HINTS & SOLUTION

1. *b)* "am" becomes "was" in indirect speech.
   No need for quotation marks.

2. *d)* "would" → "will" (back shifting reversed in direct speech).
   Pronouns adjusted: "she" → "I", "me" → "you"

3. *c)* Question form in indirect speech uses "if/whether"
   "Did ... complete" → "had completed"

4. *b)* "might" remains unchanged
   "next week" becomes "the following week"

5. *c)* "must" → "had to" in indirect speech
   Reporting verb "said to" changes to "told"

6. *b)* Affect is usually a verb meaning to influence.
   Effect is usually a noun meaning the result

7. *b)* Elicit means to draw out a response or reaction.
   Illicit means not legally permitted.

8. *b)* Discreet means careful or tactful in speech or actions.
   Discrete means distinct or separate.

9. *c)* Council is a group formed for consultation or decision-making.
   Counsel can be legal advice or a lawyer.

10. *b)* Tortuous describes something complex, winding, or full of twists.
    Torturous means painful or involving great suffering.

11. *b)* "A curate's egg" refers to something that is partly good and partly bad, often used sarcastically when something is being falsely praised.

12. *b)* "Hoist with his own petard" is a Shakespearean idiom meaning to be harmed by one's own plan.

13. *a)* "In the teeth of opposition" means continuing with something despite facing strong resistance or adversity.

14. *c)* "Damning with faint praise" is a rhetorical device where someone is subtly criticized by giving weak praise.

15. *c)* "The writing on the wall" refers to a clear sign of impending misfortune or doom.

16. *a)* "Panel" is a collective noun. It takes a singular verb: "has," not "have."

17. *b)* After "did," we use the base form of the verb: "announce," not "announced."

18. *b)* After "It is imperative that," use subjunctive mood: "he submit," not "submits" or "their submit." Also, "their" for "every candidate" is questionable in formal grammar. Correction: Submit his/her thesis.

19. *a)* "Data" is traditionally a plural noun (datum = singular). So "fail" is correct.

20. *b)* "Begins" is incorrect after "No sooner had" – it should be past tense: "began."

21. *b)* "Insights" is plural, so the verb should be: "were" far too nuanced.

22. *a)* "Despite" is used without 'of'. Correct phrase: "Despite her vast experience."

23. *d)* "Each" is singular → "has to be tested" is correct. No error.

24. *b)* After "had," use past participle: "begun" is correct. "Begin" (base) → "began" (past) → "begun" (past participle)

25. *b)* "Neither…nor" construction takes a singular verb → "was realistic," not "were."

26. *c)* The passage highlights the internal paradox of logical positivism—its own criterion (verifiability principle) cannot be empirically verified, rendering it self-defeating.

27. *c)* The passage asserts that metaphysical constructs, though dismissed by positivists, had heuristic value in guiding empirical science.

28. *c)* The passage describes Kuhn and Feyerabend's philosophies as historically and socially informed critiques of rigid empiricism.

29. *c)* Despite its decline, logical positivism is noted for influencing analytic philosophy, particularly its focus on linguistic precision.

30. *b)* A strict logical positivist would likely dismiss historical or sociological accounts of science as non-verifiable and hence non-cognitive.

31. *b)* The sentence contrasts rationalism with empiricism, highlighting their tension in intellectual history.

32. *c)* Rational structures are often used as "correctives" to manage or organize disordered sensory input.

33. *b)* The metaphor of "architecture of knowledge systems" fits the formal, structured tone of the passage.

34. *c)* The Enlightenment aimed to institutionalize reason, marginalizing subjective modes of knowing.

35. *b)* The passage critiques the supposed objectivity (i.e., "neutrality") of rationalism, calling it culturally and linguistically contingent.

36. *a)* The sentence follows a clear logical flow: subject → verb → condition → manner.

37. *a)* The structure is grammatically correct and logically connects the cause (divorced) with the effects.

38. *c)* The sentence ends with "paradoxically" to highlight irony, fitting the academic tone.

