

LSGS Mains Paper I Study Material Set 3

Q1.'മനസ്സാക്ഷി' എന്ന പദം പിരിച്ചെഴുതിയാൽ :

- (a)മനഃ + സാക്ഷി
- (b)മന + സാക്ഷി
- (c)മനസ്സ് + സാക്ഷി
- (d)മനം + സാക്ഷി

Ans(a)
Sol.
. അന്വർഥം - അനു + അർഥം

. അത്യാഗ്രഹം - അതി + ആഗ്രഹം

. കരിമ്പുലി - കരി + പുലി

Q2.താഴെ പറയുന്നവയിൽ തെറ്റായ പദമേത് ?

- (a)യദൃച്ഛയാ
- (b)ലജ്ജ
- (c)പ്രവൃത്തി
- (d)ഹാർദ്ദവം

Ans(d)
Sol.
ഹാർദ്ദം എന്നതാണ് ശരി.

Q3."One day the king heard about him"

ശരിയായ തർജ്ജമ ഏത് ?

- (a)ഒരു ദിവസം രാജാവ് അയാൾ പറയുന്നത് കേട്ടു
- (b)ഒരു ദിവസം അയാൾ രാജാവ് പറയുന്നത് കേട്ടു

(c)അയാൾ പറയുന്നത് രാജാവ് കേട്ടു കൊണ്ടിരുന്നു
(d)ഒരു ദിവസം രാജാവ് അയാളെപ്പറ്റി കേട്ടു

Ans(d)
Sol.
. ഒരു ദിവസം രാജാവ് അയാൾ പറയുന്നത് കേട്ടു - One day the king heard him say that.

. ഒരു ദിവസം അയാൾ രാജാവ് പറയുന്നത് കേട്ടു - One day he heard the king say.

. അയാൾ പറയുന്നത് രാജാവ് കേട്ടു കൊണ്ടിരുന്നു - The king was listening to him.

. ഒരു ദിവസം രാജാവ് അയാളെപ്പറ്റി a - One day the king heard about him.

Q4.ഒറ്റപ്പദമെഴുതുക : 'വേദജ്ഞാനമുള്ളവൻ'

- (a)വൈദീകൻ
- (b)വൈദികൻ
- (c)വൈദിക
- (d)വൈദ്യകൻ

Ans(b)
Sol.
. തന്നത്താൻ പറയുന്നത് -സ്വഗതം

. ദ്വീപിൽ ജനിച്ചവൻ - ദ്വൈപായനൻ

. ദർശനത്തിൽ താൽപര്യമുള്ളവൻ - സുദർശനൻ

Q5.സ്ത്രീലിംഗ ശബ്ദമേത്? -കാമികൻ

- (a)കാമകി
- (b)കാമി
- (c)കാമിക
- (d)കാമിനി

Ans(c)

Sol.
കാമിക എന്നതാണ് ശരി

Q6.അകമടങ്ങുക - എന്ന ശൈലിയുടെ

ശരിയായ അർത്ഥം ?

- (a)ആദ്യപാഠം
- (b)മഹത്വം വർദ്ധിപ്പിക്കുക
- (c)സ്വയമൊതുങ്ങിക്കൂടുക
- (d)തയ്യാറാക്കുക

Ans(c)

Sol.
. അംഗുലീപരിമിതം -
വിരലിലെണ്ണാവുന്നത്

. അച്ചാലും ഇച്ചാലും - പലതരത്തിൽ

. അക്കിടി പറ്റുക - അപകടത്തിൽ

പെടുക

Q7.പര്യായപദമല്ലാത്തതേത് ?

കർക്കടകം

- (a)ശുചി
- (b)ആടി
- (c)ആഷാഢം
- (d)മാകന്ദം

Ans(d)

Sol.
. കർക്കടകം - ശുചി, ആടി, ആഷാഢം,
ആഷാഢംകം

. തേന്മാവ് - രസാലം, ചൂതം, മാകന്ദം

. തേൻ - മധു, മകരന്ദം

. ജലം - സലിലം, വാരി, തോയം

Q8.ശരിയായ വാക്യമേത് ?

- (a)ചില തലവേദന മാറാനുള്ള മരുന്നുകൾ ഉദ്ദേശിച്ച ഫലം തരുന്നില്ല
- (b)തലവേദന മാറാനുള്ള ചില മരുന്നുകൾ ഉദ്ദേശിച്ച ഫലം തരുന്നില്ല
- (c)ചില മരുന്നുകൾ തലവേദന മാറാനുള്ള ഉദ്ദേശിച്ച ഫലം തരുന്നില്ല
- (d)ചില മരുന്നുകൾ ഉദ്ദേശിച്ച തലവേദന മാറാനുള്ള ഫലം തരുന്നില്ല

Ans(b)

Sol.
. ' ചില തലവേദന മാറാനുള്ള മരുന്നുകൾ ഉദ്ദേശിച്ച ഫലം തരുന്നില്ല ' ഇതിൽ 'ചില തലവേദന' എന്നപ്രയോഗം തെറ്റാണ്.

. 'ചില മരുന്നുകൾ തലവേദന മാറാനുള്ള ഉദ്ദേശിച്ച ഫലം തരുന്നില്ല' ഇതിൽ 'മാറാനുള്ള ഉദ്ദേശിച്ച' എന്നപ്രയോഗം തെറ്റാണ്.

. 'ചില മരുന്നുകൾ ഉദ്ദേശിച്ച തലവേദന മാറാനുള്ള ഫലം തരുന്നില്ല' ഇതിൽ 'ഉദ്ദേശിച്ച തലവേദന' എന്ന പ്രയോഗം തെറ്റാണ്.

Q9.ചുവടെ തന്നിരിക്കുന്നവയിൽ ബന്ധപ്പെട്ട പദങ്ങളുടെ ശരിയായ അർത്ഥം കണ്ടെത്തുക :

i. നണ്ണുക - വിചാരിക്കുക

ii. പാരാതെ - വേഗത്തിൽ

iii. പാരം - ചെറുത്

- (a)i, ii
- (b)iii മാത്രം
- (c)i, iii
- (d)ii, iii

Ans(a)

Sol.
. പാരം - വളരെ

. തിണ്ണം - നന്നായി

. ധേനു - കറവപ്പശു

- . കൊലുന്ന - ചെയ്യുന്ന
- . നിദാനം - കാരണം
- . നിനാദം - ശബ്ദം

Q10. 'സ്വായത്തമായിട്ടുള്ളത്' എന്നർത്ഥം വരുന്ന പദം ഏത് ?

- (a) അസന്ദിഗ്ദ്ധം
- (b) സന്നിധി
- (c) നിരൂപം
- (d) വിരതം

Ans(a)
Sol.

- . പാരം - വളരെ
- . തിണ്ണം - നന്നായി
- . ധേനു - കറവപ്പശു
- . കൊലുന്ന - ചെയ്യുന്ന
- . നിദാനം - കാരണം
- . നിനാദം - ശബ്ദം

Q11. Latent heat is -----

- (a) Heat transfer responsible for change in temperature
- (b) Heat transfer responsible for phase change at constant temperature
- (c) Conductive heat transfer in addition to sensible heat
- (d) None of these

Ans(b)
Sol.

- latent heat, energy absorbed or released by a substance during a change in its physical state (phase) that occurs without changing its temperature.
- Sensible heat is the heat transfer responsible for temperature change.
- Latent heat is the heat transfer responsible for phase change at constant temperature.

Q12. What is correct in the statement given below regarding the Pazhassi Revolution?

