

WBCS (Main) Exam Paper – IV Practice Set

Answers with Explanation

1. (d) It produces fumes of ammonia and hydrochloric acid. শ্রুতিভঙ্গি
2. (d) Viviparous plants produce seeds that germinate before they detach from the parent plant.
3. (c) Deep black soil is productive due to high proportion of clay and humus. The organic matter present in the soil is contributed by the death and decay of living organisms. These are the richest in nutrients and therefore these soils are the most fertile.
4. (a) Electronic motors draw more current which is inversely proportional to the voltage, therefore, more heat

$$H = I^2 R t$$
 is generated.
5. (d) A 'breath test' used by traffic police to check drunken driving uses Potassium dichromate-sulphuric acid.
6. (a) In printing, DPI (Dots Per Inch) refers to the output resolution of a printer or imagesetter, and PPI (Pixels Per Inch) refers to the input resolution of a photograph or image. DPI refers to the physical dot density of an image when it is reproduced as a real physical entity, for example printed onto paper.
7. (d) Environmental degradation means lowering of environmental qualities, adverse changes by human activities and ecological imbalance.
8. (a) A steam engine converts the heat energy produced by coal into kinetic energy and this produces electricity which further lights the lamp and converts electricity into heat and light.
9. (b) King Cobra is the only snake in the world that builds a nest. The female snake, which is about 13 feet long, builds a nest to lay its eggs.
10. (b) শ্রুতিভঙ্গি
11. (b) Sodium azide is used in airbags, used for safety of car driver. Under room temperature, Sodium azide is a stable compound. However when heated by an impulse it disintegrates to produce sodium and nitrogen. It only takes about 50-100 grams sodium azide to produce enough nitrogen gas to fill a normal air bag for driver.
12. (b) There is a difference in acceleration due to gravity at equator and poles. The gravity is more on the poles due to two factors :
 1. The effect due to the angular rotation of earth is minimum or zero at poles.
 2. The earth is flat in towards the poles so g is more at poles. শ্রুতিভঙ্গি
13. (b) *Entamoeba histolytica* causes amoebiasis, the symptoms of which are chronic diarrhoea to fulminant dysentery. *Trypanosoma gambiense* causes sleeping sickness in which there are fevers, joint pains, numbness, coordination and trouble in sleeping. Syphilis is a STD, caused by *Treponema pallidum*, a spirochete bacterium, *Pasteurella pestis* causes Bubonic plague, in which the lymph nodes are swollen especially in armpits and groin.
14. (d) Lead oxide deposit is harmful to engine life. Thus a small amount of ethylene dibromide is added to petrol for simultaneous removal of lead oxide.
15. (c) Radar is a system that uses radio waves for object deflection. It determines the range, altitude, direction, or speed of objects.
16. (d) When alpha, beta and gamma rays carry same momentum, then all have same wavelength as

$$\lambda = \frac{h}{p}$$
 শ্রুতিভঙ্গি
 where λ = wavelength, p = momentum and h = Planck's constant ($= 6.62 \times 10^{-34} \text{Js}$).
17. (a) Planktons are passively floating in upper water, nektons are actively swimming while benthos lead sedentary life upon the sea bottom. Planktons are producers and are present in large number.
18. (d) Revolver was discovered by Colt. Dynamite was discovered by Alfred Nobel. Law of Cooling was discovered by Newton and Law of Pressure by Pascal.
19. (d) Three types of cells are found in pancreas. α -cells, β -cells, δ -cells. α -cells secrete peptide hormone glucagon. β -cells synthesise and secrete the endocrine hormone, insulin, the hyposecretion of which leads to abnormal metabolism of body's sugar and causes Diabetes mellitus. δ -cells produce somatostatin.
20. (a) Indian Space Research Organisation (ISRO) is headquartered in Bengaluru. The Inter-University Centre for Astronomy and Astrophysics (IUCAA) is located in Pune, India. শ্রুতিভঙ্গি

