



PREPERATORY TEST – 2

Held on 23rd June, 2024

KAS- 2024

ANSWER KEY AND SYNOPSIS

NAMMAKPSC

Note: We have taken all effort to ensure correct answer keys. In case of any mistakes, please refer to the detailed synopsis. Please mail us at nammakpsc@gmail.com or call us for any assistance. Thank you

1. Ans : C

- The Tyndall effect refers to the scattering of **light by colloidal particles suspended in a medium.**
- When a beam of light passes through a colloidal dispersion, the **suspended particles scatter the light**, making the beam visible.
- This effect is commonly observed in everyday phenomena such as the illumination of smoke in sunlight or the visibility of laser beams in fog.
- The Tyndall effect is indeed used in various applications, including **the analysis of water purity.** By measuring the intensity of scattered light, scientists and engineers can assess the presence of colloidal particles in water, which may indicate impurities or contaminants.

2. Ans : D

- **Salivary amylase, also known as ptyalin, is an enzyme secreted by the salivary glands that begins the digestion of carbohydrates in the mouth.** It breaks down complex carbohydrates, such as starch, into simpler sugars like maltose.
- **Glycogen is the main storage form of glucose in animals, including humans.** It is **predominantly stored in the liver and muscles** and serves as a reserve of readily available energy. When blood glucose levels are low, glycogen can be broken down into glucose to provide energy for the body.
- **High levels of blood glucose, often resulting from the breakdown of carbohydrates in the diet, can lead to insulin resistance and type 2 diabetes mellitus.** In this condition, cells become less responsive to the effects of insulin, a hormone that regulates blood glucose levels, leading to elevated blood sugar levels and various health complications.

3. Ans : D



- Unlike uranium, **thorium cannot be directly used as nuclear fuel in a reactor due to its lack of sufficient fissile material** to sustain a nuclear chain reaction.
- Thorium requires additional processing, such as conversion to uranium-233 or use in conjunction with uranium or plutonium, to be utilized effectively in nuclear reactors.
- As of February 2021, the state of Andhra Pradesh has the largest monazite resource in India, with 3.78 million tonnes of monazite reserves identified by the Atomic Minerals Directorate for Exploration and Research (AMD).
- **Kerala does not have the largest reserves of rare earth minerals, including monazite, in India.**

4. Ans : D

- **Danuri is the Republic of Korea's (South Korea) first exploratory space mission** to travel beyond Earth's orbit, launched in collaboration with NASA.
- It is also called Korean Pathfinder Lunar Orbiter, launched to study Moon's Surface and identify potential landing sites for future missions.
- The Korea Aerospace Research Institute (KARI) is the aeronautics and space agency of South Korea who is managing the manufacturing and operation of the orbiter, and NASA supports the mission with the development of one among the six scientific payloads as well as aiding spacecraft communications and navigation.

5. Ans : D

Ministry of Health and Family Welfare, Government of India provides several vaccines to infants, children and pregnant women through the Universal Immunisation Programme.

Vaccines provided under UIP:

- BCG (Bacillus Calmette-Guerin vaccine)
- OPV (Oral Polio Vaccine)
- Hepatitis B vaccine
- Pentavalent Vaccine
- Rotavirus Vaccine
- PCV (Pneumococcal Conjugate Vaccine)
- FIPV (Fractional Inactivated Poliomyelitis Vaccine)
- Measles/ MR vaccine
- JE vaccine (Japanese encephalitis vaccine)
- DPT booster (Diphtheria, Tetanus and Pertussis)
- Tetanus and adult diphtheria (Td) vaccine

**6. Ans : A**

- Antimicrobial Resistance (AMR) occurs when pathogens change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death.
- As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective and infections become increasingly difficult or impossible to treat.
- Antimicrobials are medicines used to prevent and treat infections in humans, animals and plants.
- It includes
 - Antibiotics
 - Antivirals
 - Antifungals
 - Antiparasitics

7. Ans : C

- Sound is the form of energy which gives the sensation of hearing. The speed of sound depends upon medium and temperature.
- The speed of the **sound will increase with temperature increase.**
- The number of vibrations made by a particle in one second is called the frequency of a sound wave. It depends upon the source of the sound.
- **Thus the frequency will not change when a sound wave travel from one medium to another.**
- The **speed of the sound will decrease with the increasing density.** The density of Hydrogen is lesser than the density of air. Thus the sound travels faster in Hydrogen medium compared to air medium.

8. Ans : A

- IN-SPACe is an **autonomous and single window nodal agency in the Department of Space** for the promotion, encouragement, and regulation of space activities of both government and private entities.
- IN-SPACe is supposed to be a facilitator, and also a regulator.
- It **will act as an interface between ISRO and private parties** and assess how best to utilize India's space resources and increase space-based activities.
- IN-SPACe is an **autonomous body with its own board**—with some members from the private sector and industry —**and chairperson.**
- **Dr. Pawan Kumar Goenka, is the Chairman of IN-SPACE. Somanath.S is the chairman of ISRO**

Question is asking incorrect statements

9. Ans: B

- The Large Hadron Collider (LHC) is the world's largest and most powerful particle accelerator. It is designed to accelerate particles, such as protons, to extremely high energies and then collide them together.
- These collisions allow scientists **to study the fundamental properties of matter and the universe at the smallest scales.**
- The primary goal of the LHC is to explore the fundamental particles and forces that make up the universe, including the search for new particles and the **study of the properties of known particles.**
- By colliding particles at high energies, scientists can recreate conditions similar to those that existed in the early universe, moments after the Big Bang. This helps in understanding the fundamental laws of nature and the evolution of the cosmos.