1. The Pazhassi revolutions against British rule took place in two phases.
 2. The first Pazhassi Revolution took place from 1793 to 1797 and the second Pazhassi Revolution took place from 1800 to 1805.
 3. The First Pazhassi Revolution came to an end with the intervention of Jonathan Duncan, the governor of Bombay.
- (a) 2,3
 - (b) 1,3
 - (c) 1,2
 - (d) 1,2,3

Ans(d)
Sol.

1. The Pazhassi revolutions against British rule took place in two phases.
2. The first Pazhassi Revolution took place from 1793 to 1797 and the second Pazhassi Revolution took place from 1800 to 1805.
3. The First Pazhassi Revolution came to an end with the intervention of Jonathan Duncan, the governor of Bombay

All 3 are correct.

Q13. Which of the following modes of heat transfer has a cyclic nature?

- (a) Conduction
- (b) Convection
- (c) Radiation
- (d) None of the above

Ans(b)
Sol.

- Convection happens when a fluid such as air or water is in motion. Convection is driven by temperature differences across that fluid.
- When a fluid is heated, the region in closest contact with the heat source becomes less dense due to increased kinetic energy in the particles.
- The portion of fluid that is less dense then rises, while the denser portion of fluid sinks.

• The process repeats itself because the less dense fluids cool down as they move away from their heat source, making them sink, while the denser fluids heat up as they near the heat source, making them rise.

• This creates convection currents.

Q14. In which year did the famous Kaiyur agitation take place?

- (a) 1931
- (b) 1941
- (c) 1932
- (d) 1942

Ans(b)

Sol.

• The Kaiyur agitation was a CPI - led agitation against feudalism and British imperialism in the village of Kaiyur in Kasaragod district.

• Subramaniam, a police constable, was unexpectedly killed and the protest took on a new dimension. Four activists were hanged on March 29, 1943.

• The Kayyur struggle is considered to have been a scientifically organized struggle against the oppression of colonialism and imperialism.

Q15. Formulate the historical events mentioned below in the order in which they took place.

1. Channar Riot
 2. Anchuthengu Riot
 3. The Attingal Riot
 4. Kurichiya Riot
- (a) 2,3,4,1
 - (b) 1,2,3,4
 - (c) 1,4,2,3
 - (d) 2,3,1,4

Ans(a)

Sol.

• 1697: Anchuthengu Riot

• 1721: Attingal Riot

• 1812: Kurichya Riot

• 1859: Channar Riot

Q16. Which statement is false regarding directive principles ?

(a) directive principles are guidelines and positions to be taken by states in law making and policy making.

(b) directive principles are justiciable

(c) Welfare state formation is implemented through directive principles

(d) directive principles are considered when making legal interpretations

Ans(b)

Sol.

• directive principles refer to the grand ideals, means and ends to be pursued by the country in making and implementing laws. The objectives of the directive principles are to make India a welfare state.

• India borrowed the concept of directive principles from: Ireland

• Gandhian ideas are enshrined in the Directive Principles of the Constitution of India.

• Section 37 provides that directive principles are not open to argument

• The Directive Principles are enshrined in the Constitution of India: Part IV (Articles 36 - 51.)

Q17. Read the following statements and choose the correct answer.

1. Article 129 is the constitutional provision that makes the Supreme Court as the Court of Record.

2. This includes recording the judgments and proceedings of the High Courts for lasting remembrance.

3. Those who question it should not be punished.

(a) 1,2

(b) 1,3

(c) 2,3

(d) None

Ans(a)

Sol.

- The third statement is incorrect because those who question it can be punished.

- Article 129 of the Indian Constitution empowers the Supreme Court to be a court of record. In other words, the Supreme Court shall be a court of record and shall have all the powers of such a court, including the power to punish for contempt of itself.

- Section referring to the Supreme Court 124

- Year the Supreme Court came into

force - January 26, 1950

Q18.The budget goes through six stages in the Parliament. Arrange the following in the correct order of proceeding in Parliament.

1. Presentation of budget.
2. Scrutiny by departmental committees.
3. General discussion.
4. Passing of finance bill.
5. Passing of appropriation bill.
6. Voting on demands for grants.

Select the correct order using the codes below.

- (a)654321
- (b)165234
- (c)123456
- (d)132654

Ans(d)

Sol.

Correct order is:

1. Presentation of budget.
2. General discussion.
3. Scrutiny by departmental committees.
4. Voting on demands for grants.
5. Passing of appropriation bill.

6. Passing of finance bill

Q19.Consider the Following statements about CAG:

1. He is the head of the Indian audit & account department and chief Guardian of Public purse.
2. In India, CAG is not a member of the parliament while in Britain; CAG is a member of the House of the Commons.
3. CAG is appointed by the President by warrant under his hand and seal and provided with tenure of 6 years or 65 years of age, whichever is earlier.

Select the correct statements ?

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

Ans(d)

Sol.

- CAG is an independent authority under the Constitution of India.

- He is the head of the Indian audit & account department and chief Guardian of Public purse.Statement 1 is correct.

- In India, CAG is not a member of the parliament while in Britain; CAG is a member of the House of the Commons. Statement 2 is correct.

- There are several provisions in the Constitution for safeguarding the independence of CAG.

- CAG is appointed by the President by warrant under his hand and seal and provided with tenure of 6 years or 65 years of age, whichever is earlier.Statement 3 is correct.

Q20.Which of the following statements about the Deccan Plateau is correct?

1. Krishna is the largest river in the Deccan Plateau.
2. Slope of Deccan Plateau - East to West.

3. The Deccan Trap is a region in the north-western part of the Deccan Plateau where large volcanic eruptions occur.

4. Queen of the Deccan - Pune

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

Ans(c)

Sol.

• Plateau within the Western Ghats, Eastern Ghats and Satpura.

- The largest plateau in India.
- The largest lava plateau in the world.
- Triangular in shape.
- The largest plateau in the world - Tibetan Plateau
- The Deccan Trap is a region in the north-western part of the Deccan Plateau where large volcanic eruptions occur.
- Rivers flowing through the Deccan Plateau - Godavari, Krishna, Kaveri and Mahanadi
- The Godavari is the largest river in the Deccan Plateau.
- Slope of Deccan Plateau - West to East
- Queen of the Deccan - Pune

Q21. Which of the following statements are correct?

1. Mahatma Gandhi described Rajaram Mohan Roy as the father of the Indian Renaissance.

2. Monier Williams describes Rajaram Mohan Roy as the first researcher to compare religions for study purposes.

3. Raja Ram Mohan Roy is described as the apostle for the revival of Indian religion by Jawaharlal Nehru.

- (a)3 only
- (b)2 only
- (c)1 only
- (d)None

Ans(b)

Sol.

• Raja Ram Mohan Roy was born on 22 May 1772 in an orthodox Brahman family at Radhanagar in Bengal.

• Ram Mohan Roy's early education included the study of Persian and Arabic at Patna where he read the Quran, the works of Sufi mystic poets and the Arabic translation of the works of Plato and Aristotle. In Benaras, he studied Sanskrit and read Vedas and Upanishads.

• Returning to his village, at the age of sixteen, he wrote a rational critique of Hindu idol worship.

• From 1803 to 1814, he worked for East India Company as the personal diwan first of Woodforde and then of Digby.

• In 1814, he resigned from his job and moved to Calcutta in order to devote his life to religious, social and political reforms.

Q22. Choose the correct statements related to the Chinese Revolution.

