food and beverage industry.
- (b) iron and steel industry.
- (c) aluminium industry.
- (d) electrical and electronic industries.

Q96. According to Koppen's climatic classifications, the Great Northern Plains of India have which one of the following climates ?

- (a) Aw climate
- (b) Cwg climate
- (c) Amw climate
- (d) Dfc climate

Q97. Which of the following statements about Lachit Borphukan is/are correct ?

1. He was a General of the Ahom Force.
2. He is known for his leadership in the Battle of Saraighat.
3. Lachit Borphukan Gold Medal is given to the best cadet at the National Defence Academy.

Select the correct answer using the code given below :

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

Q98. The 4th edition of joint military exercise 'DUSTLIK' between the Indian Army and the Uzbekistan Army was held in :

- (a) Ranikhet
- (b) Gangtok
- (c) Pithoragarh
- (d) Leh

Q99. Which of the following is India's first privately developed rocket launched by ISRO recently ?

- (a) Skyroot
- (b) Prarambh
- (c) Bazoomq
- (d) Vikram-S

Q100. Which one among the following villages was recently declared as India's first 24 × 7 solar-powered village ?

- (a) Mawlynnong, Meghalaya
- (b) Modhera, Gujarat
- (c) Ziro village, Arunachal Pradesh
- (d) Malana, Himachal Pradesh

Q101. Tableaux of which one of the following States was adjudged the best in the Republic Day Parade, 2023?

- (a) Uttarakhand
- (b) Punjab
- (c) Gujarat
- (d) Uttar Pradesh

Q102. Organisms capable of using CO₂ as principal carbon source are called :

- (a) Autotrophs
- (b) Heterotrophs
- (c) Parasites
- (d) Decomposers

Q103. When yeast cells are O₂ starved, fermentation serves as the source of energy. This results in the production of :

- (a) ATP + CO₂ + Ethanol
- (b) ATP + O₂ + Pyruvate
- (c) ATP + CO₂ + Lactic acid
- (d) ATP + O₂ + Acetaldehyde

Q104. During a laboratory experiment, a student immerses epidermal leaf peel in a hypertonic solution. After some time, the student examined the cells under a microscope and observed that :

- (a) the cells swelled.
- (b) the cells were plasmolysed.
- (c) the cells built up turgor pressure.
- (d) the cells size was unaffected.

Q105. Which one of the following is not a characteristic feature of fungi?

- (a) Cell wall is made of chitin
- (b) Filamentous mycelium is present
- (c) Can carry out photosynthesis
- (d) Asexual spores are produced

Q106. Which one of the following statements about bryophytes is not correct?

- (a) The plant body is a gametophyte.
- (b) They are also called the amphibians of plant kingdom.
- (c) The plant body is attached to the substratum by rhizoids.
- (d) Specialized water-conducting tissues are present.

Q107. What is the specific purpose of using potassium hydroxide during the saponification process?

- (a) To obtain soaps which are hard on the skin
- (b) To obtain soaps which are soft on the skin
- (c) To obtain natural fragrance
- (d) To make the saponification very economical

Q108. Which one of the following is the correct arrangement of metals in the decreasing order of their reactivity?

- (a) Iron, Sodium, Silver, Copper
- (b) Silver, Copper, Iron, Sodium
- (c) Sodium, Copper, Silver, Iron
- (d) Sodium, Iron, Copper, Silver

Q109. Which among the following statements is not correct with respect to allotropes of Carbon?

- (a) Graphite is a good conductor of electricity.
- (b) Diamond is the hardest substance known.
- (c) Fullerene is one of the allotropes of carbon.
- (d) Next to diamond, graphite is the second hardest known substance.

Q110. Which among the following is the popular method for manufacture of ammonia?

- (a) Ostwald's process
- (b) Haber-Bosch process
- (c) Electric furnace process
- (d) Electrolysis process

Q111. For manufacturing of glass, which among the following is used as a source of silica?

- (a) Fine clay soil
- (b) Wood powder
- (c) Coconut shell
- (d) Sand

Q112. Which among the following is the correct arrangement of halogens in the increasing order of their oxidizing nature?

- (a) F, Cl, Br, I
- (b) Cl, Br, F, I
- (c) Br, I, Cl, F
- (d) I, Br, Cl, F

Q113. Copper sulphate crystals available in the market are blue coloured crystals. By careful heating, they turn to white colour. Which one of the following is responsible for the blue colour?

