Q001: Which of the following statements is ***wrong*** regarding permanent hardness?
(A) It is due to the presence of sulfates, chlorides and nitrates of calcium and magnesium
(B) It cannot be removed by boiling
(C) It requires special methods of water softening to get removed
(D) It is also called carbonate hardness

Q002: Ultimate analysis of solid waste includes the analysis of:
(A) C, H, O, P, N (B) C, H, O, N, S (C) C, H, P, K, O (D) C, H, O, N, K

Q003: A coastal city produces municipal solid waste (MSW) with high moisture content, high organic materials, low calorific value and low inorganic materials. The most effective and sustainable option for MSW management in that city is
(A) Dumping in Sea (B) Composting (C) Incineration (D) Landfill

Q004: The lowest sound level which is considered as hazardous noise pollution is:
(A) 30 dB (B) 50 dB (C) 80 dB (D) 20 dB

Q005: In which year the EIA notification was published for the first time in India?
(A) 1981 (B) 1974 (C) 1978 (D) 1994

Q006: Which method is ***not*** used for the analysis of any gaseous pollutant in ambient air?
(A) Winkler method (B) Jacob and Hochheiser modified method
(C) Indophenol method (D) West and Gaeke method

Q007: Global warming means an increase in the average temperature of?
(A) The earth's inner core (B) The sun
(C) The earth's surface (D) The ocean water

Q008: Gulf of Mannar biosphere reserve is located in
(A) Maharashtra (B) UP (C) Tamil Nadu (D) West Bengal

Q009: Which model is suitable for assessing the impact of air pollutants on the environment?
(A) NAAQM (B) AERMOD (C) NAMP (D) CAQMS

Q010: For effective composting of municipal solid waste, initial C/N ratio of the waste should be
(A) Between 26 to 32 (B) Less than 18 (C) More than 42 (D) Equal to 47

Q011: What is the best way to reduce the noise pollution around houses?
(A) Built a noise resistant shield across the house (B) Throwing all noisy machines
(C) Planting trees around houses (D) Use of ear buds to reduce the noise

Q012: Which of the following statement(s) is/are correct regarding National Green Tribunal (NGT)?

I. The Chairperson of the NGT is a retired Judge of the Supreme Court, head quartered in New Delhi.
II. NGT Act 2010 draws inspiration from the India's constitutional provision of Article 21 - Protection of life and personal liberty, which assures the citizens of India the right to a healthy environment.
III. The NGT is mandated to make and endeavor for disposal of applications or appeals finally within 3 months of filing of the same.

(A) Only I and II (B) Only I and III (C) Only II and III (D) All I, II, and III

Q013: Which is the competent authority for notifying the EIA notification in India?
(A) Law Ministry (B) State Government (C) MoEF&CC (D) CPCB

Q014: What does the abbreviation NDIR stand for, in the category of spectrometric analyses?
(A) Non-Dispersive Infrared (B) Neo-Destructive Integrated Radiation
(C) Neo-Dispersive Integrated Radiation (D) Non-Destructive Integrated Restoration

Q015: Type 3 (polyvinyl chloride) plastic is commonly found in
(A) Shopping bags
(B) Soft drinks and water bottles
(C) Food packaging
(D) Irrigation pipes

Q016: Which of the following statements is true?
(A) Troposphere is thicker at the equator than at the poles
(B) Troposphere is thinner at the equator than at the poles
(C) Troposphere is equally thick across different parts of the world
(D) Troposphere contains the ozone layer

Q017: As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016; the occupiers of facilities may store the hazardous and other wastes for a period ***not*** exceeding:
(A) 120 days
(B) 100 days
(C) 80 days
(D) 90 days

Q018: If biomass is described by the chemical formula $C_5H_7NO_2$, what will be the units of oxygen required to oxidise one unit of biomass?
(A) 1.42
(B) 3.2
(C) 14.0
(D) 3.53

Q019: Chlorides are estimated by titration with a standard silver nitrate solution by using _____ as an indicator.
(A) Potassium dichromate
(B) Potassium chromate
(C) Potassium chloride
(D) Potassium manganate

Q020: What would have been the average temperature of Earth without greenhouse gases (in degree Celsius)?
(A) -9
(B) -19
(C) -7
(D) 0