1. The People's Republic of China came into existence on October 1, 1949.

2. The Red Army was formed under the leadership of Mao Tse Tung.

3. The Communist Party of China was formed in 1931.

- (a)1,2
- (b)2,3
- (c)1,3
- (d)None

Ans(a)

Sol.

• The third statement is false because the Communist Party was formed in China in 1921.

• The communist revolution in China took place in 1949.

• Mao Zedong is the main leader of the Chinese Communist Party.

- Mao Zedong was the leader who organized the Long March against the Chinese dictator Chiang Kai-shek.

Q23. Which is the correct pair?

1. Treaty of Nanking - 1842
 2. The Long March - 1934
 3. People's Republic of China - 1949
- (a) 3 only
(b) 1, 2
(c) 2 only
(d) 1, 2, 3

Ans(d)

Sol.

- The Treaty of Nanking in 1842 ended the First Black War.

- The year the People's Republic of China came into existence - October 1, 1949.

- The year the Communist Party was formed in China - 1921.

- Mao Zedong was the leader who organized the Long March in 1934 against the Chinese dictator Chiang Kai-shek.

- The First Black War, which took place from 1839 to 1842, was between China's Qing dynasty and Britain.

Q24. Select only the correct one among the administrative reforms undertaken during the period of Marthandavarma.

1. Common peasants were not recruited into the standing army formed by Marthandavarma.
 2. A tax rebate was given in the name of 'Irayily Aduthoon'
 3. Travancore was divided into a total of 20 Mandapathumvatukals and organized into different Mukhas (parts).
- (a) 1, 2
(b) 3 only
(c) 1, 3
(d) 2 only

Ans(b)

Sol.

- The first statement is wrong because the army was recruited from among the common peasants.

- The second statement is wrong, because 'Irayili Aduthoon' was the pension given on retirement from the army.

- Those selected for the army were given a tax exemption called 'Irayili' for the duration of their service.

- The help of the Dutch soldier Delanoy was also received for training the Travancore army.

- Tripadidanam: On 3 January 1750, one of Marthandavarma's major deeds was the dedication of the kingdom of Travancore to the family deity Sripadmanabhan.

Q25. Reserpine, Quinine, Nicotine and Piperine are examples of the following classes of alkaloids?

- (a) Indole, Quinoline, Pyridine and Piperidine
(b) Quinoline, Piperidine, Pyridine, Indole
(c) Indole, Quinoline, Pyridine, Isoquinoline
(d) Quinoline, Piperidine, Indole, Pyridine

Ans(a)

Sol.

- Reserpine is an indole alkaloid obtained from *Rauwolfia serpentina*.

- It is used as an antipsychotic and antihypertensive agent for the control of high blood pressure and for the relief of psychotic symptoms respectively.

- Quinoline alkaloids such as quinine, quinidine, cinchonine, and cinchonidine were the first drugs developed to treat malaria and come from *Cinchona officinalis* and related *Cinchona* species (Rubiaceae) which naturally occur in Central and South America.

Q26. 'Mag Bihu' harvest festival is celebrated in which state?

- (a) Kerala
(b) Assam
(c) Bihar
(d) Punjab

Ans(b)

Sol.

• Assam is the state where 'Magh Bihu' harvest festival takes place.

• It is also known as Bhogali Bihu.

• It is an important harvest festival celebrated in Assam

Q27. Who won the 71st Miss Universe Beauty Pageant, in New Orleans, USA?

- (a) Tony Ann Singh
- (b) Amanda Dudamel
- (c) Harnas Sandhu
- (d) Arbani Gabriel

Ans(d)

Sol.

• Miss Universe 2022 is R Bonnie Gabriel from Miss USA.

• In the 71st edition of the pageant, Amanda Dudamel of Venezuela was the first runner-up, followed by Andrea Martinez of the Dominican Republic.

• Miss Universe 2021 Harnaz Sandhu has been crowned the winner of the 70th Miss Universe pageant.

Q28. Which district is the first to achieve complete constitutional literacy in the country?

- (a) Kozhikode
- (b) Kasargod
- (c) Kollam
- (d) Kannur

Ans(c)

Sol.

• Kollam became the country's first fully constitutionally literate district.

• Chief Minister Pinarayi Vijayan made the official announcement at a function held at the Kesavan Memorial Town Hall.

• The target was to complete the campaign on August 15. But the classes were not completed in many places and it was delayed by another five months.

• Panchayat Kulathupuzha and Block Panchayat Chavara were the first to achieve complete constitutional literacy.

Q29. Who attended India's Republic Day function on 26 January 2023 as the Chief Guest?

- (a) Boris Johnson
- (b) Nicolas Sarkozy
- (c) Jair Bolsonaro
- (d) Abdel Fattah El-Sisi

Ans(d)

Sol.

• President of Egypt Abdel Fattah El-Sisi was the chief guest on Republic Day 2023.

• In 1950, friendly countries became part of the Republic Day celebrations.

• Indonesia's President Sukarno was the first country to be the guest of honor on Republic Day.

• In 2020, the then president of Brazil, Jair Bolsonaro, was the chief guest.

• In 2021, the then British Prime Minister Boris Johnson was invited as the chief guest, but his visit was canceled due to the threat of Corona.

Q30. Who is the winner of Swathi Thirunal Award 2023?

- (a) Dr. K Omanakutty
- (b) P. Jayachandran
- (c) Kaithapram
- (d) M. Jayachandran

Ans(b)

Sol.

• Singer P. Jayachandran received the music award of Sri Swathi Thirunal Sangeetvedi.

• Minister V. Shivankutty presented the award at a function held at Varsamegha Convention Center at Varkala Maidan.

• The Swathi award comprises certificate, citation and a purse of Rs 2 lakh

Q31. Who will win the Australian Open Women's Singles 2023?

- (a) Ahn Seong
- (b) Ashley Barty
- (c) Naomi Osaka
- (d) Aryana Sabalenka

Ans(d)

Sol.

• 2023 Australian Open Women's Singles Winner: Ariana Sabalenka

• Aryana Sabalenka is the first neutral athlete to win a Grand Slam title.

• Aryana Sabalenka is a Belarusian player, but she played under a neutral flag because the Belarusian flag was banned.

Q32. Which country won the first Under- 19 Women's Twenty20 World Cup ?

- (a) India
- (b) England
- (c) Bangladesh
- (d) Pakistan

Ans(a)

Sol.

First Under-19 Women's Twenty20 World Cup winners: India

• Indian women's first title in Cricket World Cup

• Defeated England in the final

• Player of the Final - Titas Sadhu (India)

• Player of the Tournament - Grace Scrivens (England)

• Captain of Indian team - Shafali Verma

• Coach of the Indian team - Nooshin Al Qadeer

• Malayali women cricketer who was a part of the reserve team - C. M. C. Najla

• First U-19 Women's Twenty20 World Cup hosted by South Africa

Q33. Who has won the 2023 Gnanapana Puraskar of Guruvayoor Devaswom?

- (a) Vidyadharan Master
- (b) VR Prabodhachandran Nair
- (c) KR Jayan
- (d) V. Madhusudan Nair

Ans(d)

Sol.

• 2023 Guruvayur Devaswom Jnanappana Award to renowned poet and teacher Prof. V. Madhusudanan Nair.

• The award is for comprehensive literary contribution.

• The Gnanapana award consists of fifty thousand one rupees, a ten gram gold medal with the picture of Sri Guruvayurappan, a certificate and a commemorative plaque (plaque).