- Inter-University Accelerator Centre (IUAC) is an autonomous research facility of University Grants Commission which is based in New Delhi. Vikram Sarabhai Space Centre (VSSC) is a major space research centre of the Indian Space Research Organisation, focusing on rocket and space vehicles, is located in Thiruvananthapuram, Kerala. শ্রীচিড়াক্স
21. (c) Radium was discovered in 1898 by Madame Curie from pitchblende a material that contains uranium.
22. (b) Acupuncture is the stimulation of specific acupuncture points along the skin of the body using thin needles.
23. (c) The conservation of elements of biodiversity out of the context of their natural habitats is referred to as Ex-situ conservation. Zoos, botanical gardens and seed banks are all example of Ex-situ conservation.
24. (c) Vitamin H, more commonly known as biotin, is part of the B complex group of vitamins.
25. (c) The intersected area of magenta and yellow-coloured circles will have red colour. The intersected area of cyan and magenta coloured circles will have blue colour.
Magenta = Red + Blue শ্রীচিড়াক্স
Cyan = Blue + Green
26. (a) Manas National Park or Manas Wildlife Sanctuary is a national park, UNESCO Natural World Heritage site, a Project Tiger reserve, an elephant reserve and a biosphere reserve in Assam, India.
Dihang-Dibang or Dehang-Debang is a biosphere reserve constituted in 1998. It is in the Indian state of Arunachal Pradesh.
Nokrek National Park, the core area of Nokrek Biosphere Reserve, is a national park located approximately 2 km from Tura Peak in West Garo Hills district of Meghalaya, India.
Simlipal National Park is a national park and a tiger reserve in the Mayurbhanj district in the Indian state of Odisha.
27. (a) *n*-heptane has octane number of 0.0
2-methyl heptane→21.7
Iso-octane→100.00 শ্রীচিড়াক্স
2, 2-dimethyl hexane→72.5
28. (d) Akash is a medium-range mobile surface-to-air missile. Nag is an anti-tank missile by DRDO. Pinaka is a multiple rocket launcher produced for Indian Army by DRDO while Trishul is a missile system of a short range surface to-air missile as a part of the Integrated Guided Missile Development Program. শ্রীচিড়াক্স
29. (b) The bag had the same velocity as the plane when it was dropped. Newton's First Law says that "An object in motion tends to stay in motion, at the same velocity, in a straight line unless acted on by an outside force". There only outside force acting on the bag was its weight — that force is straight down. The horizontal velocity that the plane gave the bag continued (as Newton said it would), so as it fell, horizontally it kept pace with the plane.
30. (d) In Molecular biology, DNA replication is the biological process of producing two identical replicas of DNA from one original DNA molecule. DNA replication occurs in all living organisms acting as the basis for biological inheritance. The cell possesses the distinctive property of division, which makes replication of DNA essential. DNA replication occurs during the S-stage of interphase.
31. (b) Henry's Law states that:
At constant temperature, the concentration of a gas in solution is proportional to the partial pressure of the gas above the solution.
Henry's Law can be written as a relationship:
 $c \propto P$
where, শ্রীচিড়াক্স
c = concentration of gas in solution
P = partial pressure in the gas phase
Henry's Law can also be written as an equation:
 $P = Kc$
where K = the constant of proportionality = Henry's Law constant
To determine the molar solubility of a gas:
 $c = \frac{1}{K} \times P$ শ্রীচিড়াক্স
- where, 1/K is the inverse of Henry's Law constant, c is the concentration of the gas in mol L⁻¹ (molarity), P is the partial pressure of the gas.
32. (d) Panchromatic film is sensitive to the complete range of the visible spectrum, so black and white movies made with it had colours rendered more faithfully as tonal shades of grey than movies made with blue-sensitive or orthochromatic film.
33. (a) Propane has a boiling point of -44° F (-42°C) at atmospheric pressure. But household propane is not usually kept in a liquid state by a low

temperature. Instead, high pressure is used. In order to keep propane a liquid at room temperature (70° F or 21° C), it has to be held in a tank at a pressure of about 850 kPa.

34. (b) One molecule of a tribasic acid gives three H⁺ ions on dissociation. In phosphoric acid (H₃PO₄), there are three replaceable hydrogen ions. Hence, it is a tribasic acid.
35. (b) Aestivation is summer sleep. Many organisms like the snails do not find it comfortable in summer. They withdraw and lead a life with reduced BMR (Basal Metabolic Rate) in a state of dormancy. শ্রুতিভাঁস
36. (a) The male makes 2n gametes. The female makes 1n gametes. Two male sperm cells and one central cell from the female are combined in the formation of the endosperm. The ploidy of endosperm cells in resulting seed is tetraploidy, when a diploid female plant is crossed with tetraploid male. শ্রুতিভাঁস
37. (a) শ্রুতিভাঁস
38. (a) In a diamond, the carbon atoms are arranged tetrahedrally. Each carbon atom is attached to four other carbon atoms 1.544 x 10⁻¹⁰ meter away with a C-C-C bond angle of 109.5 degrees. It is a strong, rigid three-dimensional structure that results in an infinite network of atoms. This accounts for diamond's hardness, extraordinary strength and durability.
39. (a) Insects do not breathe through their mouths as we do. They do not have lungs and their blood, which is a watery, yellowish liquid, does not carry oxygen and carbon dioxide around their bodies. Insects have a system of tubes, called tracheae, instead of lungs.
40. (a) Storage proteins account for about 50% of the total protein in mature cereal grains and have important impacts on their nutritional quality for humans and livestock and on their functional properties in food processing. In wheat, the prolamins form the major components of the gluten protein fraction which forms a viscoelastic network in doughs and is largely responsible for the ability to process wheat to form bread, pasta and many other food products. শ্রুতিভাঁস
41. (b) The Modern Synthetic theory of Evolution explains the evolution of life in terms of genetic changes occurring in the populations that leads to the formation of new species. It also explains the genetic population or Mendelian population, gene pool and the gene frequency. Hence, According to the Modern Synthetic theory, the unit of Evolution is Population.
42. (d) Podophyllum is an endangered and valuable medicinal plant.
43. (b) Most wrist straps have a current limiting resistor molded into the ground cord head on the end that connects to the cuff. The resistor most commonly used is a one megohm, 1/4 watt with a working voltage rating of 250 volts. শ্রুতিভাঁস
44. (d) Hepatic portal vein delivers the nutrient rich blood from the stomach and small intestine to the liver.
45. (c) Holography is a technique for recording and reproducing a three-dimensional image of a real object.
46. (b) The coralloid root of Cycas is symbiotically associated with nitrogen fixing blue-green algae, *Anabaena Cycadae* and *Nostoc punctiforme*. These blue-green algae (Cyanobacteria) are prokaryotic, photosynthetic and autotrophic.
47. (b) Fructose is the main sugar found in honey. Honey is composed of water and fructose and glucose with trace enzymes, amino acids, vitamins, minerals and antioxidants. শ্রুতিভাঁস
48. (a) Poisson's ratio is the ratio of transverse contraction strain to longitudinal extension strain in the direction of stretching force. Tensile deformation is considered positive and compressive deformation is considered negative.
49. (c) A choke coil has high inductance and low resistance so, it is capable of producing very high induced emf which produces discharge in the tube.
50. (a) Anemophily or wind pollination is a form of pollination whereby pollen is distributed by wind. Almost all gymnosperms are anemophilous, as are many plants in the order Poales, including grasses, sedges and rushes. Other common anemophilous plants are oaks, sweet chestnuts, alders and members of the family Juglandaceae (hickory or walnut family). শ্রুতিভাঁস
51. (b) The first session of the UN General Assembly was convened on 10 January 1946 in the Methodist Central Hall in London and included representatives of 51 nations.
52. (b) A pistil may consist of one carpel, with its ovary, style and stigma, or several carpels