Q021: If an industry discharges 4000 m^3/day wastewater with BOD_5 of 800 mg/L into the municipal sewer having a sewage flow rate of 20 MLD with average BOD_5 of 200 mg/L, then what will be the BOD (mg/L) of mixed effluent?
(A) 1000
(B) 500
(C) 300
(D) 600

Q022: In habitat evaluation system, HQI is
(A) Habitat quality index
(B) Habitat quantity index
(C) Habitat quality instrument
(D) Habitat quantity instrument

Q023: The plume rise mainly has the following two components:
(A) Chemical reactivity and thermal buoyancy
(B) Thermal and momentum buoyancy
(C) Wind drift and momentum buoyancy
(D) Density difference and thermal buoyancy

Q024: In COD test of sewage, organic matter is oxidized by $K_2Cr_2O_7$ in the presence of
(A) Hydrofluoric acid (HF)
(B) HNO_3
(C) HCL
(D) H_2SO_4

Q025: Which 'Indian American citizen' has been chosen by the Time Magazine as 'Kid of the year 2020'?
(A) Megha Sharma
(B) Geetanjali Rao
(C) Sunita Williams
(D) Kamala Harris

Q026: Plant protection code is a set of guidelines for regulating chemical inputs in:
(A) Vegetables
(B) Fruits
(C) Cereals
(D) Tea

Q027: Which of these IS Codes refers to 'Packaged Drinking Water (other than packaged natural mineral water)'?
(A) IS-14543
(B) IS-15302
(C) IS-10500
(D) IS-13428

Q028: The upward vertical rise prevails in which of the following plumes?
(A) Looping (B) Fanning (C) Neutral (D) Trapping

Q029: Which method is used to measure the color of water?
(A) Hydrometer analysis (B) Tintometer method
(C) Gravimetric analysis (D) Chromatography

Q030: On 20th January 2021, Joe Biden took oath as _____ President of the United States of America.
(A) 46th (B) 42nd (C) 47th (D) 45th

Q031: Diameter of pollen grains in the air range between
(A) 1-10 µm (B) 0.001-0.1 µm (C) 0.1-1.0 µm (D) 10-100 µm

Q032: Revised National Ambient Air Quality Standards (MoEF&CC notification G.S.R 826(E), dated 16.11.2009) specify two methods for the analysis of Nitrogen Dioxide (NO_2) µg/m^3. One of them is known as Modified Jacobs-Hochheiser (Na-Arsenite) method. What is the other method specified in NAAQS-2009 standards?
(A) Atomic Absorption Spectroscopy (B) Gas Liquid Chromatography
(C) Chemiluminescence (D) Ion chromatography

Q033: Which state is considered as the cleanest state as per the Swachh Survekshan of 2020?
(A) Kerala (B) Chhattisgarh (C) Maharashtra (D) Haryana

Q034: The most common landfill sealant used for the control of gas and leachate movement is:
(A) Compacted Clay (B) Synthetic chemicals
(C) Inorganic chemicals (D) Asphalt

Q035: Who did Rana Sanga defeat in the battle of Khatoli?
(A) Akbar (B) Ibrahim Lodhi (C) Sikandar Lodhi (D) Babur

Q036: As per CPCB, the biomedical waste, if any, generated from quarantine centers/camps, should be collected separately in ___ bags.
(A) Blue (B) Yellow (C) Red (D) Black

Q037: What is the major disadvantage of incineration?
(A) It causes several air pollution issues (B) It requires microorganisms
(C) Large volume reduction of the waste (D) Heat generation

Q038: Dhebar Lake (also known as Jaisamand Lake) is the second largest artificial lake in the world and first in Asia. In which district of Rajasthan is it situated?
(A) Jodhpur (B) Udaipur (C) Kota (D) Ajmer

Q039: What is the inertial method used to measure size of aerosol particles?
(A) Light scattering method (B) Particle acceleration method
(C) Laser based sensor method (D) Electrical mobility method

Q040: National Board for Wildlife is a "Statutory Organization" constituted under the Wildlife Protection Act, 1972. Who among the following chairs the National Board for Wildlife (NBWL) in India?
(A) A renowned environmentalist or academician of the country
(B) Minister of Environment, Forest and Climate Change
(C) Prime Minister
(D) Minister of Environment and Forest