39. *a)* "Not merely… but…" structure is correctly used to contrast two ideas about language.

40. *d)* Subject, verb, and object are in proper sequence, ending with a clear postmodern context.

41. *b)* "Only" modifies the noun "man" directly and restrictively, functioning as a determiner. It is not an adjective in this context since it doesn't describe a quality but limits reference.

42. *a)* Here, "after" introduces the noun "dinner," functioning as a preposition, not a conjunction (which would require a clause).

43. *a)* "Email" is originally a noun, used here as a verb without morphological change—classic example of conversion (zero derivation).

44. *b)* "Even" intensifies the entire noun phrase "the best athletes" and precedes it. Hence, it's a pre-modifying adverb, subtly marking contrast or unexpectedness.

45. *a)* "Ought" behaves like a modal, takes bare infinitive, and has -ed form (historically from "owed"), but semantically refers to the present or future obligation.

46. *a)* "Anomalous with" is used in formal academic contexts to mean inconsistent or deviating from something established.

47. *c)* "Hinges on" is the idiomatic expression denoting dependence.

48. *c)* "Delves into" is the correct idiomatic collocation.

49. *c)* "Implicated in" is the correct usage; all others are incorrect prepositional pairings.

50. *b)* "In spite of" is the correct concessive preposition in formal discourse.

51. *c)* It has two poles — North and South — like a bar magnet.

52. *b)* Thumb represents current direction, fingers curl in the direction of magnetic field.

53. *c)* Same pitch means same frequency.

54. *b)* Closed-end pipes produce odd harmonics only.

55. *c)* A lightning conductor protects the building by offering a low-resistance path for the lightning current to safely reach the ground, avoiding damage to the structure.

56. *c)* Using pressure balance in the U-tube:
Oil column height = 75 mm (65 mm + 10 mm) = 0.075 m.
Water column height = 65 mm = 0.065 m.
$P_{oil} * 0.075 = 1000 * 0.065$
$P_{oil} = (1000 * 0.065) / 0.075 = 866.67$ kg/m³.

57. *c)* The net reaction R (normal force) on a block on a rough inclined plane is given by $R = mg \cos \theta$, where m is the mass, g is gravity, and θ is the angle from the horizontal. As θ varies from -90° to 90°, $\cos \theta$ goes from 0 to 1 (at $\theta = 0°$) and back to 0. Thus, R starts at 0, peaks at $\theta = 0°$, and decreases to 0.

58. *a)* To maximize power delivered to the external resistance R, the condition is R = r (from the maximum power transfer theorem).

59. *d)* The sensitivity of a potentiometer rises by increasing the potential gradient, decreasing the wire length, and lowering the current. A higher gradient and shorter wire increase voltage per unit length, while less current allows finer measurements, so all these methods work.

60. *a)* The escape speed from Earth is the same regardless of direction. When fired at 45° with speed v, the projectile escapes, meaning v is the escape speed. Fired vertically, it needs the same speed to escape. Thus, the required speed is v.

61. *c)* The prongs of a tuning fork vibrate in opposite directions, meaning they are out of phase by 180 degrees, which corresponds to a phase difference of π radians.

62. *b)* In this problem, three identical balls are involved in a one-dimensional elastic collision. Ball 1 moves with velocity v and strikes ball 2, which is in contact with ball 3. Since the balls are identical and the collisions are perfectly elastic, momentum and kinetic energy are conserved. In such a scenario, the first ball (ball 1) transfers its momentum entirely to ball 2, which then transfers it entirely to ball 3. As a result, ball 3 moves forward with velocity v, while balls 1 and 2 come to rest. Therefore, the correct statement is that ball 1 and 2 come to rest and ball 3 moves with speed v, making option B the correct answer.

63. *c)* First, convert the mass of each bullet to kilograms: 50 g = 0.05 kg.
The bullet's change in velocity (since it rebounds with the same speed) is from +150 m/s to -150 m/s, so the change in velocity $\Delta v = 150 - (-150) = 300$ m/s.
The momentum change per bullet = mass × Δv = 0.05 kg × 300 m/s = 15 kg·m/s.