- may be joined together with a single ovary, the whole unit called a pistil.
53. (c) প্র্যাচিভর্স
54. (a) 'The Third of May' 1808 is a painting completed in 1814 by the Spanish painter Francisco Goya, now in the Museo del Prado, Madrid. In the work, Goya sought to commemorate Spanish resistance to Napoleon's armies during the occupation of 1808 in the Peninsular War. Along with its companion piece of the same size, The Second of May 1808 (or The Charge of the Mamelukes), it was commissioned by the provisional government of Spain at Goya's suggestion.
55. (d) NAG is a fire-and-forget, anti-tank guided missile developed by India's state owned Defence Research and Development Organisation (DRDO). প্র্যাচিভর্স
56. (c) Gaansaraswati Kishori Ravindra Amonkar was a leading Indian classical vocalist, belonging to the Jaipur gharana, or a community of musicians sharing a distinctive musical style. She was a performer of the classical genre khyal and the light classical genres thumri and bhajan.
57. (b) The midpiece of the sperm is packed with mitochondria. Mitochondria are organelles in cells that produce energy. Sperm use the energy in the midpiece to move. The tail of the sperm moves like a propeller, around and around.
58. (b) The Jules Rimet Trophy was the FIFA World Cup Trophy between 1930 to 1970, is made of Gold, Sterling Silver, and Lapis Lazuli. It depicts Nike, the Greek Goddess of Victory. The trophy was originally named 'Victory' and was renamed the Jules Rimet Trophy in honour of the then FIFA President, Jules Rimet, who is FIFA's longest serving President, serving for 33 years from 1921 to 1954.
59. (a) The increased number and even density of species in the region of ecotone or community border is called as the edge effect. The species, which are found primarily or most abundantly or spend most of their time in ecotone are known as Edge species. প্র্যাচিভর্স
60. (c) ESCAP stands for Economic and Social Commission for Asia and the Pacific. The Economic and Social Commission for Asia and the Pacific (ESCAP) serves as the United Nations' regional hub promoting cooperation among countries to achieve inclusive and sustainable development.
61. (a) A standard dry cell comprises a zinc anode, usually in the form of a cylindrical pot, with a carbon cathode in the form of a central rod. The electrolyte is ammonium chloride in the form of a paste next to the zinc anode.
62. (d) প্র্যাচিভর্স
63. (a) Wood in which there is little or no parenchyma tissue among the xylem is called pycnoxylic. Conifers and flowering plants have pycnoxylic wood.
64. (b) The digestive enzyme hydrolase is present in lysosomes which help in the digestion of excess or worn out cell organelles, food particles and engulfed foreign particles.
65. (a) Deccan Queen service was introduced on 1 June 1930 as a weekend train during the days of the British Raj to ferry rich patrons -fans from Bombay (now Mumbai) to Poona (now Pune) to attend horse racing at Pune Race Course. The first service of the train was conducted from Calyan (now Kalyan) and Pune. It is one of the longest running train service on the Indian Railways to have never run on steam power. From the beginning, the Deccan Queen has been run using electric locomotives. Occasionally, it was given diesel locomotives in case of original locomotive failure. প্র্যাচিভর্স
66. (c) Velocity of raindrop increases until it reaches the terminal velocity.
67. (a) These compounds are used in the manufacture of the following products. Cellulose nitrate-Gun powder, Potassium Sulphate-Fertiliser, Potassium salts of fatty acids-Soft soap, Calcium oxide-Glass.
68. (a) Thyroxine hormone and triiodothyronine hormone are secreted by thyroid follicular cells of thyroid gland. The major component of thyroxine hormone is iodine. প্র্যাচিভর্স Deficiency of iodine causes goitre in human.
69. (b) Butter paper is a translucent object as it allows light to pass through it partially, thus not providing clear vision. While, a transparent substance allows light to pass through it completely providing a clear vision. Whereas, an opaque substance is impenetrable to light. On the other hand, luminous objects emit their own light.
70. (d) Salk's vaccine is known as Polio vaccine. Two vaccines are used to combat Poliomyelitis.