Q041: What is the next number in the sequence 4,6,8,9,12,12,16,15,20,___?
(A) 5 (B) 33 (C) 18 (D) 21

Q042: In which district is Haldi Ghati located?
(A) Rajsamand (B) Pratapgarh (C) Kota (D) Chittorgarh

Q043: Coning plume occurs under which conditions?
(A) Super adiabatic (B) Neutral (C) Sub adiabatic (D) Inversion

Q044: The 24-hour National Ambient Air Quality Standard for $PM_{2.5}$ in India is (in $\mu gm/m^3$):
(A) 75 (B) 60 (C) 50 (D) 20

Q045: According to the current EIA Notification in India, how many stages are involved in granting environmental clearance?
(A) 10 (B) 7 (C) 4 (D) 3

Q046: Which of the following cations does ***not*** cause hardness?
(A) Sr^{2+} (B) Mn^{2+} (C) Na^{+} (D) Ca^{2+}

Q047: Which is the highest mountain peak of Rajasthan?
(A) Bairath (B) Ser (C) Achalgarh (D) Guru Shikhar

Q048: Which of the following river flows its entire course within the state of Rajasthan?
(A) Luni (B) Kali Sindh (C) Banas (D) Parbati

Q049: What is the most expensive component of solid waste handling?
(A) Storage (B) Collection (C) Treatment (D) Separation

Q050: Which is the major anthropogenic source for sulphur dioxide?
(A) Coal and crude oil combustion (B) Burning of petrol
(C) Sewage treatment process (D) Volcanic eruptions

Q051: Air pollution from automobiles can be controlled by fitting:
(A) Cyclone separator (B) Electrostatic precipitator
(C) Wet scrubber (D) Catalytic converter

Q052: In a waste water sample Total Kjeldahl Nitrogen (TKN) represents
(A) Total Organic Nitrogen (B) Total Organic Nitrogen plus Total Ammonia
(C) Nitrate plus Nitrite (D) Total Inorganic Nitrogen

Q053: What will be the value of total alkalinity (mg/L), if a 50 mL of sample required 5 mL N/50 sulfuric acid to reach the phenolphthalein end point, and total of 15 mL to reach the methyl orange end point?
(A) 75 (B) 100 (C) 300 (D) 250

Q054: Which of the following is the most desirable?
(A) Separation at central facility at landfill (B) Separation at transfer station
(C) Separation at source (D) Separation at intermediate station or dhalao

Q055: What could comprise an Environmental Impact Statement under the current EIA notification?
(A) A report of Environmental Impact Assessment
(B) A report of description of site conditions
(C) A report of description of project details
(D) A report of description baseline data at site

Q056: In which year was Ajmer merged into Rajasthan?
(A) 1947 (B) 1960 (C) 1950 (D) 1956

Q057: Pressure changes:
(A) More rapidly in the vertical direction over land than over the ocean
(B) At the same rate in the horizontal and vertical directions
(C) More rapidly in the vertical direction than in the horizontal
(D) More rapidly in the horizontal direction than in the vertical

Q058: As per 'Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, the import of hazardous and other wastes from any country shall ***not*** be permitted for
(A) Utilization including co-processing (B) Recovery and reuse
(C) Recycling (D) Safe disposal in engineered landfill

Q059: For domestic wastewater 5-day BOD value represents ____ percent of the total BOD
(A) 10-20 (B) 30-40 (C) 70-80 (D) 100

Q060: The Total Dissolved Solids (TDS) ***cannot*** be removed by which of the following methods?
(A) Distillation (B) Ion Exchange (C) Reverse Osmosis (D) Filtration

Q061: The ideal gas law is stated; PV=nRT. For n equal to 0.5, temperature of 273 Kelvin and pressure of 1 atm, the volume occupied by a gas is:
(A) 44.8 liter (B) 11.2 liter (C) 0.224 liter (D) 22.4 liter

Q062: The Air (Prevention and Control of Pollution) Act, an Act of the Parliament of India to control and prevent air pollution was passed in the year.
(A) 1971 (B) 1991 (C) 1998 (D) 1981

Q063: As per the Government of Rajasthan web portal, Rajasthan is also known as Land of ____.
(A) Kingdom (B) Desert (C) Camels (D) Snakes