- (a) Oxygen
- (b) Nitrogen
- (c) Water
- (d) Hydrogen

Q114. Equal volume of all gases, when measured at the same temperature and pressure, contain an equal number of particles. Who proposed the above law?

- (a) Charles
- (b) Boyle
- (c) Avogadro
- (d) Lussac

Q115. Airbags work on the principle of a chemical reaction triggered by the impact producing a gaseous product that causes a sudden volume change. Which one among the following chemical conversions is responsible for this?

- (a) Sodium azide into nitrogen gas
- (b) Solid carbon dioxide into gaseous carbon dioxide
- (c) Carbon dioxide into carbon monoxide
- (d) Sudden conversion of gaseous carbon dioxide into carbon monoxide

Q116. Which one among the following districts of Eastern India held a referendum in 1947 to decide whether or not to join Pakistan?

- (a) Sylhet
- (b) Goalpara
- (c) Cachar
- (d) Jalpaiguri

Q117. Which one of the following statements about Rabatak inscription is not correct?

- (a) It throws important light on Kushana genealogy.
- (b) It refers to Kanishka as 'a king of kings and a son of God'.
- (c) The 23-line inscription is written in Gandhari language.
- (d) It mentions names of States which were part of Kanishka's empire.

Q118. Who among the following was the author of the famous Sanskrit work 'Mrichchhakatika'?

- (a) Kalidasa
- (b) Bhasa
- (c) Valmiki
- (d) Shudraka

Q119. Yashovarman was ruler of which one of the following kingdoms?

- (a) Kannauj
- (b) Mewar
- (c) Marwar
- (d) Kalinga

Q120. Which one among the following rulers established Pataliputra as the capital of the Magadhan Empire?

- (a) Bimbisara
- (b) Bindusara
- (c) Ajatashatru
- (d) Ashoka

Q121. Which one of the following astronomers proved that the Earth and other planets revolve around the Sun?

- (a) Copernicus
- (b) Kepler
- (c) Galileo
- (d) Newton

Q122. Sand falls vertically on a conveyor belt at a rate of 0.1 kg/s. In order to keep the belt moving at a uniform speed of 2 m/s, the force required to be applied on the belt is :

- (a) 0 N
- (b) 0.2 N
- (c) 1.0 N
- (d) 2.0 N

Q123. The power required to lift a mass of 8.0 kg up a vertical distance of 4 m in 2 s is (taking acceleration due to gravity as 10 m/s²) :

- (a) 80 W
- (b) 160 W
- (c) 320 W
- (d) 640 W

Q124. One block of 2.0 kg mass is placed on top of another block of 3.0 kg mass. The coefficient of static friction between the two blocks is 0.2. The bottom block is pulled with a horizontal force F such that both the blocks move together without slipping. Taking acceleration due to gravity as 10 m/s², the maximum value of the frictional force is :

- (a) 50 N
- (b) 30 N
- (c) 4 N
- (d) 10 N

Q125. A mass is attached to a spring that hangs vertically. The extension produced in the spring is 6 cm on Earth. The acceleration due to gravity on the surface of the Moon is one-sixth of its value on the surface of the Earth. The extension of the spring on the Moon would be :

- (a) 6 cm
- (b) 1 cm
- (c) 0 cm
- (d) 36 cm

Q126. Which one of the following is an example of Second Class Lever?

- (a) A pair of scissors
- (b) A bottle opener
- (c) A cricket bat
- (d) A bow and arrow

Q127. In an electric circuit, a wire of resistance 10 ohm is used. If this wire is stretched to a length double of its original value, the current in the circuit would become :

- (a) half of its original value.
- (b) double of its original value.
- (c) one-fourth of its original value.
- (d) four times of its original value.

Q129. Which of the following scheme(s) is/are included under Bharatmala Pariyojana? 1. Develop the road connectivity to border areas 2. Development of coastal roads 3. Improvement in the efficiency of National Corridors Select the correct answer using the code given below :

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

Q130. Deendayal Port was earlier known as :

- (a) Paradip Port
- (b) Tuticorin Port
- (c) Kandla Port
- (d) Visakhapatnam Port

Q131. The Counter Insurgency and Jungle Warfare School of Indian Army is situated at :

- (a) Dehradun
- (b) Vairengte
- (c) Gulmarg
- (d) Mhow

Q132. In the soil-forming regime, which one of the following occurs in a region where evapotranspiration exceeds precipitation significantly?