- The first being developed by Jonas Salk and first tested in 1952. ଓସ୍ତ୍ରାଢ଼ିଓର୍ସ
71. (a) Mammalian digestive system do not secrete enzymes to digest cellulose, but the cellulose digesting bacteria present in the rumen of cattles can digest the cellulose existing in fodder. ଓସ୍ତ୍ରାଢ଼ିଓର୍ସ
72. (a) In a three pin plug longest pin should be connected to ground terminal. Ground pin is the largest to supply the additional voltage that can give electric shock. And being the longest it can touch before live and neutral terminal.
73. (c) A balanced diet is a diet which provides sufficient amount of carbohydrates, fats, proteins, vitamins and minerals nutrients to maintain good health and with a small provision for periods of leanness or scarcity.
74. (b) Oils are purified by steam distillation. In steam distillation process steam is bubbled through a heated mixture of raw material. Some of the target compound will vaporize which are cooled and condensed yielding a layer of oil and a layer of water. ଓସ୍ତ୍ରାଢ଼ିଓର୍ସ
75. (b) Gracilaria and Gigartina, members of Rhodophyta (Red algae) are the commercial source of agar-agar.
76. (a) A cyclotron is a type of compact particle accelerator which produces radioactive isotopes that can be used for imaging procedures. Stable, non-radioactive isotopes are put into the cyclotron which accelerates charged particles (protons) to high energy in a magnetic field. It was invented by Ernest O. Lawrence in 1929–1930 at the University of California, Berkeley and patented in 1932.
77. (a) Cache memory, also called CPU memory, is high speed Static Random Access Memory (SRAM) that a computer microprocessor can access more quickly than it can access regular RAM.
78. (b) Joule denoted by coulomb—volt. Watt denoted by amp²—ohm. Volt denoted by henry—amp/sec. Coulomb denoted by farad—volt.
79. (d) Asphalt, Paraffin wax and Gas oil (Diesel) are obtained from fractional distillation of Crude oil as different fractions in the refining of oil.
80. (a) Vitamin-‘D₂’ is known as Ergocalciferol. The sources of Vitamin-D are egg, sunlight, sun-cured-hay etc. ଓସ୍ତ୍ରାଢ଼ିଓର୍ସ
81. (d) The Earth’s North Magnetic Pole is actually the magnetic south pole and the Earth’s South Magnetic Pole is the magnetic north pole. No, an iron bar does not get attracted at all points because in the middle of magnet magnetic field is zero. ଓସ୍ତ୍ରାଢ଼ିଓର୍ସ
82. (d) Bihari Puraskar conferred by Rajasthan is a literary award instituted by K. K. Birla Foundation. The award is named after the famous Hindi poet Bihari and is awarded to an outstanding work published in Hindi or Rajasthani by a Rajasthani writer.
83. (d) Hydrofluoric acid slowly dissolves silicon dioxide (SiO₂) which is a major component of most of the types of glass. It forms water soluble Hexafluorosilicic acid (H₂SiF₆) and gaseous silicon tetrafluoride (SiF₄). This particular property of the acid is used to etch glass for removing particularly stubborn stains.
84. (b) The coconut is actually a drupe not a nut and technically, the sweet water inside the coconut is the cellular endosperm, which accumulates during the later phases of seed development. Pericarp is the part of a fruit formed from the wall of the ripened ovary. Scutellum is a part which shields the developing seed.
85. (c) The Henry (H) is the Standard International (SI) unit of inductance. Reduced to base SI units, one henry is the equivalent of one kilogram meter squared per second squared per ampere squared (kgm²s⁻²A⁻²). ଓସ୍ତ୍ରାଢ଼ିଓର୍ସ
86. (a) Glucose is changed to Lactic acid (CH₃CHOHCOOH) in muscle cells when oxygen utilisation is faster than its availability as during vigorous exercise. Build up of lactic acid in muscles during prolonged activity cause fatigue and results in cramps.
87. (c) ‘Imaging India : Ideas for the New Century’ is written by Nandan Nilekani. In this momentous book, Nandan Nilekani traces the central ideas that shaped India’s past and present and asks the key question of the future. ଓସ୍ତ୍ରାଢ଼ିଓର୍ସ
88. (a) Except Ca(CN)₂ all are nitrogenous fertilizers.
89. (a) Living fossils are those organisms whose close relatives are not living on the earth. Cycas is a living fossil. *Zamia pygmaea* is endemic to Cuba and is the smallest gymnosperm on the earth. *Sequoiadendron giganteum* is the tallest coniferous gymnosperm known as redwoods. Canada balsam is obtained from the *Abies balsamea* (a North American fir) also known as Canada balsam.

90. (b) The modern game of Polo, though was formalised and popularised by the British, is actually derived from Manipur, India, where the game was known as ‘Sagol Kangjei’, ‘Kanjai-bazee’, or ‘Pulu’.
91. (d) Meningitis is an acute inflammation of the protective membranes covering the brain and spinal cord. The inflammation can be caused by bacteria, virus or any other pathogen.
92. (d) Operation Safed Sagar was the code name assigned to the Indian Air Force’s strike to support the ground troops during Kargil war.
93. (c) The flavour of apples is mainly due to the Ethanol (C_2H_5OH).
94. (b) Karnal bunt is a fungal disease of wheat, durum wheat, and triticale. The causative Organism is *Neovossia Indica (Tilletia indica)*.
95. (a) The Lilavati is Indian Mathematician Bhaskara-II’s treatise on mathematics, written in 1150.
96. (b) Enriched uranium are the uranium in which the component of Radio active isotopes U^{235} are Artificially increased. It is used in atomic reactors.
97. (d) Plague is a deadly infectious disease, caused by the enterobacteria *Yersinia pestis*. Until 2007, plague, yellow fever, and cholera were the three epidemic diseases reported to WHO. AIDS is caused by human immunodeficiency virus. Baldness can be caused by a fungus *Microsporum audouinii*, a common cause of ringworm and associated hair loss. Malaria is mosquito-borne infectious disease of humans caused by protozoan of genus *Plasmodium*.
98. (d) The International Right to Know Day is celebrated on 28 September. This day was proposed on 28 September, 2002 at a meeting of Freedom of Information organisations from around the world in Sofia, Bulgaria.
99. (c) Freezing of water is not a chemical change as ice when melt changes back to water showing physical change.
100. (c) NASA’s ‘Cassini’ spacecraft is on mission for the planet Saturn.
101. (a)
102. (a) Cholera is a disease caused by bacterium *Vibrio cholerae*. Athlete’s foot is caused by fungal species such as *Epidermophyton floccosum*, *Trichophyton sp.*
103. (a) Sustainable development is the type of development that fulfils the criteria of meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.
104. (b) After 1971 the fourth generation computers were built. The fourth generation computers were the extension of third generation technology. The fourth generation computers emerged with development of the VLSI (Very Large Scale Integration). With the help of VLSI technology microprocessor came into existence.
105. (a) The Winter Paraolympics were first held in 1976 in Ornsköldsvik Sweden.
106. (b) Endomitosis refers to the division of chromosomes without nuclear division.
107. (d) The “hockey stick” graph shows the average global temperature over the past several 1,000 years.
108. (b) The most common image file formats, the most important for cameras, printing, scanning and internet use are JPG, TIF, PNG and GIF. JPG is the most used image file format. JPG is the file extension for JPEG files (Joint Photographic Experts Group, committee of ISO and ITU).
109. (c)
110. (d) The term ‘Ecology’ was coined in 1866 by, Ernst Haeckel from the Greek word “oikos” meaning house and “logos” meaning study.
111. (a) The dark reactions of photosynthesis occur in the stroma of the chloroplast. The light reactions occur in the thylakoid membranes or the grana of the chloroplast. The glycolytic pathways occur in the cytoplasm of the cells. Krebs cycle or tricarboxylic acid or citric acid cycle occurs in the mitochondria to produce energy through oxidation.
112. (c) Thillana is one of the presentation styles in Bharatanatyam, where a host of dancers perform together, exploring the extent of strong kinetics. This style requires exemplary skills in terms of rhythm, timing and synchronization in order to radiate the unique performance charm associated with it.
113. (a)
114. (d) (i) Tropical forest-Silent valley
(ii) Conifer forest-Himachal Pradesh
(iii) Mangroves-Sundarbans
(iv) Deciduous forest-Rajasthan
115. (a) The annual “Flamingo Festival” began at Sullurpeta near the Pulicat Lake Bird Sanctuary in Nellore district of Andhra Pradesh.