Q064: The closest representation of average composition of municipal solid waste in Indian cities is
(A) 20% organic, 40% inert and 40 % recyclable (B) 30% organic, 10% inert and 60 % recyclable
(C) 10% organic, 50% inert and 40 % recyclable (D) 40% organic, 40% inert and 20 % recyclable

Q065: What is the process of scrutiny, by the competent authority appointed under the current EIA notification, of the application and other documents submitted by the applicant for grant of environmental clearance called?
(A) Appraisal (B) Assessment
(C) Monitoring Baseline (D) Prediction

Q066: What is the technical term for combating adverse impacts of the project?
(A) Evaluation (B) Prediction (C) Documentation (D) Mitigation

Q067: Which Indian Tiger reserve has won the UNDP's TX2 global award for doubling tiger population?
(A) Pilibhit Tiger Reserve (B) Bandipur Tiger Reserve
(C) Corbett Tiger Reserve (D) Kanha Tiger Reserve

Q068: Which district of Rajasthan is known for mica mixed hematite iron ore?
(A) Bhilwara (B) Jaipur (C) Kota (D) Jodhpur

Q069: A postman walked 20 m straight from his office, turned right and walked 10 m. Then he turns left and walks 10 m and then turns right and walks a further 20 m, all in straight lines. He again turns right and walks a further 70 m. How far is he from his office?
(A) 100 m (B) 40 m (C) 35 m (D) 50 m

Q070: Which of the following sequences is most preferred in waste management?
(A) Segregation -> Treatment -> Minimization -> Reuse/Recovery -> Disposal
(B) Segregation -> Minimization -> Treatment -> Reuse/Recovery -> Disposal
(C) Prevention -> Segregation -> Reuse/Recovery -> Treatment -> Disposal
(D) Reuse/Recovery -> Prevention -> Treatment -> Segregation -> Disposal

Q071: When light is passed through a suspension, its intensity decreases due to
(A) Absorption only
(B) Both scattering and diffraction
(C) Both diffraction and absorption
(D) Both scattering and absorption

Q072: How many individuals have won the Nobel Prize more than once?
(A) 9 (B) 4 (C) 7 (D) 2

Q073: What was the theme of World Environment Day 2020?
(A) Beat Air Pollution
(B) Time for Nature
(C) Go Wild for Life
(D) Beat Plastic Pollution

Q074: Select the correctly spelt word from the following.
(A) Elemantry (B) Elimantry (C) Elimentry (D) Elementary

Q075: Which of the following pollutants is responsible for acid rain?
(A) Methane (B) Particulates (C) Oxides of Sulphur (D) Carbon monoxide

Q076: If RAIN is written as 8$%6 and MORE is written as 7#8@, REMAIN will be written as:
(A) #@7$68 (B) 8@7$%6 (C) @678#$ (D) %6$7#8

Q077: The following district of Rajasthan does ***not*** come under 'Hadauti region'
(A) Baran (B) Bundi (C) Pali (D) Kota

Q078: Source segregation and storage of the waste generated in separate streams is the responsibility of
(A) Operators of the solid waste processing and treatment facilities
(B) Individual waste generator
(C) Waste pickers and waste collectors
(D) Local civic authorities

Q079: Which one of the following is ***not*** a correct statement about vermi-composting?
(A) During the passage through the worm's alimentary canal, the organic matter is converted to a simpler humus rich material due to the action of the enzymatic secretions and bacteria
(B) Most suitable species for vermi-composting are *Eisenia fetida* and *Eudrilus eugeniae*
(C) Only surface-dwelling earthworms are useful composters, the deep burrowing type are not preferred
(D) Only deep- burrowing earthworms are useful composters, the surface-dwelling type are not preferred

Q080: What is a high pressure area with sinking air also known as?
(A) Anti-cyclone (B) Eddy zone (C) Richardson zone (D) Cyclone

Q081: Which of the following is ***not*** used in control of air pollution?
(A) Cyclone (B) Settling chamber (C) ETP (D) ESP

Q082: Which of these is ***not*** a primary pollutant?
(A) Carbon dioxide
(B) Sulfur dioxide
(C) Carbon monoxide
(D) Ground level ozone

Q083: Nitrification is conversion of ___ to ____
(A) Nitrate, Nitrogen Gas
(B) Nitrite, Ammonia
(C) Ammonia, Nitrogen Gas
(D) Ammonia, Nitrate