10. Ans : B

- A superconductor is a material that achieves superconductivity, a state of matter with **no electrical resistance, and does not allow magnetic fields to penetrate.**
- Because of zero resistance, superconducting materials can save huge amounts of energy and be used to make highly efficient electrical appliances.
- Critical Temperature is a temperature at which the material becomes superconductive, where the material shows Zero resistance.
- **Only below the critical temperature material acts as a superconductor.**
- Scientists have been able to make materials superconduct only at temperatures much below zero degrees C, which makes it practically very difficult.
- Hence only two statements are correct

11. Ans : D

- LIGO stands for **Laser Interferometer Gravitational-Wave Observatory. It is used for observation of gravitational wave.**
- There are only two LIGO Detectors there to study Gravitational waves- Hanford in Washington and Livingston in Louisiana.
- Recently in News: 225 hectares of land have been handed over to the project authorities for setting up the LIGO Observatory in the Hingoli Taluk of the Parbhani District of Maharashtra. **If Hingoli LIGO Detector is completed, it will be the third Gravitational Wave detector worldwide.**

12. Ans : C

- **Dark energy, the mysterious form of energy that makes up about 68% of the universe.**



- Albert Einstein was the first person to realize that empty space is not nothing.
- According to his “Theory of Relativity”, the first property that he discovered is that it is possible for more space can come into existence, and also his second prediction is that **"empty space" can possess its own energy.**
- As this energy is a property of space itself, it would not be diluted as space expands. As more space comes into existence, more of this energy-of-space would appear.
- As a result, this form of energy would cause the universe to expand faster and faster and cannot be decelerated

13. Ans : A

- CRISPR-Cas9 is a **revolutionary gene-editing technology** that allows scientists to precisely modify genes within an organism's DNA.
- CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) are segments of DNA that contain short, repetitive sequences. Cas9 (CRISPR-associated protein 9) is an enzyme that can be programmed to target specific sequences of DNA.
- Using CRISPR-Cas9, scientists can make changes to the DNA sequence of an organism by guiding the Cas9 enzyme to a specific location in the genome and inducing a double-strand break in the DNA.
- This break can then be repaired by the cell's natural repair mechanisms, resulting in precise modifications to the DNA sequence.
- CRISPR-Cas9 technology has a wide range of potential applications, including the correction of genetic diseases, the creation of genetically modified organisms for research and agriculture, and the study of gene function and regulation.

14. Ans : A

- The **United Kingdom recently announced plans to build the world's largest offshore wind farm in the North Sea.** This project, known as the **"Dogger Bank Wind Farm,"** is a joint venture between SSE Renewables and Equinor, with financial support from the UK government.
- Once completed, the Dogger Bank Wind Farm will have a total installed capacity of 3.6 gigawatts (GW), making it the largest offshore wind farm in the world. It will consist of three separate phases, each with its own set of wind turbines located in the shallow waters of the North Sea.
- This ambitious project is part of the UK's efforts to expand its renewable energy capacity and reduce its dependence on fossil fuels. Offshore wind

energy has emerged as a key component of the UK's strategy to achieve its climate targets and transition to a low-carbon economy.

15. Ans : C

- Google's quantum computer achieved a significant milestone by demonstrating what is known as "quantum supremacy."
- Quantum supremacy refers to the ability of a quantum computer to perform a task that is practically impossible for classical computers to accomplish within a reasonable amount of time.
- In October 2019, **Google announced that its quantum computer, named Sycamore, had successfully completed a complex computation in just over 3 minutes.**
- This computation, which involved generating random numbers using quantum circuits, would have taken the world's most powerful supercomputers thousands of years to complete.

16. Ans : A

- Species evenness or Species Abundance is the number of individuals of each species in an ecosystem.
- It calculates the relative abundance of each species in a community. Species Evenness measures the proportion of species at a given site.
- **Greater Species evenness indicates the region has more species with roughly equal in numbers** whereas the low Species evenness indicates, the region is dominated by one or more species.
- **Species richness refers to the number of various species in a defined area.** Species richness may be measured by dividing the total number of species by the total area of the defined ecosystem. **Unlike species diversity, species richness does not take species abundance into account.**

17. Ans : C

- The quality of oxygen used up by microorganisms at 27°C and in darkness for 3 days in breaking down organic wastes in a water body is called its biological oxygen demand (BOD). Its value is a standard criterion for managing water pollution by computing oxygen levels in a water body.
- **The B.O.D. value of an aquatic system depends upon the following**
 - **The type and amount of organic waste**
 - **The organisms acting on it**
 - **Temperature and pH**

- **Salinity** - With high salinity there is a lower quantity of bacteria as a result of salt content suppressing bacterial growth and multiplication, and thus high DO is produced, resulting in low BOD.

Source of water is not a direct factor (unless the above factors affect the source) hence it is incorrect.