116. (b) A “Green School” is identified with those elements and practices that inculcate environmental sensitivity and promote environmental sustainability through various environment-friendly means that encourage judicious use of resources. শ্রেণিকর্ম
117. (c) Absorption technique is used for controlling gaseous pollutant. These pollutants are brought into contact with a liquid such as water. The liquid absorbs the gas. Incineration is a process of waste treatment that employs combustion of the organic substances comprised in the waste materials. An arrestor is meant for protection of insulators and conductors of a system from the effects of lightning.
118. (a) Raja Ravi Varma was known as ‘Raffale of East’. His paintings are considered to be among the best examples of the fusion of Indian traditions with the techniques of European academic art.
119. (c) Biosphere is a combination of lithosphere, hydrosphere and atmosphere. Biosphere is not found everywhere, some areas do not support the conditions required for Biosphere. Hence organisms are not uniformly distributed throughout the world.
120. (d) CO₂, H₂O, chlorophyll and Sunlight are necessary for the process of photosynthesis which occurs in autotrophs. শ্রেণিকর্ম
121. (a) The Rock Theme Park is located in Kerala, India.
122. (a) National Green Tribunal (NGT) Act, 2010 enables creation of a special tribunal to handle the expeditious disposal of the cases pertaining to environmental issues. It draws inspiration from the India’s constitutional provision of Article 21, assuring the citizens of India the right to a healthy environment. শ্রেণিকর্ম
123. (b) World Wide Web was invented by Sir Tim Berners-Lee in 1989. Sir Tim Berners-Lee is a British Computer Scientist. He was born in London. He Invented WWW while he was working at CERN (the European Organization for Nuclear Research).
124. (b) The Central Pollution Control Board (CPCB), statutory organisation, was constituted in September, 1974 under the Water (Prevention and Control of Pollution) Act, 1974. Further, CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981.
125. (c) The marathon is a long-distance race, completed by running, walking, or a run/walk strategy. There are also wheelchair divisions. The marathon has an official distance of 42.195 kilometres (26.219 miles; 26 miles 385 yards), usually run as a road race.
126. (c) The concept of biodiversity hotspots was given by biologist Norman Myers. A biodiversity hotspot is a biogeographic region that is both a significant reservoir of biodiversity and is threatened with destruction.
127. (d) Unplanned urbanization and industrialization are detrimental to sustainable development, environment and ecology and preservation of biodiversity. শ্রেণিকর্ম
128. (a) Frogs generally breathe by their lungs but they can also breathe with their skin too. Their skin is glandular which can exchange oxygen and carbon dioxide along with some other bodily secretions. The mature frogs have no gills, but before their larval stage have tail as well as internal gills like fishes through which most of the breathing occurs. These two particular features disappear once the tadpoles are ready to metamorphose.
129. (d) শ্রেণিকর্ম
130. (a) International Gandhi Peace Prize is given annually by Government of India to those individuals and organizations which contribute towards changes in the political, social or economic reforms via non-violence. It was instituted in 1995.
131. (a) The Daily Mirror is a British national daily tabloid newspaper which was founded in 1903. It was founded by Alfred Harmsworth.
132. (b) Gujarat Marine National Park and Marine Sanctuary Conservation Society was established on 3rd June, 2011 as a directive from the Hon’ble Supreme Court of India. To protect and conserve marine biodiversity by utilizing the compensatory funds generated against the land of the Marine National Park and Sanctuary provided to the user agencies such as Thermal Power Station, Indian Oil Corporation and Gujarat State Fertilizer company. The main focus of the society is to strengthen and maintain marine biodiversity including mangroves and corals in and around Marine National Park and Marine Sanctuary.
133. (b) India’s first major Football International Tournament was in 1948 London Olympics, where a predominately barefooted Indian team lost 1-2 to France. শ্রেণিকর্ম