Q084: A city with tropical and humid weather produces waste with high calorific value. Which of the following options is best suited for the city?
(A) Landfilling (B) Biomethanation (C) Waste to energy (D) Composting

Q085: Sludge retention time of conventional activated sludge process is
(A) 50-60 days (B) 5-15 days (C) 1-2 days (D) 20-30 days

Q086: Which one of the following is ***not*** a fossil fuel?
(A) Coal (B) Petrol (C) Uranium (D) Natural gas

Q087: Of the following technical options in plastic waste reuse/recycle, which one has witnessed more success in India?
(A) Pyrolysis (B) Bitumen Roads (C) Incineration (D) Landfilling

Q088: Milk, detergent and carry bags/containers come under which category of plastic?
(A) HDPE (B) PET (C) PVC (D) LDPE

Q089: Gas leaked in Bhopal tragedy was:
(A) Ethyl isocyanate (B) Methyl isocyanate
(C) Potassium isothoiocynate (D) Sodium isothiocyanate

Q090: What is the new-born mortality rate of India, as per the Sample Registration System (SRS), 2018?
(A) 20 per 1,000 live births (B) 15 per 1,000 live births
(C) 18 per 1,000 live births (D) 32 per 1,000 live births

Q091: Bani Thani is painted by:
(A) M F Hussain (B) Samant Singh (C) Nihal Chand (D) Amrita Shergil

Q092: Which of the following should be ***avoided*** in hilly areas?
(A) The material segregation and recovery facility
(B) Composting facility for biodegradable waste
(C) Transfer station to collect residual waste from the processing facility and inert waste
(D) Construction of engineered municipal solid waste disposal landfill

Q093: At what concentration (in ppm), is nitrogen present in the atmosphere?
(A) 7,80,840 (B) 9,00,000 (C) 78,084 (D) 3,90,420

Q094: Which of the following is ***not*** a suspended growth treatment system?
(A) Activated Sludge Process (B) Sequencing Batch Reactor
(C) Membrane Bio-Reactor (D) Trickling Filter

Q095: The 'Sendai Framework" is related to:
(A) Ozone depletion (B) Global warming
(C) Disaster management (D) Biodiversity conservation

Q096: In Environmental Impact Assessment, the full form of CEQ is
(A) Center for Educational Quality (B) Council on Environmental Quality
(C) Centre for Environmental Quality (D) Council on Educational Quality

Q097: In India, which informal sector plays crucial rule in following solid waste management functions?
(A) Collection (B) Segregation (C) Recycling (D) Recovering

Q098: When wastewater is discharged in a river, mixing of wastewater and river water takes place and Dissolved Oxygen (DO) in river water starts depleting. Who for the first time proposed the method for prediction of the minimum DO concentration and the location where it occurs using DO-BOD coupled reactions?
(A) O'Connor-Dobbins (B) Owens-Gibbs (C) Streeter-Phelps (D) Pasquill-Gifford

Q099: Which of the following is the nodal agency in the country for the United Nations Environment Programme (UNEP)?
(A) Ministry of Environment, Forest and Climate Change
(B) Ministry of Environment Protection and Conservation
(C) National Board for Wildlife, Afforestation and Eco-Development
(D) Central Pollution Control Board

Q100: Which of the following indicates the correct order of the principal layers of the earth's atmosphere from top to bottom?
(A) Exosphere - Mesosphere - Thermosphere - Stratosphere - Troposphere
(B) Troposphere - Stratosphere - Mesosphere - Thermosphere - Exosphere
(C) Thermosphere - Stratosphere - Troposphere - Mesosphere - Exosphere
(D) Exosphere - Thermosphere - Mesosphere - Stratosphere - Troposphere

Q101: Which one of the following is a measurement unit of turbidity?
(A) CTU (B) NTU (C) KTU (D) FTU

Q102: Which Wetlands of India are registered under Montreux Record?
(A) Loktak Lake and Chilka lake (B) Chilka Lake and Keoladeo National Park
(C) Ashtmudi and Keoladeo National park (D) Keoladeo National Park and Loktak lake