Q34. New name of Aurangabad city in Maharashtra:

- (a) Chhatrapati Shivaji Nagar
- (b) Chhatrapati Sambhaji Nagar
- (c) Dharashiv
- (d) Osmanabad

Ans(b)

Sol.

• The central government has given permission to change the names of Aurangabad and Osmanabad cities in Maharashtra.

• Aurangabad will be named Chhatrapati Sambhaji Nagar and Osmanabad as Dharashiv.

• Aurangabad gets its name from the Mughal Emperor Aurangzeb.

• Chhatrapati Sambhaji is the name of the son of Maratha king Chhatrapati Shivaji.

• Osmanabad gets its name from the local king of Hyderabad.

• Dharashiv is the name of the cave complex near Osmanabad.

Q35. Prime Minister of Japan visiting India in March 2023:

- (a) Shinzo Abe
- (b) Yoshimasa Hayashi
- (c) Fumio Kishida
- (d) Kishida Fumio

Ans(c)

Sol.

• Prime Minister of Japan - Fumio Kishida visited India in March 2023

• Kishida's visit is part of strengthening bilateral ties with India in various fields including defense, security, trade, investment and high technologies.

- India's chairmanship of the G20 summit and Japan's chairmanship of the G7 summit will be discussed.

- It is reported that Kishida will unveil a new plan on the subject of a free and expansive Indo- Pacific.

- Both the Prime Ministers assessed India's importance in the Indo- Pacific and tensions with China in the region.

Q36. Air transport research firm Skytrax has topped its annual ranking of the world's best airports:

- (a) Singapore Changi Airport
- (b) Hamad Airport
- (c) Haneda Airport
- (d) Indira Gandhi International Airport

Ans(b)

Sol.

Hamad International Airport (HIA) in Qatar was just named the best airport in the world in the 2024 Skytrax awards, knocking 12-time winner Singapore Changi Airport down to second place.

Q37. Which is the scheme of the state government to provide practical training to law graduates belonging to Scheduled Castes and Scheduled Tribes?

- (a) Jwala
- (b) Dhanuss
- (c) Prashanthi
- (d) None of these

Ans(a)

Sol.

- Jwala is a state government scheme to provide practical training to law graduates belonging to Scheduled Castes and Scheduled Tribes

- The government appoints specially trained young lawyers from the Scheduled Tribes to ensure justice in the atrocities against the Scheduled Tribes.

- For this, the Scheduled Castes and Scheduled Tribes Development Department has decided to start a project called Jwala (Justice, Welfare and Legal Assistance).

- Law graduates belonging to Scheduled Tribes will be appointed as Legal Assistants in every district.

- In the first phase, 75 legal assistants will be trained and deployed. The training is for two years. 20,000 honorarium per month.

Q38. Read the following statements regarding the Bhuvan portal.

1. Bhuvan portal is developed by the ISRO for preparing maps of Indian territory.

2. School Bhuvan is a map based e- learning portal for students developed by ISRO with Sarva Shiksha Abhiyan.

3. Bhuvan-2D provides two- dimensional visualization of the Indian terrain.

Which among the codes given below is correct?

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

Ans(c)

Sol.

- School Bhuvan is a map based e- learning portal for students developed by ISRO with National Council of Educational Research and Training.

- Bhuvan portal is developed by the ISRO for preparing maps of Indian territory.

- It is a remote sensing image portal.

- Satellites belonging to IRS service are used for data collection.

- Bhuvan can prepare very precise maps, spatial resolution of the photographs are 10 meters.

Q39. Find the correct ones from the following statements?

1. A Chinook is a wind that blows along the eastern slope of the Rocky Mountains in North America.

2. Chinook is a warm wind.

3. The word chinook means snow food

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

Ans(b)

Sol.

- Chinook is a warm wind. This wind melts the snow on the mountain slopes and plains it passes through.

- Chinook is the word in the language of the Red Indians.

- It means snow eater.

- It blows down the eastern slopes of the Rocky Mountains in North America and causes freezing rain.

Q40. Which of the following are uses of topographic maps?

1. Analysis of the physical and the cultural features of the earth surface.

2. To calculate tax.

3. For urban planning

(a) 1, 2, 3

(b) 1, 2

(c) 2, 3

(d) 1, 3

Ans(d)

Sol.

Uses of topographic maps

1. Analysis of the physical and the cultural features of the earth surface.

2. For military operations and the preparation of military maps.

3. Identification and studying of the natural and the cultural resources of a region as part of economic planning.

Q41. Find the correct statement?

A. The 2023 Booker International Prize was won by Georgi Gusputinoff.

B. The novel Time Shelter won the 2023 Booker International Prize.

(a) Only A is correct

(b) Only B is correct

(c) Both are correct

(d) Both are false

Ans(c)

Sol.

- The 2023 Booker International Prize has been won by Bulgarian author, poet and playwright Georgi Gospodinov's novel Time Shelter.

- Georgie's novel was selected from six shortlisted books.

- It is the first Bulgarian book to win the International Booker

Prize.

- Based on the mysterious character Gaustin, a psychiatrist who treats dementia and Alzheimer's, the novel questions the politics, existence and memories of European nations.

Q42. Which country will host the 2034 FIFA World Cup?

(a) Qatar

(b) Australia

(c) New Zealand

(d) Saudi Arabia

Ans(d)

Sol.

- The country to host the 2034 FIFA Football World Cup - Saudi Arabia

- Saudi Arabia got a chance after Australia withdrew from the world cup.

- The deadline to submit applications for hosting the 2034 World Cup was October 31.

- Australia has announced that it is withdrawing from the move to become a host nation.

Q43. Select the correct statements related to the river Brahmaputra.

1. The word Brahmaputra means one who purifies

2. In India, Brahmaputra flows the most through Arunachal Pradesh.

3. Known as Dihang in Arunachal Pradesh.

(a) 2 only

(b) 3 only

(c) 1 only

(d) 1, 2, 3

Ans(b)

Sol.

- In India, Brahmaputra flows the most through Assam (750 km).
- Known as Siang or Dihang in Arunachal Pradesh.
- The Dihang River is known as the Brahmaputra after its confluence with the Dibang and Lohit tributaries.
- Brahmaputra - son of Brahma
- Sangpo- Purifier

Q44. Read the following statements and select the correct ones :

1. The Nivarthana agitation was a protest for the reservation of minorities.
 2. The Nivarthana Agitation was an agitation that took place in 1932.
 3. The Nivarthana agitation was the agitation that led to the formation of the Kerala PSC.
 4. Rani Setulakshmi Bhai was the ruler of Travancore at the time of Nivarthana agitation.
- (a)1,2
(b)1,3
(c)1,2,3
(d)2,3

Ans(c)

Sol.

- The Nivarthana agitation was an agitation to get reservation for the minorities.
- The Nivarthana agitation is an agitation demanding that the Ezhu, Muslims and Christians get representation in the Legislative Assembly in proportion to their population.
- The joint political committee is the organization behind the Nivarthana agitation
- In 1932, the Nivarthana movement was a protest against the constitutional reforms in Travancore.
- IC Chacko coined the word Nivarthana.

- Kerala Kesari is known as the mouthpiece of the Nivarthana agitation.

Q45. Find the mistake in the statements about the Silent Valley national park

1. Endangered lion-tailed monkeys are found.
 2. Due to the rarity of crickets, this area got its name of Silent Valley.
 3. It came into existence in 1984 and is located in Malappuram district.
- (a)2,3
(b)1,2
(c)3 only
(d)1,2,3

Ans(c)

Sol.