- (a) Calcification
- (b) Laterization
- (c) Podsolization
- (d) Gleization

Q133. Which one of the following is found in the innermost part of the Earth?

- (a) Conrad discontinuity
- (b) Moho discontinuity
- (c) Guttenberg discontinuity
- (d) Lehmann discontinuity

Q134. Which of the following tree species is/are found on Himalayas? 1. Oak 2. Rhododendron 3. Rosewood Select the correct answer using the code given below :

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

Q135. Which one of the following is the lowermost/innermost intrusive igneous rock?

- (a) Laccolith
- (b) Batholith
- (c) Lopolith
- (d) Phacolith

Q136. If it is 12 noon in New Delhi, what will be the time in London, UK?

- (a) 6:30 A.M.
- (b) 6:30 P.M.
- (c) 5:30 A.M.
- (d) 5:30 P.M.

Q137. Which of the following positions of Sun, Earth and Moon is/are suitable for Spring Tide? 1. SYZYGy Conjunction 2. SYZYGy Opposition 3. Quadrature Select the correct answer using the code given below :

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

(d) 1 and 3

Q138. Which Renaissance artist painted 'The Last Supper'?

- (a) Michelangelo
- (b) Donatello
- (c) Botticelli
- (d) Leonardo da Vinci

Q139. Which one of the following European explorer conquered Mexico?

- (a) Vasco da Gama
- (b) Bartholomew Diaz
- (c) Magellan
- (d) Hernan Cortes

Q140. Near which one of the following cities in India have large statues of Kushana rulers been discovered?

- (a) Karnal
- (b) Ropar
- (c) Hisar
- (d) Mathura

Q141. The Treaty of Yandabo was concluded as part of which one of the following wars?

- (a) First Anglo-Burmese War
- (b) Second Anglo-Burmese War
- (c) Anglo-Kuki War
- (d) Anglo-Maratha War

Q142. Plan allocation in agriculture and irrigation as percentage of total plan outlay was highest in :

- (a) Seventh Five-Year Plan
- (b) Third Five-Year Plan
- (c) First Five-Year Plan
- (d) Second Five-Year Plan

Q143. The UN COP-27 Summit relates to :

- (a) Russia-Ukraine war
- (b) Terrorism and counter-terrorism
- (c) Climate change
- (d) Interpol

Q144. Which one of the following tribes from India's North-East had the earliest known association with cultivation and production of tea?

- (a) Khasis
- (b) Garos
- (c) Singphos
- (d) Jaintias

Q145. By which one of the following amendments, was Article 51A, relating to the Fundamental Duties, inserted into the Constitution of India?

- (a) The Constitution (42nd Amendment) Act
- (b) The Constitution (44th Amendment) Act
- (c) The Constitution (85th Amendment) Act
- (d) The Constitution (92nd Amendment) Act

Q146. Which one of the following statements is true?

- (a) The force of gravity of the Earth on the Moon is greater than the force of gravity of the Moon on the Earth.
- (b) The force of gravity of the Moon on the Earth is greater than the force of gravity of the Earth on the Moon.
- (c) The force of gravity of the Earth on the Moon and of the Moon on the Earth are equal in magnitude and are in the same direction.

(d) The force of gravity of the Earth on the Moon and of the Moon on the Earth are equal in magnitude but are in opposite directions.

Q147. An electric bulb is rated as 220 V and 80 W. When it is operated on 110 V, the power rating would be :

- (a) 80 W
- (b) 60 W
- (c) 40 W
- (d) 20 W

Q148. In the dispersion of white light by a common glass prism, which one among the following is correct?

- (a) Red light deviates the most because red light has highest speed in prism
- (b) Blue light deviates the most because blue light has highest speed in prism
- (c) Red light deviates the most because red light has lowest speed in prism
- (d) Blue light deviates the most because blue light has lowest speed in prism

Q149. Which one among the following is true for the speed of sound in a given medium?

- (a) Speed of sound remains same at all frequencies
- (b) Speed of sound is faster at higher frequencies
- (c) Speed of sound is slower at higher frequencies
- (d) Speed of sound is slower at higher wavelengths

Q150. Which one of the following telescopes contains only mirrors?

- (a) Galilean telescope
- (b) Keplerian telescope
- (c) Newtonian telescope
- (d) Schmidt telescope