Q103: Most often, wastewater treatment plants are based on Activated Sludge Process (ASP). There are several modifications proposed in the process. Which of the following is ***not*** a modification of ASP?
(A) Contact Stabilization (B) Extended Aeration
(C) Upflow Anaerobic Sludge Blanket (D) Sequencing Batch Reactor

Q104: The sound pressure is the force (N) of a sound on a surface area (m^2) perpendicular to the direction of the sound. The SI-unit for the Sound Pressure is N/m^2 or Pa. The Sound Pressure Level in decibel can be expressed as more conveniently as $L_p = 20 \log (p / p_{ref})$, where L_p = sound pressure level (dB), p = sound pressure (Pa), p_{ref} = reference sound pressure (Pa). What is the value of p_{ref} in the above equation in Pa?
(A) 10^{-12} (B) $2x10^{-12}$ (C) 10^{-5} (D) $2x10^{-5}$

Q105: Which one of the following is applicable for controlling transboundary movement of Hazardous Wastes?
(A) Basel Convention on Transboundary Movement of Hazardous Wastes
(B) Stockholm Treaty on Import and Export of Hazardous Wastes and Substance
(C) Kyoto Treaty on Import and Export of Hazardous Wastes and Substance
(D) Rotterdam Protocol on Transboundary Movement of Hazardous Wastes

Q106: The cations and anions must balance in any sample of water. Common ions with their approximate equivalent weights are Ca^{2+} [20], Mg^{2+} [24], Na^{+} [23], K^{+} [39] and HCO_3^{-} [61], SO_4^{2-} [48], Cl^{-} [35], NO_3^{-} [62]. Criterion for acceptance of correctness of analysis is that % difference in ion sums should not exceed 10%. If the analysis shows the concentration of various ions as, calcium=70 mg/L, magnesium=18 mg/L, sodium=23.0 mg/L, potassium=3.9 mg/L, bicarbonate=183.0 mg/L, sulfate=72.0 mg/L, chloride=35.0 mg/L, nitrate=6.2 mg/L then which of the following can be said about correctness of analysis?
(A) Accept anions and reanalyse cations (B) Reanalyse both cations and anions
(C) Accept cations and reanalyse anions (D) Accept as correct analysis

Q107: Which of the following removes both gaseous and particulate contaminants?
(A) Dynamic precipitator (B) Venturi scrubber
(C) Gravitational settling chamber (D) Bag filters

Q108: For the formation of photochemical smog, we need
(A) Hydrocarbons + SO_x + sunlight (B) SO_x + NO_x + sunlight
(C) SPM + O_3 + sunlight (D) Hydrocarbons + nitric oxide+ sunlight

Q109: Who became the first bowler in Cricket to take 500 T20 wickets?
(A) Ishant Sharma (B) Dwayne Bravo (C) Md. Shami (D) Andre Russel

Q110: Which one of the following is an appropriate leachate management system for a compost plant used for horticulture waste?
(A) It should be concentrated using multi effect evaporators before disposal
(B) It should be used for irrigation purpose
(C) It should be disposed of in nearby water body after pH adjustment
(D) It should be re-circulated in the compost plant for moisture management

Q111: Ajay Thakur received Padma Shree in 2019 for
(A) Kabaddi (B) Kho Kho (C) Table Tennis (D) Basket Ball

Q112: Assume that the BOD deoxygenation follows a first order reaction, [$Y = L_u (1 - e^{-kt})$], rearranging it can be written as [$\{(L_u - Y)/L_u\} = e^{-kt}$], where L_u is ultimate BOD, Y is the amount of BOD satisfied at any time, t, and k is rate constant. If 3-day BOD of a wastewater is 150 mg/L and 6-day BOD is 200 mg/L, what will be the ultimate BOD?
(A) 368 (B) 600 (C) 225 (D) 450

Q113: As per the biomedical waste (Management and Handling Rules, 2016), the human and animal anatomical waste should be treated and disposed using which method?
(A) Chemical treatment (B) Autoclaving
(C) Microwaving (D) Incineration/deep burial

Q114: Which of the following is included in 3Ts of combustion?
(A) Turbulence, Technology, Time (B) Temperature, Time, Turbulence
(C) Torque, Turbulence, Time (D) Torque, Temperature, Time

Q115: Which of the following is the state tree of Rajasthan?
(A) Neem (B) Mango (C) Khejari (D) Babool

Q116: Which of the following statements is ***false***?
(A) Frost is likely if the air is cooled to its (below freezing) dew point.
(B) Adding water vapor to the air, increases the dew point temperature
(C) Water evaporates when air is cooled to its dew point.
(D) A high value of relative humidity implies a low temperature-dew point spread.