- In 1984, Silent Valley was declared a National Park by Indira Gandhi.
- Silent Valley National Park was inaugurated by Rajiv Gandhi in 1985.
- Thodupuzha is a river that originates in Silent Valley National Park.
- Kunthipuzha which flows through Silent Valley is a tributary of Thuthapuzha.
- It is the presence of fireflies that sustains the lion-tailed monkeys in the Silent Valley forest.

Q46. Find the wrong statement about local self-government bodies in Kerala.

1. The Kerala Legislative Assembly passed the Kerala Panchayati Raj Act in 1992.
 2. There are currently 941 Gram Panchayats and 152 Block Panchayats in Kerala.
 3. The current Local Self- Government Minister is MB Rajesh.
- (a)1,3
(b)2,3
(c)1,2
(d)1 only

Ans(d)

Sol.

1. The local self-government bodies in Kerala are functioning under the Kerala Panchayat Raj and Municipalities Act, 1994.

2. The panchayat system consists of village level (gram panchayat), clusters of villages (block panchayat) and district level (zilla panchayat).

3. All Panchayat Raj institutions have a tenure of 5 years.

Local bodies in Kerala

- 941 Gram Panchayats
- 152 Block Panchayats
- 14 District Panchayats
- 87 municipalities
- 6 Municipal Corporations

Q47. Which of the following is a lightning check conducted by state wide vigilance to catch overloaded vehicles?

- (a) Operation Overcargo
- (b) Operation Overweight
- (c) Operation Overlord
- (d) Operation Overlimit

Ans(c)

Sol.

State-wide vigilance conducted lightning checks to catch overloaded vehicles - Operation Overload

- Vigilance will also specifically check overloading of vehicles by changing shape.
- It has been decided to conduct a state-wide inspection.
- Vigilance has conducted 'Operation Overload' in past years too.
- Not only overloaded vehicles, but also GST evasion vehicles were seized during such inspections. If found violating the law, the vehicle will be impounded and fined.

Q48. Consider the following statements

1. Kerala's first organic village is established at Panthadi in Kasaragod district.

2. Kalamassery is the first Panchayat in Kerala to win the Nirmal Village Award.

3. Trikaripur is the first panchayat in Kerala to introduce Wi-Fi system .

Find the false statement.

- (a) 3 only
- (b) 2 only
- (c) 1 only
- (d) None of these

Ans(b)

Sol.

• Kerala's first organic village is established at Panthadi in Kasaragod district.

• It is being implemented with the help of South Korea.

• Peelikode is the first panchayat in Kerala to win the Nirmal Grama Puraskar.

Q49. Consider the following statements related to the Women's Reservation Bill.

1. The Women's Reservation Bill was approved by the President on 28 September 2023.
2. The Women's Reservation Bill was introduced by Union Minister of Employment Justice Arjun Ram Meghwal.
3. The 105th Amendment was introduced in the constitution for women's reservation

Find the statement that is not true.

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

Ans(c)

Sol.

• Amendment 106 is the amendment which included women's reservation in the constitution so statement 3 is false.

• Constitution Amendment Bill 128 related to Nita reservation.

• Lok Sabha state assemblies and Delhi Assembly have reserved 33 percent seats for women.

• Rajya Sabha approves Women's Reservation Bill - 21 September 2023

• Women's Reservation Bill approved by Lok Sabha 20 September 2023

• Name of Women's Reservation Bill introduced in Lok Sabha in September 2023 - Nareeshakti Vandan Adhiniyam.

• The Women's Reservation Bill was signed by the President on September 28, 2023

Q50. According to which of the following constitutional articles, the rules and regulations relating to the Central Civil Service and the State Civil Service are framed?

- (a)309
- (b)315
- (c)209
- (d)215

Ans(a)

Sol.

• Article 309 empowers Parliament and State Legislatures to regulate recruitments and conditions of service of persons appointed to public services.

• According to Article 309, Parliament or the State Legislature can impose reasonable restrictions on the fundamental rights of public servants.

• The President of India has the power to make rules for the All India Services and the Central Civil Services and the Parliament has the power to regulate them.

• The State Governor has the power to make rules for the State Civil Services and the State Legislature has the power to regulate them.

Q51. Find the correct statement/statements in the following statements,

1. Article 14A of the Constitution of India deals only with Administrative Tribunals.

2. Indian Constitution Part 14A was added to the Constitution by the 42nd Constitutional Amendment Act of 1976.

3. Article 323b of the Constitution deals with Administrative Tribunals.

(a)2 only

(b)1,3

(c)1,2

(d)1,2,3

Ans(a)

Sol.

• Section 14A of the Constitution of India deals not only with administrative tribunals but also with other tribunals so statement 1 is false.

• Article 323-A deals with administrative tribunals so statement 3 is false.

• Article 323-B deals with tribunals for other matters.

• The Swaran Singh Committee was the committee that recommended the establishment of Administrative Tribunals.

Q52. Which of the following statements are correct?

1. The Governor of the State appoints a person qualified for appointment as a Judge of the High Court as the Advocate General of the State under Article 165(1).

2. The term of the Advocate General is 5 years.

3. The present Advocate General of Kerala is Advocate K. Gopalakrishna Kurup.

(a) All statements are true

(b) Only 1 is correct

(c) Only 2 are correct

(d) 1 and 3 are correct

Ans(d)

Sol.

• The term of the Advocate General is not fixed and the office can continue as long as the pleasure of the Governor so statement 2 is false.

• Article 165 of the Constitution deals with the Advocate General.

• According to the constitution, the Advocate General of the respective state is the highest legal officer who must be present in each state.

• The Advocate General is appointed by the Governor of the respective State on the advice of the Cabinet.

Q53. The Kerala State Planning Board has been constituted to advise on the development planning of the state. Which of the following are the functions of the State Planning Board?

1. Formulating five-year and annual plans.
2. Preparation of annual financial review.
3. Foster cooperative federalism through structural support initiatives.
4. Implements interdepartmental coordination with respect to plan schemes.

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

Ans(c)
Sol.

• Although the Planning Commission came into existence at the national level in 1950, the State Planning Board was formed in Kerala in 1967 as part of implementing comprehensive planning at the state level.

• The Board, chaired by the Chief Minister, will have a Vice-Chairman, members handling core areas and part-time members.

• The Chief Secretary and the Finance Secretary are regular invitees on the board.

• The Planning Board coordinates various activities through seven major departments and takes the helm of development activities.

Q54. Which of the following statements is correct?

1. Protection of Human Rights Act came into force in India on 28 September 1993.
 2. The National Human Rights Commission came into existence on October 12, 1993.
 3. Kerala State Human Rights Commission was formed on 10 December 1998.
 4. The United Nations Universal Declaration of Human Rights was made on December 10, 1948.
- (a) 1 only
(b) 1,2

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

Ans(d)
Sol.

• Any human right guaranteed in the constitution or in international declarations and to the life, liberty, equality and dignity of the person can be called human right.

• The National Human Rights Commission is an institution established to protect such rights in India.

• The mandate of the National Human Rights Commission is to exercise the powers and responsibilities prescribed by the Protection of Human Rights Act passed by the Parliament of India on September 28, 1993.

• The National Human Rights Commission came into existence on 12 October 1993 under the Human Rights Act, 1993.

Q55. Which is the largest Wildlife Sanctuary in Kerala?

- (a) Periyar
(b) Karimpuzha
(c) Muthanga
(d) None of these

Ans(a)
Sol.

• The number of wildlife sanctuaries in Kerala is 18

• Kerala's first wildlife sanctuary - Periyar.