18. Ans : A

- Ecological footprint is a concept that **denotes the per capita ecological damage/environment impact.**
- It is a resource accounting tool that helps countries understand their ecological balance sheet and gives them the data necessary to manage their resources and secure their future.
- By measuring the footprint of a population, an individual, city, or a nation we can assess the pressures on our planet.
- **An ecological deficit occurs when the Footprint of a population exceeds the bio capacity of the area available to that population.**
- **Ecological overshoot is the phenomenon which occurs when the demands made on a natural ecosystem exceed its regenerative capacity.**

19. Ans : D

- Conservation reserves and community reserves in India are terms denoting protected areas of India that typically act as buffer zones to connectors and migration corridors between established national parks, wildlife sanctuaries, and reserved and protected forests of India.
- These protected area categories were first introduced in 2002 by amending the **Wildlife Protection Act of 1972.**
- **Jammu and Kashmir have the highest number of Conservation Reserves in India, and** in terms of Area, West Bengal has the highest area cover of conservation cover,

20. Ans : D

- Black carbon is the black material emitted from gas and diesel engines, coal-fired power plants, and other sources that burn fossil fuels. They may vary in size and can be much smaller than PM_{2.5}. **It is a major contributor to the fine particle (PM_{2.5}) burden in the air and not (PM₁₀).**
- It is a **short-lived climate pollutant** with a lifetime of only days to weeks after release in the atmosphere.
- **Household energy production contributes the major source of black carbon** with 51%.

- The **Indo-Gangetic plain** is spread over North India in Haryana, Delhi, U.P., Bihar, partly Jharkhand, and West Bengal. These cities are mostly having a large dense population. Because of the large amount of fossil fuel usage, this region has a **high burden of Black carbon (BC)**

21. Ans : C

- Biomagnification, also known as bioamplification or biological magnification, is the process by which certain substances, such as toxic chemicals or heavy metals, become more concentrated as they move up the food chain.

Examples of biomagnification:

- Mercury poisoning in predatory fish
- DDT in bird eggs
- Lead poisoning in scavenging birds
- PCBs in marine mammals
- Dioxins in dairy products
- Chlorinated hydrocarbons in top predators
- Heavy metals in seafood
- Arsenic in rice
- Pesticides in honey
- Microplastics in marine organisms

22. Ans : D

- "Forever chemicals" is a term commonly used to refer to **per- and polyfluoroalkyl substances (PFAS)**. These are synthetic chemicals that are resistant to degradation in the environment, earning them the nickname "forever chemicals." PFAS have been widely used in various industrial and consumer products due to their unique properties, such as resistance to heat, water, and oil.
- PFAS can accumulate in the environment and in the bodies of humans and animals, posing potential health risks.

23. Ans : D

- Depending on their trophic level the source of their nourishment or food organisms occupy different positions along the food chain.
- **More than one trophic level may be occupied by a single species.**
- **Only 10% of energy is transferred from one trophic level to another tropical level in the food chain.** The remaining energy is lost through the organism's metabolic activities such as heat production, respiration etc.

24. Ans : B

- The first Dugong Conservation Reserve in India was established in **Tamil Nadu**.
- Dugongs or sea cows are included in **Schedule I of the Wild Life (Protection) Act, 1972**.
- The Dugong is listed as Vulnerable on the IUCN Red List of Threatened Species
- The Dugong (Dugong dugon), are the largest herbivorous marine mammal in the world, grazing primarily on seagrass.

25. Ans : A

- World's first Fishing cat census was conducted by Chilika lake authority.
- The fishing cat is a highly elusive (difficult to find) wild cat species primarily found in Wetlands.
- In India, fishing cats are mainly found in the Sundarbans' mangrove forests, on the Himalayas' foothills along the Ganga and Brahmaputra River valleys and in the Western Ghats.
- Fishing cat is listed as **Vulnerable in the IUCN red** List and listed as Scheduled I species in Wild Life Protection Act, 1972.
- **The sambar deer is the state animal of Odisha.**

26. Ans : A

- **Sphaerotheca Varshaabhu is a newly identified frog species.**
- The name 'Sphaerotheca Varshaabhu' derives its meaning from its unique behavior of emerging from burrows with the onset of early showers, symbolizing its affinity for rain.
- It showcases behaviors and physical attributes that equip it to overcome challenges posed by urbanization.

27. Ans : A

- **Ankasamudra Bird Conservation Reserve (ABCR) is located in Hagaribommanahalli Taluk of Vijayanagara District, Karnataka, India.**
- It is located about 40 Km from Hampi, the famous UNESCO World Heritage Site. The Site is a manmade Village Irrigation Tank (reservoir) built centuries back and is spread over an area of about 98.76ha (244.04 acre) and is found close to the Ankasamudra village.
- Several thousands of gum arabic trees (Vachellia (Acacia) nilotica), locally known as Karijali, are found growing from the lakebed. The trees provide nesting and roosting habitat for a large number of large colonial waterbirds



28. Ans : B

- The Delhi High Court is considering staying a forest department 'Walkathon' event in the Asola Bhatti Wildlife Sanctuary.
- Situated in the **southern part of Delhi and extends into Faridabad and Gurugram** districts of **Haryana**.
- Forms a part of Rajasthan's Sariska Tiger Reserve to the Delhi Ridge