Since 20 bullets hit per second, the total change in momentum per second = 15 × 20 = 300 kg·m/s².
Force = change in momentum per second = 300 N.

64. *b)*

We are given:
Temperature on Kelvin scale = X K
Temperature on Fahrenheit scale = X°F
Using the formula to convert Kelvin to Fahrenheit:
$°F = (9/5 × (K – 273.15)) + 32$
Now, putting the value as X on both sides:
$X = (9/5 × (X – 273.15)) + 32$
Multiply both sides by 5:
$5X = 9(X – 273.15) + 160$
$5X = 9X – 2458.35 + 160$
$5X = 9X – 2298.35$
$4X = 2298.35$
$X = 2298.35 / 4 = 574.25$

65. *a)* The kinetic energy of the mass is given by KE = ½mv². Since the mass rotates in a circle, the tension provides the centripetal force, $T = mv²/r$. When the radius r decreases by a factor of 2 ($r' = r/2$), angular momentum ($L = mvr$) is conserved because there's no external torque. Thus, $mvr = mv'r'$, so $v' = (v r)/r' = 2v$. The new kinetic energy is $KE' = ½m(v')² = ½m(2v)² = 4 × ½mv² = 4 × KE$.

66. *b)* In simple harmonic motion (SHM), acceleration a is directly proportional to displacement x but in the opposite direction, given by $a = -ω²x$, where ω is the angular frequency. This relationship produces a straight line graph passing through the origin with a negative slope when plotting a vs. x.

67. *b)* Calculate the distance covered by the ray in one reflection (OP):
Using trigonometry, tan 30° = OP / PQ
Given PQ = 0.2 m, then OP = PQ * tan 30° = 0.2 / √3 m
Calculate the number of reflections:

Number of reflections = (Total distance between mirrors) / (Distance covered in one reflection)
Number of reflections = 2√3 / (0.2/√3)
Number of reflections = 30

68. *b)*

The total resistance in each branch is the sum of the individual resistances:
Top branch: 20 Ω + 30 Ω = 50 Ω
Bottom branch: 30 Ω + 20 Ω = 50 Ω
Since both branches have the same resistance, the 2V voltage source will divide equally between them. Each branch will have a potential difference of 1V.
The voltmeter Is connected between the midpoints of the two branches. The potential at the midpoint of the top branch will be 1V (half of the 2V drop across the 20 Ω resistor), and the potential at the midpoint of the bottom branch will also be 1V (half of the 2V drop across the 30 Ω resistor).
The voltmeter measures the potential difference between these two midpoints. Since both midpoints are at the same potential (1V), the potential difference between them is 0V.

69. *b)* To maximize the repulsive force between two charged conducting spheres, we use Coulomb's law: $F = k (q_1q_2 / r²)$, where $q_1 + q_2 = Q$. Let $q_1 = x$ and $q_2 = Q – x$. The force is $F = k (x(Q – x) / r²)$. This is a quadratic in x, $F(x) = k (xQ – x²) / r²$, which reaches a maximum when x = Q/2 (by taking the derivative and setting it to zero). Thus, $q_1 = Q/2$, $q_2 = Q/2$.

70. *c)*

The ball passes the same point at t = 3 s and t = 7 s, so the time to reach max height is the midpoint: (3 + 7)/2 = 5 s. Time to peak = 5 s. Using $v = u – gt$, at the peak v = 0, so 0 = u – 9.8×5, giving u = 49m/s.

71. *c)* The Sun subtends an angle of 30 arcminutes (0.5°), not 30°, as the Sun's angular diameter is typically 0.5°. Convert to radians:
$0.5° = 0.5 × (π/180) ≈ 0.008727$ radians. For a concave mirror, the image forms at the focal point. The diameter d of the image is:
$D = f × θ$, where $f = 100$ cm, $θ = 0.008727$.
$D = 100 × 0.008727 ≈ 0.8727$ cm.