• Periyar is the largest wildlife sanctuary in Kerala

• The last wildlife sanctuary in Kerala - Karimpuzha

• Muthanga Wildlife Sanctuary is the only wildlife sanctuary that shares the border with the states of Karnataka and Tamil Nadu.

• Muthanga, Kerala's second largest wildlife sanctuary, is home to Sultan Bathery.

Q56. Which of the following facts about Vaikom Satyagraha are true?

1. E. V. Ramasamy Naicker was arrested in connection with the Vaikom Satyagraha.

2. The Vaikom Satyagraha continued even during the floods of 1924.

3. The legislature voted on February 7, 1925, with 22 members in favor and 21 against.

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

Ans(b)
Sol.

• The Vaikom Satyagraha was a non-violent protest against untouchability that began on March 30, 1924, in the former princely state of Travancore, which is now part of Kerala. The protest lasted for 603 days.

• The Satyagraha was organized around the Vaikom Mahadeva Temple in the present-day Kottayam district.

• The objective of the Satyagraha was to secure the right of all sections of society to walk on the public roads leading to the temple.

• In the Kakinada session of the Indian National Congress in December 1923, a resolution was passed calling for nationwide action against untouchability.

Q57.Facts relating to the Civil Disobedience Movement.

1. Gandhi declared non-violent struggle for Purna Swaraj.

2. Gandhi's Dandi March (12 March 06 April) from Sabarmathi to Sea through the heartland of Gujarat.

3. "You planned a fine strategy around the issue of salt" Nehru would admit to Gandhiji in February 1931.

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

Ans(d)
Sol.

Uppu Satyagraha is a non-violent satyagraha started by Mahatma Gandhi on March 12, 1930 in

protest against the imposition of tax on salt in British India.

• It started with Mahatma Gandhi's trip to Dandi.

• This was the first declared strike after the announcement of Purna Swaraj under the leadership of the Indian National Congress.

• Under the leadership of Mahatma Gandhi, the Dandi Yatra took place from Gandhi's Ashram in Sabarmati, Gujarat to Dandi to produce salt without paying taxes.

• Hundreds of thousands of Indians were sued by the British government after Gandhi and his group broke the salt tax law.

Q58.Consider the facts relating to the Central Information Commission.

1. Sri Hiralal Samariya, Chief Information Commissioner.

2. The Central Information Commission has been constituted with effect from 12th October 2005.

3. The jurisdiction of the commission extends over all Central and State Public Authorities.

Find the correct statement

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

Ans(b)
Sol.

• The Central Government established the Central Information Commission on 12 October 2005 under the provisions of the Right to Information Act (2005).

• Members are appointed by the President of India on the recommendation of a committee consisting of the Prime Minister as Chairperson, the Leader of the Opposition in the Lok Sabha and a Union Cabinet Minister nominated by the Prime Minister.

• The Central Information Commission consists of a Chief Information Commissioner and not more than ten Information Commissioners.

Q59. Consider the following statements and select the correct answer using the codes given below :

1. The Bhabar tract is a pebble studded zone.
 2. The Bhangar represents the newer alluvium.
 3. The Khaddar represents the older alluvium.
 4. The Terai is a zone of excessive dampness.
- (a)3,4
(b)2,4
(c)1,4
(d)1,2,4

Ans(c)
Sol.

- Alluvial soil is the soil that washes down from the mountains and rivers during the rainy season and hits the land.
- Fertile loam soils are mainly found in river valleys and coastal areas. Fertile loam soils, highly suitable for agriculture, are an important soil type found in India.
- Khadar is a newly formed alluvial soil in river valleys.
- The old alluvial soil is known as Bhangar.

Q60. _____ is the storage form of lipids in adipose tissue.

- (a)LDL
(b)VLDL
(c)Triglycerides
(d)HDL

Ans(c)
Sol.

Adipose, or fat, tissue is loose connective tissue composed of fat cells known as adipocytes.

- Storage and release of lipids are major functions of adipocytes.
- Adipocytes contain lipid droplets of stored triglycerides.

Q61. Which was the only Round Table Conference Session attended by Gandhiji?

- (a)First
(b)Second

- (c)Third
(d)None

Ans (b)

Q62. Which article of the Constitution explains that policies like reservation cannot be seen as a violation of the right to equality?

- (a)Article 16 (1)
(b)Article 16 (2)
(c)Article 16 (3)
(d)Article 16 (4)

Ans(d)
Sol.

Article 16 (4)

- Nothing in this Article shall prevent the State from making provision for reservation of appointments or posts in favor of any backward class of citizens who are not adequately represented in the services under the State.
- This article allows the state to reserve jobs or posts for backward class citizens who are not adequately represented in state services.
- This provision is an exception to the general rule of equal opportunity and aims to promote social justice and equality by providing opportunities to underrepresented groups.

Q63. Which of the following is not a symptom of Type 2 Diabetes?

- (a)Frequent urination
(b)Increased hunger
(c)Excessive thirst
(d)Improved vision

Ans(d)
Sol.

• Type 2 diabetes is a chronic medical condition characterized by high blood sugar levels, resulting from a combination of insulin resistance and impaired insulin secretion.

• It is the most common form of diabetes, accounting for approximately 90% of all diabetes cases.

• In type 2 diabetes, the body's cells become less responsive to insulin, a hormone produced by the pancreas that regulates blood sugar levels. As a result, blood sugar levels rise, leading to symptoms

such as increased thirst and hunger, fatigue, blurred vision, and slow healing of cuts and wounds.

Q64. Consider the following statements related to the introduction of governance structures

1. It was Jawaharlal Nehru who suggested that the preamble should begin with the lines "In the name of God..."

2. The objective resolution presented by Jawaharlal Nehru was passed by the Constituent Assembly on January 25, 1947.

- (a) 2 only
- (b) 1, 2
- (c) 1 only
- (d) None of the above

Ans(d)

Sol.

• The objective resolution presented by Jawaharlal Nehru was passed by the Constituent Assembly on 22 January 1947.

• H.V.Kamat suggested that the preamble should begin with the lines "In the name of God..."

• The word fraternity in the preamble was suggested by - BR Ambedkar

• The introduction begins with We the people of India.

Q65. Consider the following statements:

1. Citizenship is dealt with in Part II of the Constitution of India.

2. Article 6 refers to the rights of Indian citizens who immigrated to Pakistan after 1947 and subsequently returned to India.

3. Citizenship as envisaged by the Constitution of India is a single citizenship.

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

Ans(d)

Sol.

• Part II deals with Citizenship in the Constitution of India

• Citizenship as envisaged by the Constitution of India - Single citizenship

• The country from which India borrowed the concept of single citizenship - Britain

• Article 5 to 11 deals with citizenship in the Constitution

• Article 6 - Right to citizenship for immigrants from Pakistan to India.

• Article 7 - Rights of Indian citizens who immigrated to Pakistan after 1947 and subsequently returned to India

Q66. Government by one person with absolute power ?

- (a) Autocracy
- (b) Democracy
- (c) Meritocracy
- (d) Republic

Ans(a)

Sol.

• A state of disorder due to absence or non-recognition of authority or other controlling systems - Anarchy

• A form of government in which power is held by the nobility - Aristocracy

• A system of government by one person with absolute power Autocracy

• A self-governing country or region Autonomy

• A system of government in which most of the important decisions are taken by state officials rather than by elected representatives Bureaucracy

Q67. Find out the type of tense: Kites were being flown by him

- (a) Present tense
- (b) Past tense
- (c) Past continuous tense
- (d) Past perfect tense

Ans(c)

Sol.