29. Ans : C

- Ramadevara Betta Hill is the only Vulture Sanctuary in India
- Daroji Sloth Bear Sanctuary is located in Ballari district in Karnataka. This is Asia's first sloth bear sanctuary
- Bankapura in Koppal is a dedicated wolf sanctuary spread across 332.68 hectares of reserve forest

30. Ans : C

- **Udupi – change is -25 followed by Kodagu -5.47**
- **Economic survey pg 201**

31. Ans : A

32. Ans : D

33. Ans : C

34. Ans : C

35. Ans : B

36. Ans : B

37. Ans : D

38. Ans : B

39. Ans :B

40. Ans : C

41. Ans : B



42. Ans : B

43. Ans : A

44. Ans : C

45. Ans : C

46. Ans : B

47. Ans : B

48. Ans : *Incorrect option- Grace marks given.*

49. Ans : A

50. Ans : B

51. Ans : A

52. Ans : C

53. Ans : B

54. Ans : C

55. Ans : C

56. Ans : B

57. Ans : C

58. Ans : B

59. Ans : B

60. Ans : D

61. Ans : A

- Scientists at the Central Horticultural Experiment Station (CHES) in Kodagu have developed a new variety called **'Arka Coorg Ravi'**, that will further improve coffee-based **avocado** cultivation in the district.
- The new variety will have 80% pulp and the rest seed, making the fruit profitable for farmers.
- The fruit is grown on about 500 hectares in Kodagu amidst the coffee plantations and the area of cultivation has seen a rise in recent years
- Farmers from different parts of Karnataka and also from Kerala, Tamil Nadu, Maharashtra, Andhra Pradesh, and Telangana have been purchasing avocado saplings or grafts to grow in their State

62. Ans : B

Criteria for scrapping vehicles

<ul style="list-style-type: none"> ■ Vehicles for which RC is not renewed 	following which the registered owners self-certified them as scrap
<ul style="list-style-type: none"> ■ Vehicles for which no FC has been granted 	
<ul style="list-style-type: none"> ■ Vehicles which are 15 years old and above owned by government, public sector undertakings, and other government agencies 	
<ul style="list-style-type: none"> ■ Vehicles which have been damaged due to fire, riot, natural disaster, accidents 	
	<ul style="list-style-type: none"> ■ Vehicles bought by an agency, including RVSF, in an auction for scrapping the vehicles
	<ul style="list-style-type: none"> ■ Auctioned, impounded, or abandoned vehicles by enforcement agency
	<ul style="list-style-type: none"> ■ Any other vehicle voluntarily offered to RVSF for scrapping by the owner

- All government vehicles that have run for 15 years should be scrapped. **Private vehicles that have run for 15 years and above and do not get fitness certificates** will have to be scrapped mandatorily. So not all 15 years private vehicle will be scrapped
- National single window system or by calling expression of interest, measures would be taken to set up Registered Vehicles Scrapping Facilities (RVSF) in the State, to carry out dismantling and scrapping operations.
- **RVSF will issue "certificate of deposit"** as evidence of transfer of ownership of the vehicle.
- The certificate (CoD) will be **tradeable** and be a necessary and sufficient document of the owner to avail himself of **incentives and benefits for purchase** of a new vehicle as may be declared from time to time.

63. Ans : B

- Prime Minister Narendra Modi inaugurated the India Energy Week in Bengaluru.

During the Indian Energy Week ,Prime minister launched following initiative

- A **Pilot project for the E20 fuel a blend of 20% ethanol and 80% petrol .**
- The first phase of the rollout will cover 15 cities within two years.
- Bengaluru is among the 15 cities across India that will get E20 fuel through outlets run by Indian Oil Corporation in the first phase
- As part of its sustainability and environment protection initiatives Indian Oil has also designed a patented indoor solar double burner cook-top, a hybrid solution that works on both solar and auxiliary energy sources .
- Prime minister also launched the uniforms under the **“Unbottled” initiative of Indian oil , which are made from recycled PET bottles** for IndianOil Fuel Station Attendants.

64. Ans : B

- The Karnataka Human Development Report 2022 says 10 districts in north Karnataka, have performed poorly in terms of multidimensional poverty index (MPI).
- All districts in Karnataka have recorded an improvement in the human development index (HDI).
- For the first time, the government has estimated HDI and MPI at the taluk level. **Mangaluru taluk has topped**, leaving Bengaluru South second.
- Deprivation due to poverty and malnutrition is a “major” and the “biggest” challenge, according to a new government report.

65. Ans : B

Steps taken by Karnataka government to eradicate TB:

- Intensified Tuberculosis (TB) Surveillance in Computed Tomography (CT) scan centres was step all across Karnataka.
- Line lists of the patients where CT scan suggestive of TB were collected from all the CT scan centers of the districts and all such patients identified through CT scan centres were enrolled in the NIKSHAY portal as presumptive TB patients.
- **Kshaya Mukta Gram Panchayat initiative** mainly aimed towards TB free panchayats
- TB Sollisi GP Gellasi is a community engagement campaign for improving the access, awareness , demand generation for TB services and to reduce stigma associated with TB disease.