134. (a) Jawaharlal Nehru Award for International Understanding was founded in 1965. It is administered by the Indian Council for Cultural Relations (ICCR) to people “for their outstanding contribution to the promotion of international understanding, goodwill and friendship among people of the world”. The money constituent of this award is 2.5 million rupees. U. Thant from Burma was the first recipient of this award. প্র্যাচিভর্স
135. (c) Gahirmatha Marine Wildlife Sanctuary is the only marine wildlife sanctuary of Odisha, is the most suitable natural place for Olive Ridely Sea Turtles for mating and nesting.
136. (b) Endonucleases are enzymes that cleave the phosphodiester bond within a polynucleotide chain. Some, such as deoxyribonuclease-I, cut DNA relatively non-specifically (without regard to sequence), while many, typically called restriction endonuclease or restriction enzyme, cleave only at very specific nucleotide sequences. প্র্যাচিভর্স
137. (b) Pigeon is a bird of class Aves. The urinary bladder is absent in aves because they do not urinate, their excretory waste is excreted as white paste through the cloaca.
138. (a) Phaeophyta or brown algae are a group of autotrophic, multicellular organisms, belonging to the class Phaeophyceae in the division Chromophyta. The brown colour of these algae results from the dominance of the xanthophyll pigment fucoxanthin, which masks the other pigments, Chlorophyll a and c (there is no Chlorophyll b), beta-carotene and other xanthophylls.
139. (a) Acromegaly is caused by excess of STH (somatotrophic hormone), released by anterior lobe of pituitary after adolescence. The symptoms of this syndrome is that the bones of the lower jaw and limbs become abnormally enlarge but the body does not attain a giant stature.
140. (d) প্র্যাচিভর্স
141. (a)
142. (c) Tarapur Atomic Power Station (TAPS) is located in Tarapur, Palghar, India. It was the first commercial nuclear power station built in India.
143. (c) A cryogenic rocket engine is a rocket engine that uses a cryogenic fuel or oxidizer, that is, its fuel or oxidizer (or both) are gases liquefied and stored at very low temperatures.
144. (d) ‘The Road Ahead’ is a book written by Bill Gates, co-founder and then CEO of the Microsoft Software company, together with Microsoft executive Nathan Myhrvold and journalist Peter Rinearson. প্র্যাচিভর্স
145. (c) WAIS stands for “Wide Area Information Server”. This is a program that can index enormous amounts of information and make it searchable across large networks (including the Internet). People can search the WAIS index and it will return results by relevance.
146. (b) The National Defence Academy (NDA) is located in Khadakwasla, Pune, Maharashtra. It is the first tri-service academy in the world.
147. (a) Lance Edward Armstrong (born Lance Edward Gunderson on September 18, 1971) is an American professional road racing cyclist who is best known for winning the Tour de France, a record seven consecutive times, after having survived testicular cancer.
148. (c) The Kyoto Protocol was adopted at the third session of the Conference of Parties to the UNFCCC (COP 3) in 1997 in Kyoto, Japan. The Kyoto Protocol is an international treaty, which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gases emissions, based on the premise that (a) global warming exists and (b) man-made CO₂ emissions have caused it. প্র্যাচিভর্স
149. (c) The Montreal Protocol was designed to stop the ozone depletion and this treaty was signed in the Vienna Convention. This is an international treaty that was designed to protect the ozone layer by removing the production of numerous substances that are responsible for the ozone depletion. This treaty was signed in 1987 and substantially amended in 1990 and 1992.
150. (c) “Fat Man” was the codename for the nuclear bomb that was detonated over the Japanese city of Nagasaki by the United States on 9 August 1945. Fat Man used Plutonium-239 as the fissile material.
151. (a) ‘National Food Security Mission’ was launched in October 2007. Food Security Mission comprising rice, wheat and pulses to increase the annual production of rice by 10 million tons, wheat by 8 million tonnes and pulses by 2 million tons by the end of the Eleventh Plan (2011-12). প্র্যাচিভর্স