72. *a)* The intensity ratio of the two waves is 9:1, so the amplitude ratio is the square root of the intensity ratio:
$√(9:1) = 3:1$. The intensity at maxima is $(A_1 + A_2)^2 = (3 + 1)^2 = 16$, and at minima is $(A_1 - A_2)^2 = (3 − 1)^2 = 4$. Thus, the ratio of intensity at maxima to minima is 16:4 = 4:1.

73. *d)*
When a ball of mass = 2 kg hits a wall with a velocity = 5 m/s, in positive direction and it moves back with a velocity = 3 m/s, find the impulse in SI units.
Impulse = $m Δv$ Mass = 2 kg Initial velocity = +5 m/s, final velocity = -3 m/s $Δv = -3 − 5 = -8$ m/s Impulse $= 2 × (-8) = -16$ kg·m/s Magnitude = 16

74. *b)*
Find the current through the 9 Ω resistor:
Power $(P) = I^2R$, where I is the current and R is the resistance.
144 W $= I^2 * 9$ Ω
$I^2 = 144$ W $/ 9$ Ω $= 16$ A²
$I = √16$ A² $= 4$ A
Find the voltage across the 9 Ω resistor:
Voltage $(V) = IR$
$V = 4$ A $* 9$ Ω $= 36$ V
Since the 9 Ω and 6 Ω resistors are in parallel, they have the same voltage across them.
Find the current through the 6 Ω resistor:
$I = V / R$
$I = 36$ V $/ 6$ Ω $= 6$ A
Find the total current in the circuit:

Total current = current through 9 Ω resistor + current through 6 Ω resistor
Total current = 4 A + 6 A = 10 A
Find the voltage across the 3.6 Ω resistor:
$V = IR$
$V = 10$ A $* 3.6$ Ω $= 36$ V
The potential difference across the 3.6 ohm resistor is actually half of that, because the voltage is divided between the parallel resistors and the 3.6 ohm resistor.
$36V/2 = 18V$

75. *c)*
Step 1: Calculate volume of metal shell
$V = (4/3) × π × (R^3 - r^3)$
$= (4/3) × π × (0.06^3 - 0.05^3)$
$= (4/3) × π × (0.000216 – 0.000125)$
$= (4/3) × π × 0.000091 ≈ 3.82 × 10^{-4}$ m³
Step 2: Calculate weight of the metal shell
$W = ρ_m × V × g$
$= 7800 × 3.82 × 10^{-4} × 9.8 ≈ 29.3$ N
Step 3: Calculate buoyant force (upthrust)
$F_b = ρw × $ volume displaced $× g$
Volume displaced $= (4/3) × π × R^3 = (4/3) × π × 0.06^3 ≈ 9.05 × 10^{-4}$ m³
$F\_b = 1000 × 9.05 × 10^{-4} × 9.8 ≈ 8.87$ N
Step 4: Net downward force
$F\_net = W – F\_b = 29.3 – 8.87 = 20.43$ N

76. *c)* Shellac is a natural resin used as a binder to fix the pigment or dye to the writing surface.

77. *b)* Ferrous sulfate reacts with tannic acid to form the deep black pigment in iron gall ink.

78. *d)* Urea is a synthetic (chemical) fertilizer, whereas the rest are natural.

79. *a)* These supply N, P, and K respectively.

80. *c)* A gene is a segment of DNA that contains the instructions for protein synthesis, acting as a

"manual" by coding for specific proteins through the processes of transcription and translation. The other options are incorrect because a chromosome is a larger structure containing many genes, a ribosome is the site of protein synthesis (not the manual), and the nucleus is the organelle where DNA is stored.

81. *d)* Reduction of hydrogen occurs when hydrogen is a reactant and gets oxidized to form water, losing electrons in the process. In option D, hydrogen reacts with iron oxide to produce water and iron, indicating hydrogen's reduction role as it helps reduce iron oxide to iron.