- Kshaya Aasare initiative shall ensure access to information, free and quality services, and linkage to social welfare programs, empowering the patient for making decision to complete the treatment successfully.
- Kshaya Nivarana Andolana for prevention of TB disease transmission through active case finding.
- **STAR – Screening for Tuberculosis Using Artificial Intelligence** in Remote Radiology facilities. This AI tool works on Analog X Ray screening is well suited to be used in remote facilities and it not only detects abnormal chest X-rays, but it can identify and localizes 29 common abnormalities in addition to screen for tuberculosis

The National Strategic Plan (NSP) of the National TB Elimination Programme (NTEP) for 2017-25 emphasizes the need for the community's active participation in ending TB. KHPT is implementing '**Breaking the Barriers**' project in Bihar funded by **USAID** for migrants and the urban vulnerable population.

66. Ans : B

Why in news? Ankola's famous kari Ishadu Mango now boasts of a GI tag from the state

Mysore Agarbathi	Manufacture
Bidriware	Handicraft
Channapatna Toys & Dolls	Handicraft
Mysore Rosewood Inlay	Handicraft
Mysore Sandalwood Oil	Manufacture
Appemidi Mango	Agricultural

Belagavi - Belgaum Kunda, the popular sweet dish from the city of Belgaum. Kunda made with milk, sugar and spices is prepared by Purohit community. Belagavi came to be known as "Kunda Nagari," as kunda originated there. **kunda does not have a GI tag.**

67. Ans : D

The Election Commission of India (ECI) has, for the first time in the history of the Lok Sabha elections, extended its 'vote-from-home' facility to Persons with Disabilities (PwD) and senior citizens aged 85 and above.

Eligibility:

- **People aged 85 and above**



- **Persons with Disabilities:** The disability shall not be less than 40% of the prescribed handicap and certified by the certifying authority.
- **Mediapersons covering 'polling day activities': Carrying authorisation letters from the Election Commission**
- Workers from essential services: Services such as metros, railways and health care
- Service voters: Personnel of the armed forces posted away from their hometowns, Central Armed Police Forces personnel deployed away from home and those on poll duty.

68. Ans : A

- Karnataka government issues orders for implementation of Gruha Jyothi scheme.
- Free power supply with an upper limit of 200 units on the monthly average consumption of a household
- Who is implementing – Karnataka power department through respective ESCOMS Conditions
- Applicable **only to domestic connections**
- **Power usage of up to 10 per cent more than the average monthly usage calculated will be free for the household**
- Consumption of more than prescribed units will account for the net bill
- **Aadhaar-linked to customer IDs becomes mandatory**
- Existing power supply schemes such as Bhagya Jyothi and Kuteera Jyothi, will be merged
- If a user has one or more power connections under his name, the scheme will be applicable to only one of the connections

69. Ans : A

- Third G20 Culture Working Group (CWG) meet held in **Hampi, Karnataka.**
- The first two CWG meetings were held at Khajuraho and Bhubaneswar

70. Ans : C

- Government of Karnataka, is planning for first night safari in state at **Hampi Zoo.**
- It is only one to have safari in the entire Kalyana Karnataka
- Initially, it was only zoo in the entire North Karnataka to have tigers, lions and leopards.
- It has well-equipped wildlife rescue and rehabilitation centre, many wild bears were treated.

- The Zoo is located inside the city area no fauna was naturally found in this area.

71. Ans : A

Karnataka to launch Panchatantra 2.0 pilot soon

- Initiation : **Rural Development and Panchayat Raj Department**
- Aim: Step ahead towards further Modernization & Digital Transformation of all functions of Grama Panchayats
- Nature:
 - Single sign on solution to enable & digitize all key aspects of a Grama Panchayats
 - Ensuring appropriate linkages and integrations with other Applications and Databases to ensure a one platform for end-end operations, governance and reporting.
- Vision and Objectives
 - Enhance Impact and Reach
 - Strengthen PRIs
 - Streamline Operations
 - Measure and Improve Performance
 - Enhanced Revenue

72. Ans : A

Coffee board

- **The Coffee Board is a statutory organization constituted under Section (4) of the Coffee Act, 1942 and functions under the administrative control of the Ministry of Commerce and Industry, Government of India.**
- Head office is situated in Bangalore.
- Its duties include promotion of sale and consumption of coffee in India and abroad, conducting coffee research, financial assistance to establish small coffee growers and safeguarding working conditions for laborers.
- Board manages the surplus pool of unsold coffee

Question is asking incorrect statement

73. Ans : A

- Prime Minister Narendra Modi launched Amrit Bharata station scheme across **508 railway stations in the country**, out of which 13 stations are listed in Karnataka.
- The railway station includes Ballari, Ghatprabha, Gokak Road, Bidar, Alnavar, Gadag, Koppal, Harihar, Arsikere, Mangaluru Jn, Wadi, Kalaburagi Jn. (Gulbarga) and Shahabad



- It was introduced by **Ministry of Railways**
- Goal: development of stations on a continuous basis with a long term vision

74. Ans : B

- Health department introduced pilot contraceptive implants, injection in 4 districts(Bangalore, Mysuru, Bidar and Yadgiri) of Karnataka.
- Antara is an **injectable contraceptive** effective for birth control and sub dermal implant Implanon, a matchstick-sized will be implanted into the woman's upper arm.
- The main aim: to increase the contraceptive uptake
 - reduce maternal and infant mortality.
 - Also to reduce teenage pregnancy