152. (d) Dronacharya Award is an award presented by the Government of India for excellence in sports coaching. The award comprises a bronze statuette of Dronacharya, a scroll of honour and a cash component of Rs. 5,00,000. The award was instituted in 1985. The first recipients of the award were Bhalachandra Bhaskar Bhagwat (Wrestling), Om Prakash Bhardwaj (Boxing), and O. M. Nambiar (Athletics), who were honoured in 1985.
153. (d) Norman Ernest Borlaug was an American agronomist and humanitarian who led initiatives worldwide that contributed to the extensive increases in agricultural production termed the Green Revolution. Borlaug was awarded multiple honours for his work, including the Nobel Peace Prize, the Presidential Medal of Freedom and the Congressional Gold Medal. শ্রীচিহ্ন
154. (a) The Second SAARC summit was held in November Bengaluru, India in 1986. It was the first time the SAARC summit was organised in India.
155. (c) Vir Chakra is an Indian gallantry award presented for acts of bravery in the battlefield while the Ashok Chakra, Kirti Chakra and Shaurya Chakra in addition for separate acts of gallantry are awarded for valour, courageous action or self-sacrifice away from the battlefield.
156. (d) Lata Mangeshkar Puraskar, instituted in 1992 by the Maharashtra government and MP Government 1984. শ্রীচিহ্ন
157. (c) The International Monetary Fund (IMF) is an international organization headquartered in Washington D.C., consisting of 189 countries working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth and reduce poverty around the world. It was formed in 1944 at the Bretton Woods Conference.
158. (a) Jnanpith award is a literary award in India. The Saraswati Samman is also a literary award for outstanding prose or poetry literary works in any Indian language. Vachaspati Samman is given in Sanskrit literature while Shankar award is for Indian Philosophy.
159. (a) Raj Ghat — Mahatma Gandhi শ্রীচিহ্ন
Veer Bhumi — Rajiv Gandhi
Shakti Sthal — Indira Gandhi
Shanti Van — J. L. Nehru
160. (a) শ্রীচিহ্ন
- | | Army | Air Force | Navy |
|----------|--------------------|------------------|--------------|
| 161. (b) | (i) Lt. General | Air Marshal | Vice Admiral |
| | (ii) Major General | Air Vice Marshal | Rear Admiral |
| | (iii) Brigadier | Air Commodore | Commodore |
162. (a) The Planning Commission constituted S.P. Gupta Committee which prepared 'India Vision 2020'. The Report of the Committee examines many important issues, but the ones that stand out most powerfully are employment and education.
163. (b) G. D. Birla, Ambalal Sarabhai and walchand Hirachand gave financial help to the Congress movement. Ambalal Sarabhai was a leading industrialist of Ahmedabad. Ghanshyam Das (G. D.) Birla was an Indian businessman; Walchand Hirachand Doshi was an Indian industrialist, founder of Walchand group of companies. Thus, all of them were Indian industrialists.
164. (c) 'And Then One Day : A Memoir' is the autobiography of Naseeruddin Shah.
165. (b) The B. R. Ambedkar University, initially known as Andhra Pradesh Open University, came into being on 26th August 1982, was India's first Open University.
166. (a) Captain Roop Singh Stadium, is a cricket ground in Gwalior, Madhya Pradesh. Among all the hosted matches by the stadium the first one was played between India and West Indies on 22 January, 1988. It has a limit of 18,000 people. It was originally a hockey stadium named after great Indian hockey player Roop Singh. শ্রীচিহ্ন
167. (d) Soma Biswas is an athlete who specializes in heptathlon. She has won the silver medal in 2002. Asian Games in Busan, South Korea.
168. (b) Ashok Chakra Award is the peacetime award. The Param Vir Chakra (PVC) is India's highest military decoration awarded for the highest degree of valour or self-sacrifice in the presence of the enemy and cannot be awarded to civilians. It replaced the former British colonial Victoria Cross. শ্রীচিহ্ন
169. (a) The Academy award is also known as the Oscar award which is presented for various categories in the Film industry. It was first given in 1929.
170. (c) Pranav Dhanawade (13 May, 2000) is an Indian cricketer from Kalyan, Maharashtra. Batting in one innings, stretching over 4 and 5 January, 2016, he became the first person to score more than 1,000 runs in one innings in an officially recognised match.

171. (b) Sanjay Kothari, the Secretary to the President, has been selected as the new Central Vigilance Commissioner by a high-powered committee headed by Prime Minister Narendra Modi. The committee has also chosen former Information and Broadcasting Secretary Bimal Julka, as the new Chief Information Commissioner in the Central Information Commission. প্র্যাচিভর্স
172. (d) Badminton Asia Team Championships in Manila (Philippines): Indonesia won men's event; Japan won women's event.
173. (b) Delhi's Indira Gandhi International Airport (IGIA) has become free of single-use plastic usage. With this feat, GMR-led Delhi International Airport Ltd (DIAL) became the first single-use plastic-free airport in India. The implementation of single-use plastic-free airport measures within IGI Airport's operations was certified by the Confederation of Indian Industry-ITC Centre of Excellence for Sustainable Development (CII-ITC CESD).
174. (c) Maharashtra Chief Minister Uddhav Thackeray launched the world's largest plasma therapy trials for the COVID-19 "Project Platina". The project is aimed at creating robust data for treating the disease for which no specific line of treatment exists.
175. (b) Liverpool won its 19th top-flight title in the 28th edition of Premier League Championship 2020 football tournament after waiting for 30 years by defeating Manchester City by 2-1 at Stamford Bridge. প্র্যাচিভর্স
176. (b) On account of National Statistics Day The Ministry of Statistics and Programme Implementation (MoSPI) presented the first Prof. P. C. Mahalanobis National Award in Official Statistics' 2020 to Dr. Chakravarthi Rangarajan, Former Governor, Reserve Bank of India for his contribution to the National Statistical System (NSS) in India.
177. (c) Seeking to enhance the firepower of Army and Air Force, India has started developing a 200-km strike range tactical ballistic missile 'Pranash'. The ballistic missile will be used by the Army and the Air Force for destroying enemy targets at short ranges. প্র্যাচিভর্স
178. (a) Saurav Ghosal missed out on his maiden PSA World Tour event title after suffering a straight-game defeat to top seed Fares Dessouky of Egypt in the final of the Pittsburgh Open squash tournament. Ghosal lost 7-11, 4-11, 9-11 to his Egyptian opponent who played flawless squash in the summit clash. প্র্যাচিভর্স
179. (d) Union Government has appointed veteran sports administrator Vijay Kumar Malhotra as President of All India Council of Sports (AICS). With this he became first President of AICS and was given an equivalent rank of a Minister of State (MoS) in the Union Council of Ministers.
180. (a) PM Shri Narendra Modi-led Union Cabinet approved the Agreement between India and the Federative Republic of Brazil on Mutual Legal Assistance in Criminal Matters has to be signed. The Agreement aims to enhance the effectiveness of both the countries in investigation and prosecution of crime through cooperation and Mutual Legal Assistance in Criminal Matters.
181. (b) France is to train Indian flight surgeons to enable them to monitor the health of astronauts selected for the human space mission Gaganyaan. The announcement was released on 21 January 2020. প্র্যাচিভর্স
182. (b) On 18 January, 2020 Lieutenant General Satinder Kumar Saini was appointed as the next Vice Chief of the Army Staff and assumed the office from 25 January, 2020.
183. (d) On the 150th celebration of Kolkata Port Trust, Prime Minister Narendra Modi dedicated the Port Anthem at Netaji Indoor Stadium in Kolkata. Prime Minister Narendra Modi said that Kolkata Port holds important place in the history of India.
184. (b) Union Home Minister Amit Shah inaugurated the Indian Cyber Crime Coordination Centre (I4C) and National Cyber Crime Reporting Portal. Through the portal, people can report cyber crimes online.
185. (c) Lawyer Robert Abela became Malta's new Prime Minister after securing a surprising victory in his party's leadership contest, which was triggered by a political scandal over the assassination of an investigative journalist that brought down the country's previous leader and several of his allies. প্র্যাচিভর্স
186. (c) The 23rd National Youth Festival (NYF) 2020 held from 12-16 January at Indira Pratishthan, Lucknow. The festival was jointly inaugurated by Chief Minister, Uttar Pradesh Yogi Adityanath and Minister of State (I/C) for Youth Affairs & Sports, Shri Kiren Rijju.
187. (b) IFS officer Arun Kumar Sahu is appointed as the next High Commissioner of India to the