Q117: If in a particulate control system $PM_{2.5}$ to PM_{10} ratio jumped from 0.5 to 0.7, it implies that:
(A) A larger fraction of coarse particles is removed
(B) The ratio is not suggestive of fraction removed
(C) Both PM_{10} and $PM_{2.5}$ are removed equally effectively
(D) A larger fraction of fine particles is removed

Q118: How does atmospheric pressure vary with increase in altitude?
(A) It decreases linearly
(B) It increases linearly
(C) It increases till stratosphere and then starts decreasing exponentially
(D) It decreases exponentially

Q119: As per the 'State of India's Birds Report 2020', which bird species showed a big increase in population?
(A) Indian Vulture
(B) Curlew Sandpiper
(C) Great Indian Bustard
(D) Indian Peacock

Q120: Which Indian minister delivered keynote address in Sri Lanka Economic Summit (SLES) 2020?
(A) S Jai Shankar (B) Nirmala Sitharaman (C) Piyush Goyal (D) Nitin Gadkari

Q121: Which of the following pollutants is the major contributor to photochemical smog?
(A) Hydroperoxides (B) Peroxynitrates (C) Nitrogen dioxide (D) Ozone

Q122: What is the value of atmospheric dry adiabatic lapse rate in Kelvin per km?
(A) 283 (B) 10 (C) 274 (D) 1

Q123: The formation of ozone in troposphere depends on solar radiation and concentrations of
(A) NO_2 and NO
(B) NO_2 and Volatile organic compounds
(C) HNO_3 and Volatile organic compounds
(D) N_2O_5 and Volatile organic compounds

Q124: The activated sludge process consists of returning a fraction of the
(A) Sludge leaving the primary clarifier
(B) Effluent leaving primary clarifier
(C) Sludge leaving the secondary clarifier
(D) Effluent leaving secondary clarifier

Q125: For estimating BOD of a sewage sample in laboratory, 1% solution of the sewage sample was prepared, which was incubated for 5 days at 20°C. After 5 days, if reduction in the dissolved oxygen was 3 mg/L, what is the value of BOD of the sample?
(A) 300 mg/L (B) 500 mg/L (C) 200 mg/L (D) 150 mg/L

Q126: What holds a planet's atmosphere close to its surface?
(A) Moisture (B) Radiation (C) Gravity (D) Pressure

Q127: In a conventional water treatment plant, which type of filter is commonly provided?
(A) Pressure sand filter
(B) Activated carbon filter
(C) Rapid sand gravity filter
(D) Slow sand filter

Q128: As per BIS 10500:2012, the limit of nitrates in drinking water as nitrate (as NO_3) is 45 mg/L. What will be the value if nitrate is reported as Nitrate-N?
(A) 10 mg/L (B) 15 mg/L (C) 4.5 mg/L (D) 45 mg/L

Q129: What is the major objection to the use of municipal sewage sludge as a fertilizer?
(A) Organic content (B) Phosphates (C) Potash (D) Heavy metals

Q130: To determine the heat of solution of NaOH, following set of procedures was used A) Read the initial temperature of water, B) Read the final temperature of water, C) Pour the water into a beaker, D) Stir the mixture, E) Add the sodium hydroxide. What is the correct order of procedures for making this determination?
(A) C - A - E - D - B
(B) A - C - E - B - D
(C) E - D - C - A - B
(D) C - E - D - A - B

Q131: Wind-rose diagram is a graphical representation of which meteorological parameters?
(A) Wind direction, wind speed and calm percentage
(B) Wind direction and its duration in any direction
(C) Wind speed and percentage of calm duration
(D) Temperature, relative humidity, and calm duration

Q132: What is the main source of vehicular noise?
(A) Low pressure
(B) Fuel engine
(C) Movement of the vehicle's tyres on the pavement
(D) High speed