• Past continuous tense is used to denote an ongoing action of the past. It denotes the past actions that are going on till now.

• Subject+were/was+verb-ing+object is the syntax.

• Here kites is a noun, were+being- past continuous, him-object. In negative sentences we must use 'not'. Subject+were/was+not+verb-ing+object.

Q68.Fill in the blanks with suitable modal verb:
You _____ pay the fees in time.

- (a)would
- (b)should
- (c)might
- (d)will

Ans(b)
Sol.

"Should" is a modal verb most commonly used to make recommendations or give advice. It can also be used to express obligation as well as expectation.

Ex: You should pay the fees in time.

Q69.Fill in the blanks with suitable preposition:
School begins _____ Monday.

- (a)In
- (b)On
- (c)From
- (d)Since

Ans(b)
Sol.

Option b is the correct preposition apt the given sentence.
It is used here to specify the day.

Q70.The antonym of Comprise is?

- (a)Include
- (b)Contain
- (c)Involve
- (d)Lack

Ans(d)
Sol.

• Comprise- consist of; be made up of.

• Eg: "The country comprises twenty states."

• The antonyms of compromise are lack, exclude, fall short, need, fail, except, drought, unloose, want.

Q71.In the following sentence Supply a verb in agreement with its subject. The pair of scissors _____ in the drawer

- (a)is
- (b)are
- (c)were
- (d)none of these

Ans(a)
Sol.

• Subject-Verb Agreement. Subjects and verbs must agree with one another in number (singular or plural).

• Thus, if a subject is singular, its verb must also be singular; if a subject is plural, its verb must also be plural.

Q72.Masculine gender of vixen

- (a)Donkey
- (b)Dog
- (c)Cat
- (d)Fox

Ans(d)
Sol.

Option d) fox is the correct answer.

Q73.Convert the following Direct Speech into Indirect Speech. 'Don't park here,' the policeman told me.

- (a)The policeman told me can't park there.
- (b)The policeman told me don't park there
- (c)The policeman told me not to park here
- (d)The policeman told me not to park there

Ans(d)
Sol.

• An imperative sentence expresses an order, a command or a request.

• While reporting an Imperative sentence:

• The reporting verb 'said /said to' changes to requested, ordered, commanded, advised, warned or told.

• Connecting word is 'to', and the verb is not changed after 'to'.

• Usually we use a to-infinitive structure.

- For negative imperative sentences, If 'don't' comes then add 'not to'.

Q74. Identify the 'Common Noun' from the following.

- (a) Buckingham Palace
- (b) Newspaper
- (c) Cynthia
- (d) Chicago

Ans(b)
Sol.

- A common noun is the generic name for one item in a class or group.

- For Example: Palace, Girl, Book etc.

- A proper noun is a specific name for a particular person, place, or thing.

- Here, Buckingham Palace, Cynthia and Chicago are proper nouns.

- "Newspaper" is a common noun.

Q75. Find the meaning of the idiom "Small fry".

- (a) Unimportant person
- (b) Lazy one
- (c) A scholar
- (d) Worthless man

Ans(a)
Sol.

1. Small fry - unimportant person.
2. Slow coach - Lazy one.
3. Man of letters - a scholar.
4. Man of straw - worthless man.

Q76. What is the last element in the periodic table?

- (a) Helium
- (b) Tennessine
- (c) Oganesson
- (d) Uranium

Ans(c)
Sol.

- There are 118 elements in the periodic table.
- Uranium is the 92nd element.

- Helium - 2nd element.
- Tennessine - 117
- Oganesson - 118

Q77. Name the causative organism of Malaria?

- (a) Streptococcus
- (b) Entamoeba
- (c) Rhinovirus
- (d) Plasmodium

Ans(d)
Sol.

Malaria is a protozoan infection of the red blood cells, transmitted by the bite of a female anopheles mosquito. Malaria is caused by the protozoa of the genus Plasmodium.

- Infection by malaria is the most common cause of spleen rupture and splenomegaly, albeit variably, a landmark of malaria infection.

- Malaria is transmitted to humans by female mosquitoes of the genus Anopheles.

- Blackwater fever is a complication of malaria infection in which red blood cells burst in the bloodstream (hemolysis), releasing hemoglobin directly into the blood vessels and into the urine, frequently leading to kidney failure.

Q78. Which is India's first communication satellite?

- (a) Oceansat
- (b) GSAT-7
- (c) APPLE
- (d) GSAT-3

Ans(c)
Sol.

- India's first oceanographic satellite Oceansat
- India's first weather satellite - Metsat
- India's first defense satellite - GSAT-7
- India's first naval satellite - GSAT-7
- India's first multipurpose satellite - INSAT

Q79. Adrenaline is also known as:

- (a) Epinephrine
- (b) Norepinephrine

- (c) Vasopressin
- (d) None of these

Ans(a)

Sol.

- Epinephrine is another name for adrenaline.
- Norepinephrine is another name for Noradrenaline.
- Vasopressin, also called antidiuretic hormone (ADH), arginine vasopressin (AVP) or argipressin.

Q80. Which of the following statements is not correct?

1. Insulin reduces the entry of glucose into the cell
2. Insulin accelerates the entry of glucose into the cell
3. Diabetes mellitus causes the excretion of glucose through the urine
4. Diabetes mellitus causes the formation of dangerous ketone bodies in the urine

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

Ans(d)

Sol.

- Insulin accelerates the entry of glucose into the cell so statement 1 is incorrect.
- When the blood glucose level exceeds a certain threshold, glucose is detected in the urine. This disease is called diabetes.
- Diabetes is a leading cause of heart attack and stroke
- Dialysis is required due to kidney failure.
- Diabetes is a lifelong disease. It cannot be completely reversed unless controlled. Effective treatment exists in modern medicine. The patient may need to continue the medication for the rest of his life.

Q81. During the projectile motion, the acceleration of the particles in the horizontal direction is

- (a) Equal to g
- (b) Zero
- (c) Less than g
- (d) More than g

Ans(b)

Sol.

- Since there is no force in the horizontal direction, there will be no acceleration in the horizontal direction during projectile motion.
- So the acceleration of the particle in the horizontal direction is zero.
- For a projectile, the horizontal acceleration a_x is zero.

Q82. Consider the following statements

1. Digestion of food is completed and absorption begins in the large intestine
 2. Assimilation is the process by which ingested food components become part of the body
- Choose the correct option

- (a) 1 and 2 are correct
- (b) 1 correct 2 incorrect
- (c) 1 and 2 are incorrect
- (d) 1 incorrect 2 correct

Ans(d)

Sol.

- Digestion of food is completed and absorption begins in the small intestine so statement 1 is incorrect
- After absorption in the small intestine, most of the remaining salts and water are absorbed in the large intestine.
- The Duodenum is the first part of the small intestine where the digested food leaves the stomach

Q83. Choose the correct statement:

1. The thalamus is known as the relay station in the human body
 2. Thalamus is the center of transmission of impulses from cerebrum to cerebellum.
- (a) 1 only
 - (b) 2 only
 - (c) both 1 and 2

(d)neither 1 nor 2

Ans(c)

Sol.

• The thalamus is known as the

relay station in the human body • Thalamus is the center of

transmission of impulses from cerebrum to cerebellum.

• It is also responsible for regulating consciousness and sleep.

• The thalamus is an important structure that mediates different components of pain

Q84.By how much does Kinetic Energy increase if the momentum is increased by 20%?