75. Ans : C

- The Karnataka state government constituted **fifth state finance commission:**
- Finance commission is **headed by former MP C Narayanaswamy**, the panel will have retired IAS officer Mohamed Sanulla and retired Controller in the State Accounts Department R S Phonde as members.
- The panel is directed to submit its report by the end of February 2024.
- It is created by the 73rd and 74th Constitutional Amendments to rationalize State or sub-State-level fiscal relations in India.
- Commission is constituted under **Article 243-I** of the Constitution of India
- It is constituted every five year by the governor of a state

76. Ans : A

- Discovery of two ancient sculptures at Basrur proves existence of ancient Mylara cult in coastal region
- The recent discovery of two sculptures, resembles one belonging to 15th century A.D. and another to 17th century A.D., at Basrur, near Kundapura, Udupi
- It lead to evidence of ancient Mylara cult existence in the coastal region
- Royal hero sitting on the horse, holding a sword and a bowl in his right and left hands and Mylara and Mylaladevi sitting on an ornate horse and both of them holding swords in their right hands were found.

77. Ans: D

- The presence of a **leucistic sambar** has been documented in the **Cauvery Wildlife Sanctuary**
- This is the first recorded photographic record of a **white form of sambar** from this landscape though a white form of sambar deer was previously recorded in Bandipur Tiger Reserve.
- Leucism is a condition in which the pigmentation of an animal's skin is missing, causing white or pale skin

78. Ans : A

- Karnataka government launches Karnataka Ratna Dr Puneeth Rajkumar Hrudaya Jyothi Yojana.
- Install **emergency devices in public places** to cater to those suffering from heart attacks within the crucial response time
- **Set up hub and spoke centres across the state**, to ensure patients get immediate care.
- Those experiencing any chest pain can immediately visit the spoke centres where doctors will perform an ECG and administer Tenecteplase injections to prevent a heart attack.
- **BPL card holders will get free treatment in hubs of super specialty hospitals.**
- APL cardholders can get free treatment under our Arogya Karnataka Ayushman Bharat Health Card.
- Those who don't have these card wont get it for free!

79. Ans : A

- Zika virus detected in mosquito pool in **Chikkaballapur in Karnataka.**

80. Ans : C

GRUHA AROGYA

- Testing for **non-communicable diseases** for people aged 30 years
- First phase of screenings and drug procurement to begin in eight districts, including Ramanagara and Dakshina Kannada.
- Funded by the National Health Mission (NHM) .
- Who will do the screening: Teams of two to four people, including a community health officer (CHO), ASHA workers, and primary healthcare officers (Members of Health and Welfare Centre (HWC)).

81. Ans : C

MGNREGA Scheme

- It is an employment scheme by the Ministry of Rural Development.



- It provides at **least 100 days of guaranteed wage employment** in a financial year to every rural household whose adult members volunteer to do unskilled work.
- Eligibility: **Any Indian citizen** above the **age of 18 years and residing in a rural area** can apply to this scheme. **Not all!**
- The applicant receives guaranteed employment within 15 days from the date of application.
- Mode of Payment The wage is deposited directly in the Bank Account/Post Office Account of the applicant.
- Wages are paid within a week, or fifteen days at most. Men and Women are paid equally.
- It has been credited with having a positive impact on income per household, agricultural productivity, and production-related expenditure

82. Ans : B

- Advanced Driver Assistance System installed in 10 **BMTC buses** under pilot project
- Aim - To improve safety and prevent accidents, the Bengaluru Metropolitan Transport Corporation (BMTC)
- Through a device called 'Mobile 8 Connect'
- Installation consists of a vision sensor camera, a DMS (Driver Monitoring System) camera, a GPS unit, and an 'eye watch', all mounted on the vehicle's front windshield and interconnected

83. Ans : D

- **Karnataka State govt. to give additional ₹3.5 lakh per house under PM Awas Yojana**
- BENEFIT - While earlier beneficiaries had to pay ₹4.5 lakh under the scheme, they will now have to pay ₹1 lakh PM AWAS YOJANA
- Ministry/Department : Ministry of Housing & Urban Affairs Launched in 2015 Scheme:
- The aim of this scheme is **to construct more than two crore houses across the length and breadth of the nation – HOUSING FOR ALL**
- The target beneficiaries of the scheme would be poor and people living under EWS and LIG categories in urban establishments of the country.
- It also targets people living under MIG (middle income Group).
- **Government will provide subsidy ranging between 1 lakh to 2.30 lakh to people from above categories in order to make them secure**

**84. Ans : A**

- **BWSSB gets Climate Smart Utilities Award 2023**
- BY - International Water Association
- 2023 Second edition + Supported by African Water Association (AfWASA)
- Aims - Raise awareness of the steps being taken by water and sanitation utilities operating in challenging conditions to respond to climate change

85. Ans : A

- Justice Nilay Vipinchandra Anjaria took oath as the 34th Chief Justice of Karnataka High Court
- Post created by Article 217
- Appointed by the President in consultation with the Chief Justice of India (CJI), the Governor of the State