Q133: The Michaelis Menten kinetic equation, $V = (V_{max}[S]) / (K_m + [S])$, describes the enzyme kinetics involving a substrate, S. V is the rate of enzyme reaction (velocity), V_{max} is maximum rate of reaction, and K_m is half saturation coefficient. Which of the following pairs correctly represents the order of equation respectively, when the substrate concentration >> K_m and when substrate concentration is << K_m?
(A) 0, 0 (B) 1, 0 (C) 0, 1 (D) 1, 1

Q134: What is the concentration of H^+ ions (in moles/L) in water if the pOH value is 6?
(A) 10^{-8} (B) 10^{-6} (C) 10^{-9} (D) 10^{-7}

Q135: Peroxyacyl nitrate (PAN), a pollutant in atmosphere
(A) Decomposes into poly aromatic hydrocarbon
(B) Decomposes into peroxybenzoyl nitrate (PBN)
(C) Decomposes into nitric acid
(D) Decomposes into peroxyethanoyl radicals and nitrogen dioxide

Q136: As per the Plastic Waste Management Rules 2016; the minimum thickness of plastic carry bags has been increased from 40 microns to:
(A) 50 microns (B) 60 microns (C) 70 microns (D) 80 microns

Q137: Which is the smallest fraction among the following?
(A) 7/9 (B) 4/5 (C) 8/11 (D) 9/13

Q138: Chandrabhaga beach, which was the venue of the International Sand Art Festival 2020, is located in which state?
(A) Tamil Nadu (B) Odisha (C) Gujarat (D) Kerala

Q139: Bolo app is developed by _____ to help _____:
(A) Google India; children to improve their English and Hindi reading skills
(B) Microsoft; people to understand all Indian languages
(C) Microsoft; people to prepare their speeches
(D) Facebook; children to speak better Hindi

Q140: Balance the following chemical oxidation-reduction reaction:
$a\ Cl^- + b\ Cr_2O_7^{2-} + c\ H^+ \rightarrow d\ Cl_2 + e\ Cr^{3+} + f\ H_2O$
(A) a=4, b=3, c=12, d=2, e=3, f=6 (B) a=6, b=1, c=14, d=3, e=2, f=7
(C) a=2, b=3, c=12, d=1, e=6, f=6 (D) a=6, b=2, c=16, d=6, e=2, f=8

Q141: I am three times as old as my son. Five years later I shall be two and a half times as old as my son. What is my age?
(A) 45 (B) 54 (C) 27 (D) 33

Q142: What could be inferred from the following samples concerning the relative ease of biodegradability, Sample A (BOD_5 / COD = 24 / 30) and Sample B (BOD_5 / COD = 10 / 50)?
(A) Both are non-biodegradable (B) Sample A is easily biodegradable
(C) Both samples are easily biodegraded (D) Sample B is easily biodegradable

Q143: For yellow color, AQI ranges between
(A) 51-100 (B) 201-300 (C) 151-200 (D) 0-50

Q144: The National Green Tribunal has directed which state to prepare an action plan for 14 proposed elephant corridors?
(A) Odisha (B) Kerala (C) Maharashtra (D) Tamil Nadu

Q145: Which of the following wastewater treatment technologies can achieve effluent BOD less than 5 mg/L?
(A) Activated Sludge Process (B) Anaerobic Upflow Sludge Blanket
(C) Trickling Filter (D) Membrane Bio-Rector

Q146: The Forest (Conservation) Act was enacted in the year
(A) 1927 (B) 1974 (C) 1980 (D) 1986

Q147: What does the term obliquity indicate?
(A) Earth's axial tilt of 23.5 degrees
(B) Analysis of ocean currents
(C) Alignment of the Earth's internal magnetic field
(D) Pressure variation over different seasons

Q148: As per the EIA notification, 2006, the full form of SEAC is
(A) State Environmental Affairs Council (B) State level Environmental Appraisal Committee
(C) State Environmental and Academic Council (D) State Education and Academic Council

Q149: Who built the Mehrangarh Fort in around 1459 at Jodhpur?
(A) Maharaja Sawai Man Singh (B) Rao Jodha
(C) Rana Sanga (D) Maharana Pratap

Q150: Which harmful compounds/gases are predominately emitted due to incomplete burning of petrol in vehicles?
(A) Carbon monoxide and hydrocarbons (B) Methane and ozone
(C) Ozone and Carbon monoxide (D) Nitrogen and Carbon monoxide