(a)22%

(b)11%

(c)44%

(d)33%

Ans(c)

Sol.

• Kinetic Energy $KE = \frac{1}{2}mv^2$.

• $KE_{new} = \frac{1}{2}m(1.2v)^2$.

$= \frac{1}{2} \times 2m \times 1.44(v^2)$.

$= 1.44 \times \frac{1}{2}mv^2$

$= 1.44 \times K.E = 44\% \text{ increase.}$

Q85.Consider the following statements related to the quantum mechanical model

1. According to the quantum mechanical model, the area in which an electron is likely to be seen is called an orbital.

2. The maximum number of electrons that can fit into an orbital is 8.

Select the correct option:

(a)1 and 2 are wrong

(b)1 False 2 True

(c)1 True 2 False

(d)None of the above

Ans(c)

Sol.

Quantum mechanical model was discovered by Irwin Schrödinger.

• In the quantum mechanical model, the exact path of the electron cannot be found, only the area where the electron is likely to be seen

• According to the quantum mechanical model, the area in which an electron is likely to be seen is called an orbital.

• The number of electrons that can occupy an orbital is 2.

Q86.Which statement is wrong?

1. Algal blooms are caused by excessive nutrient levels in water bodies.

2. Biological magnification is the phenomenon in which chemical contaminants accumulate in an aquatic food chain.

3. Eutrophication causes a lake to gradually turn into land.

(a)3 only

(b)2,3

(c)1,2,3

(d)None of these

Ans(d)

Sol.

• Biological magnification is a condition in which certain toxic substances in industrial effluents accumulate in the aquatic food chain.

• The higher the nutrient level, the more intense the toxicity.

• Eutrophication is a naturally occurring adverse change in lakes due to increased nutrient levels.

• Eutrophication causes a lake to gradually become land.

Q87.When the concentration of glucose and salts decreases in the small intestine, absorption into the blood is by which process?

(a)Active transport

(b)Facilitated diffusion

(c)Tyndall effect

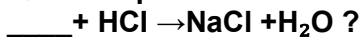
(d)Cohesion

Ans(a)

Sol.

- In cellular biology, active transport refers to the movement of molecules or ions across a cell membrane.
- From a region of low concentration to a region of high concentration against the concentration gradient.
- Active transport requires cellular energy to achieve this movement.
- In the small intestine, glucose and salts are absorbed by the active transport process into the bloodstream.

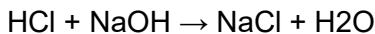
Q88. Complete the following reaction:



- (a) NaOH
- (b) NH₃
- (c) Na
- (d) NaO

Ans(a)

Sol.



- Here, an acid and a base, Hydrochloric acid and Sodium Hydroxide react in a neutralization reaction to produce Sodium chloride (Common Salt) and water as the products.

Q89. C₆₀ is the most stable form of fullerene, known as?

- (a) Coal
- (b) Buckminsterfullerene
- (c) Graphene
- (d) Graphite

Ans(b)

Sol.

- Buckminsterfullerene is a spherical molecule made up of 60 carbon atoms arranged in a cage-like structure.
- The structure of buckminsterfullerene resembles a soccer ball, with 12 pentagons and 20 hexagons.
- Coal, graphene, and graphite are all allotropes of carbon, but they are not fullerenes.

Q90. What is the condition where there is a sudden interruption of blood flow to the brain, leading to loss of brain function and often resulting in paralysis or death?

- (a) Stroke
- (b) Heart attack
- (c) Aneurysm
- (d) Embolism

Ans(a)

Sol.

- The answer is a) Stroke.

- A stroke is a sudden interruption of blood flow to the brain, leading to loss of brain function. It is the fifth leading cause of death and the leading cause of disability in adults.

- There are two main types of stroke: ischemic stroke and hemorrhagic stroke.

- Ischemic stroke is caused by a blockage in a blood vessel that supplies blood to the brain. This blockage can be caused by a blood clot or a narrowing of the blood vessel.

- Hemorrhagic stroke is caused by a blood vessel in the brain that ruptures and bleeds into the brain tissue.

Q91. Find the odd one from the given numbers?

- (a) 169
- (b) 159
- (c) 139
- (d) 129

Ans(a)

Sol.

169

169 is a perfect square.

$$\sqrt{169} = 13$$

Q92. If the position of A in a row is 16 from left and right, how many people are there in that row in total?

- (a) 31
- (b) 21
- (c) 32
- (d) 22

Ans(a)

Sol.

First place = 16

Last position = 16

Total number of people
 = (sum of places) - 1 = (16+16) - 1 = 31

Q93.In a code language, if ARUN is coded as 54, how will AKHIL be coded in language?

- (a)44
- (b)33
- (c)41
- (d)51

Ans(c)

Sol.

The code consists of adding the position number of the letters.

ARUN $1+18+21+14 = 54$

AKHIL = $1+11+8+9+12 = 41$

Q94.A person walks 12 km due north, then 15 km due east, after that 19 km due west and then 15 km due south. How far is he from the starting point?

- (a)5
- (b)9
- (c)37
- (d)61

Ans(a)

Sol.



- Hypotenuse = $\sqrt{\text{height}^2 + \text{base}^2}$
- height=3km
- base =4km
- 5 km is the answer.

Q95.Pradeep is the father of Vijay and the grandfather of Akshay who is the brother of

Ritu. Mother of Ritu is Akshara who is married to Surya. Akshara is the sister of Vijay. How is Surya related to Pradeep?

- (a)Nephew
- (b)Brother-in-law
- (c)Son
- (d)Son-in-law

Ans(d)

Sol.

Akshara is daughter of Pratheep and Surya is husband of Akshara. So Surya is son in law of Pradeep.

Q96.Find the value of K, if K+2, 4K-6, 3K-2 are consecutive terms of an AP?

- (a)3
- (b)5
- (c)12
- (d)4

Ans(a)

Sol.

If a, b, c are consecutive terms of an AP

$b = (a + c)/2$

$4k - 6 = (k + 2 + 3k - 2)/2$

$4k - 6 = (4k)/2$

$4k - 6 = 2k$

$2k = 6$

$k = 3$

Q97.If 20% of a number is equal to 60% of 480 then find the number?

- (a)144
- (b)288
- (c)36
- (d)1440

Ans(d)

Sol.

Let the number be X 60% of 480

$= 480 \times (60/100)$

$= 288$

$X \times (20/100) = 288$

$X = 28800/20$

$= 1440$

Q98.The sum of two numbers is 10. Their product is 20. Then what is the sum of the reciprocals of the numbers?

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

Ans(d)

Sol.

Let the two numbers be x and y.

Sum of two numbers is 10

$$x+y=10$$

The product of two numbers is 20

$$xy=20$$

Reciprocal sum of numbers $1/x+1/y$

$$= \frac{x+y}{xy}$$

$$= \frac{10}{20}$$

$$= \frac{1}{2}$$

Q99. A sum of money triples itself in 8 years at simple interest. Find the rate of interest?

(a) 25%

(b) 20%

(c) 18%

(d) 26%

Ans(a)

Sol.

Take sum as 100

After 8 years, amount=300

Total interest=300-100-200

1 year interest = $200/8 = 25$

interest rate = $25/100 \times 100 = 25\%$

Q100. If the radius of a cylinder is 8 cm and the height is 9 cm, what is the curved surface area?

(a) 120π

(b) 124π

(c) 140π

(d) 144π

Ans(d)

Sol.

Curved surface area = $2\pi rh$

$$= 2\pi \times 8 \times 9$$

$$= 144\pi$$