86. Ans : B

- The Karnataka State Road Transport Corporation will induct 100 brand new non-AC buses called Ashwamedha Classic
- Sport a new design, have wider legroom and come with several other features
- Will ply as point-to-point express vehicles - will run from various district headquarters to Bengaluru
- Features
 - Vehicle location tracker
 - Panic buttons and public address systems
 - Comply with Bharat Stage 6 norms

87. Ans : B

- The State has increased the GSDP from Rs.22.70 lakh crore in 2022-23 to Rs. 25.01 lakh crore in 2023-24 with a growth rate of 10.2% at current prices and Rs. 13.35 lakh crore to Rs. 14.23 lakh crore with a growth rate of 6.6% at constant prices during the same period.
- GDP grew by 6.6% during 2023-24 as compared to 7.3% of India at constant prices.
- During 2023-24, the share of Karnataka GSDP in All India GDP is at 8.4% as compared to 8.3 % in 2022-23.
- Karnataka's Per capita Income of Rs.3,32,926 is higher by 79% to All India Per capita Income of Rs.1,85,854 during 2023-24

88. Ans : A

- Highest share of Services in GSVA at 67% followed by Industries at 20% and Agriculture at 13% during 2023-24.
- Bangalore Urban District Gross Domestic Product is Rs. 8,59,154 crore with 37.8% contribution to State GDP followed by Dakshina Kannada with 5.5% and Belagavi with 4.0% during 2022-23.
- Kalaburgi revenue region (Ballari, Bidar, Kalaburgi, Koppal, Raichuru, Vijayanagar and Yadagiri districts), stood lowest in the per capita income of Rs.1,66,797, followed by Belagavi (Rs.1,81,911) and Mysore (Rs.3,02,060) regions during 2022-23.

89. Ans : D

- The State has proposed the fiscal deficit (2.60%) within 3% of GSDP in 2023-24 by increasing tax and non-tax revenue.
- **Total receipts have increased** from Rs.279539.58 crores in 2022-23(RE) to 324477.81 crores in 2023-24(BE), with an increase of 16.08%
- Revenue receipts have increased from Rs.212359.58 crores in 2022-23(RE) to 238409.81 crores in 2023-24(BE), with an increase of 12.27%.
- Capital receipts have increased from Rs.67180 crores in 2022-23(RE) to Rs. 86068 crores in 2023- 24(BE), with an increase of 28.12%.
- **State's Own tax revenue has increased** from Rs.154431 crores in 2022-23(RE) to Rs.175652 crores in 2023-24(BE), with an increase of 13.74%.
- **Non-tax revenue increased** from Rs.10940.99 crores in 2022-23(RE) to Rs.12500 crores in 2023- 24(BE), with an increase of about 14.25%.
- The total expenditure has increased from Rs.289653.02 crores in 2022-23(RE) to 327746.62 crore in 2023-24(BE), with an increase of about 13.15%.
- **Developmental expenditure has increased** from Rs.192601.36 crores in 2022-23(RE) to Rs.214810.12 crores in 2023-24(BE), with an increase of 11. 53%.
- The per-capita developmental expenditure has increased from Rs.26787 in 2022-23 (RE) to Rs.29306 in 2023-24 (BE), with an increase of about 9.48%
- Capital expenditure has increased from Rs.71296.95 crore in 2022-23(RE) to Rs.76814.12 crore in 2023-24(BE), with an increase of 7.74%.

90. Ans : A

- Karnataka's exports amounted to about Rs. 1267656 crores in 2022-23 which constituted about **20.50% of the Country's exports**. The share of Merchandise exports in the National exports constitutes around 6.19% and Software/ Service exports at 41 % in 2022-23.

- Karnataka State's exports in Agriculture Commodity amounted to \$2376.87 million in 2020-21 and \$2789.36 million in 2022-23 with a significant increase of 17 %

91. Ans : B

- The Prime Minister launched the second phase of Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0).
- The **Ministry of Housing and Urban Affairs (MoHUA)** is the nodal ministry for the scheme.
- It is the continuation of the AMRUT mission launched in June 2015 to ensure that every household has access to a tap with the assured supply of water and a sewerage connection.
- AMRUT 2.0 aims to provide 100% coverage of water supply to all households in around 4,700 ULBs (Urban Local Bodies).
- It also seeks to promote Atmanirbhar Bharat through encouraging Startups and Entrepreneurs (Public Private Partnership).

92. Ans : C

- The fungal disease, called Fusarium Wilt, is popularly known as the 'Panama Disease' and **afflicts banana plants.**
- For the first time, Indian scientists have brought out a biopesticide that can control the disease. This biopesticide has been made using another fungus.
- For a long time, banana cultivators have been struggling with the Panama Disease.
- This disease affects the Cavendish variety or the G9 Banana cultivar, which is the most widely grown banana in the world

93. Ans : B**NEWS - Bannerghatta Biological Park to Launch Leopard Safari to Bolster Tourism**

- **Leopard Safari Details**
- Current Leopard Population: The park has 70 leopards, with 12 to be released into a 50-acre open enclosure.
- Safety Measures: Safety barriers will be installed around the enclosure, and officials will regularly monitor the animals.
- Existing Safaris: The leopard safari will be an addition to the existing lion and tiger safaris.
- **Aquarium Projects**