- mountainous Caribbean island of Dominica with residence in Port of Spain. The appointment was approved by the Ministry of External Affairs (MEA). 🏆
188. (c) The 2nd National GST Conference of the Commissioners of State Tax and Chief Commissioners of Central Tax was held on January 7 in New Delhi under the chairmanship of Dr Ajay Bhushan Pandey, Revenue Secretary, Ministry of Finance. 🏆
189. (c) Gujarat Chief Minister Vijay Rupani unveiled the second tallest statue of Sardar Vallabhbhai Patel in the world at Ahmedabad. It is around 50 feet tall bronze statue with a weight of 70 thousand kilograms, unveiled at the Sardardham campus near the Vaishnodevi Circle in Ahmedabad.
190. (b) Chennai-based computer scientist R. Ramanujam has received the Indira Gandhi Prize for popularisation of science for the year 2020. The prize was instituted by Indian National Science Academy in 1986 and is given once in three years to either a career media professional or a career scientist who has made outstanding contributions to science popularization in English or in other languages. 🏆
191. (c) The Government of India declared the entire Nagaland as a “disturbed area” for another six months from 30 June, 2020 to 31 December, 2020 by exercising the powers conferred by Section 3 of the Armed Forces (Special Powers) Act, 1958 (No.28 of 1958).
192. (d) Shashank Manohar stepped down as International Cricket Council (ICC) chairman after his two 2 years tenure (4 years). He is the first independent chairman. His tenure ended on July 1, 2020. Deputy Chairman Imran Khwaja will take charge as interim chairman until the next chairman is elected.
193. (a) Amid frequent disruption of cross-border trade via the Petrapole-Benapole land ports, Syama Prasad Mookerjee Port has started a new shipping service between Kolkata Dock System (KDS) and Chattogram (Bangladesh) through Indo-Bangladesh Protocol Route to transport containers with the aim to increase the Indo-Bangla trade. 🏆
194. (d) Vice President Venkaiah Naidu has launched India’s first social media app named Elyments. The app allows users to make free video or audio calls and chat privately or in groups. More than 1000 IT professionals came together to develop this app under Gurudev Sri Sri Ravi Shankar. The app helps boost the ambitious Make in India initiative. 🏆
195. (a) Indian Space Research Organisation (ISRO) is set to launch the Amazonia - 1 onboard the Polar Satellite Launch Vehicle (PSLV) as a primary payload by August 2020. Amazonia -1 is Brazil’s first satellite for Earth observation - designed, assembled and tested in Brazil.
196. (b) An independent filmmaker, Kezang D Thongdok won the 10th edition Dada Saheb Phalke Award for the year 2020 for his documentary ‘Chi Lupo’ - showcasing the practice of collection of honey from the perched rocky hilltops.
197. (c) Brad Pitt has won the best supporting actor Oscar for his role as Cliff Booth in ‘Once Upon a Time in Hollywood’ at the 92nd Academy Awards. Pitt saw off strong competition from Al Pacino and Joe Pesci for ‘The Irishman’, Tom Hanks for ‘A Beautiful Day in the Neighborhood’ and Anthony Hopkins for ‘The Two Popes’. 🏆
198. (d) The Ministry of Micro, Small and Medium Enterprises (MSME) launched a National Level Awareness Programme (NLAP) 2020 from 17-28 February, 2020. The main objective of NLAP is to spread awareness about the schemes and activities undertaken by the Ministry of MSME and its attached organizations including Office of Development Commissioner (MSME), MSME Technology Centres, Khadi & Village Industries Commission (KVIC), Coir Board, National Small Industries Corporation Limited, National Institute of MSME and Mahatma Gandhi Institute of Rural Industrialization. 🏆
199. (c) Great Indian Bustard, Asian Elephant and Bengal Florican have been classified as “endangered migratory species” by a UN body, paving the way for trans-boundary conservation efforts. India’s proposal for inclusion of the three species in the global list for international protection under the UN’s Convention on Conservation of Migratory Species was accepted unanimously on February 20.
200. (b) New Zealand batsman Ross Taylor founded a unique club on January 21 in Wellington when he took the field for the 1st Test vs India. The ongoing match at Basin Reserve happens to be the 100th Test match for the Kiwi veteran and he is now the only cricketer ever to play 100 matches in each of the 3 International formats.