- New Developments: The Zoo Authority of Karnataka has approved the construction of aquariums for both freshwater and saltwater fish.
- Location: **An aquarium will be built between the Chamarajendra Zoological Gardens and Karanji Lake in Mysuru.**
- Feasibility and Approval: A feasibility report was reviewed and approved, stressing international guidelines.
- Public-Private Partnership (PPP): The aquariums will be developed on a PPP model.
- **Additional Initiatives**
- **Vulture Conservation: The Vulture Conservation Breeding Centre at the Bannerghatta National Park will operate as a satellite center of the BBP.**
- Water Supply: The Bangalore Water Supply and Sewerage Board (BWSSB) will provide drinking water to the animals and visitors, with the pipeline network recently completed.
- Veterinary Care: The board resolved to fill veterinarian vacancies in the zoos to ensure proper care for wild animals.
- Local Veterinary Services: The Adumalleshwara Mini Zoo, Chitradurga, received post-facto approval for using local veterinarians.
- Health Benefits: Approval was given to extend health benefits to 153 personnel hired directly by the BBP.

94. Ans : C

- PMMSY - It is a flagship scheme for focused and sustainable development of fisheries sector.
- Aim - To double the income of fish farmers and fishers in the country and to bring about Blue Revolution.
- 100 e-Auto Rickshaws were handed over to the beneficiaries in Bengaluru city under PMMSY Scheme.

95. Ans : C

- Goat milk project is being established for the first time in the state at Madalapur (Kudige subcentre) in Kodagu district.

96. Ans : D

- Sasyashyamala scheme has been **announced by Education Department** in co-ordination with KFD to distribute seedlings to Schools.
- KFD intends to implement Karnataka-Strengthening Coastal Resilience and the Economy Project with financial assistance of the World Bank.



- **Green Karnataka” program focus to grow trees with the active involvement of school & college students and environmental organizations.**

97. Ans : C

- G3 level exploration in **Amareshwara Lithium Block of Raichur district** has been commenced from the Geological Survey of India (GSI) and same is reserved in favour of GSI vide gazette notification.
- Apart from this, department has given importance for Mineral exploration of many Critical and strategic minerals including Rare Earth Element (REE) with the help of KIOCL, GSI and department exploration wing.

98. Ans : B

- 22 Rural Cooperative Banks in the State comprising of the Karnataka State Cooperative Apex Bank Ltd., at the Apex Level and 21 District Central Cooperative Banks (DCCBs) at the district level. **All DCCBs have achieved mandated CRAR of 9% except Bidar (6.8%).**
- Computerisation of 5491 PACS (out of 6040) at Rs.67.09 crore.
- Establishing New M-PACS/Dairy/Fishery cooperatives in all uncovered panchayats with 10 MPACS, 144 Dairy societies and 7 Fishery societies to transform PACS by allotment of Petrol/Diesel dealership and LPG distributorship. -
- Both the RRBs in the State have been making profits with CRAR above 9%. (KVGB-10.09% & KaGB10.26%). **All the Rural Cooperative Banks (RCBs) have implemented Core Banking Solutions** and covered all the KCC accounts are issuing RuPay debit cards, offering services like RTGS/NEFT, NACH, DBT, SMS alerts etc.

99. Ans : B

Kalmeshwara Farmers Producer Company Limited in Dharwad District with around 1034 shareholders is the **only FPO to produce certified seeds in Karnataka** with a business turnover of Rs. 29 crores.

100. Ans : A

- **Gruha Lakshmi scheme** has been launched during 2023-24 for easing the **daily financial pressures and ensuring the economic empowerment of women** providing monthly Rs. 2,000/- to the female head of the family. Rs.17,500 crores was allocated for this program for 2023-24. As on

09.01.2024, 1,18,41,621 beneficiaries have been enrolled, of which 1,07,62,636 women are availing the benefit.

- **Bhagyalakshmi is a flagship programme implemented for improving the sex ratio by encouraging the birth of girl child in the BPL families.** Rs. 3,000/- per annum is deposited in the name of two children of BPL families in Sukanya Samruddhi Account scheme, up to 15 years, a total amount of Rs. 45,000/- is deposited.
- 31922 women in 2022-23 and 12774 women during 2023-24 (November) have availed **legal assistance and counselling services** like dowry and sexual harassment, family violence, rape under Santhwana scheme with an expenditure of Rs. 350 lakh.

Contact Details:

- Website: www.nammaKpsc.com
- Email: nammakpsc@gmail.com
- Phone No: +91-9632757615
- Address: 2nd Floor, 211, 5th Main Rd, Hampi Nagar, Vijayanagar, Bengaluru.
- YouTube: www.Youtube.com/nammakpscacademy



KPSC - KAS EXAM MAINS TEST SERIES

JOIN NOW

30 TESTS

English / ಕನ್ನಡ

- Online / Offline
- Detailed answers
- Evaluation by Faculty
- Discussion classes
- Value addition materials
- Mentorship

NammaKPSC Academy

under Guidance of Dr Arjun Bopanna

OUR CONTACT:

9886151564
9632757615

www.nammaKPSC.com

nammakpsc@gmail.com

BRANCHES:

Vijaynagar
Chandralayout
Hebbal