82. *d)* A redox reaction involves a change in oxidation states. In option D, Zn is oxidized from 0 to +2, and Ag is reduced from +1 to 0, indicating a redox reaction. The other reactions do not involve changes in oxidation states, so they are not redox reactions.

83. *c)* The sugar-phosphate backbones of DNA strands are negatively charged due to phosphate groups, and they interact through electrostatic forces, often stabilized by positively charged ions like Mg^{2+} in the surrounding environment. Hydrogen bonding occurs between base pairs, not the backbones. Covalent bonding links nucleotides within a strand, and van der Waals forces are weaker and less specific here.

84. *a)* Total electrons in CO_2 = electrons from carbon + electrons from oxygen = 6 C + 2 × 8 (O) = 6 + 16 = 22 electrons.

85. *a)* CO has 6 electrons from C and 8 from O, totaling 14 electrons.
CN⁻: C (6) + N (7) + 1 extra electron (due to the negative charge) = 14 electrons.

86. *b)* CrO_5 contains two peroxide linkages (one in each O_2^{2-} unit).

87. *c)* At constant pressure and temperature, a chemical reaction proceeds spontaneously in the direction where the Gibbs free energy (Gibbs energy) decreases, as this indicates the reaction's thermodynamic favorability.

88. *c)* Group IA elements (alkali metals) typically form ionic chlorides with the formula XCl (e.g., NaCl, KCl). They do not form acidic oxides (their oxides are basic), nor do they form volatile chlorides like XCl_2 or insoluble chlorides like XCl_4.

89. *d)* Bond dissociation energy increases down the group for halogens (except F_2, which has a lower value due to lone pair repulsion). The correct order is $Cl_2 > Br_2 > I_2 > F_2$. The given order ($F_2 > Cl_2$) is incorrect.

90. *b)* Non-metallic character increases across a period in the periodic table and decreases down a group. B (Boron) is in Group 13, Period 2, and is a metalloid with more non-metallic properties compared to Be (Beryllium), Mg (Magnesium), and Al (Aluminum), which are metals.

91. *a)* Hugo de Vries, a Dutch botanist, introduced the term "mutation" in 1901 while working on Oenothera lamarckiana, where he observed sudden changes in traits, leading to his mutation theory. Additionally, de Vries, along with Carl Correns and Erich von Tschermak, independently rediscovered Mendel's laws of inheritance in 1900, building on Gregor Mendel's earlier work.

92. *a)* Glucagon, produced by the alpha cells of the pancreas, acts in opposition to insulin by promoting the breakdown of glycogen into glucose (glycogenolysis), increasing glucose production (gluconeogenesis), and enhancing the breakdown of fats (lipolysis) and proteins. This raises blood glucose levels and mobilizes energy stores, counteracting insulin's role in lowering blood glucose and promoting energy storage. While cortisol,

epinephrine, and norepinephrine also have roles in metabolism, glucagon is the primary hormone with a direct and comprehensive opposing effect to insulin across carbohydrate, protein, and lipid metabolism.

93. *c)* The fovea centralis, a small central pit within the macula lutea of the retina, is responsible for the highest visual acuity in the human eye. It contains a high density of cone photoreceptors and lacks blood vessels, allowing for sharp, detailed vision, especially in bright light. The macula lutea surrounds the fovea and also contributes to central vision but with lower acuity. The optic disc is the blind spot where the optic nerve exits the eye, lacking photoreceptors. The optic chiasma is a structure in the brain where optic nerve fibers cross, not part of the eye itself.

94. *b)* In the retina, the correct order of cells from the innermost layer (closest to the vitreous humor) to the outermost layer (closest to the choroid) is ganglion cells, bipolar cells, and then photoreceptor cells (rods and cones). Light enters the eye and passes through the ganglion and bipolar cell layers before reaching the photoreceptors, which detect light and initiate the visual signal. The signal then travels back through the bipolar cells to the ganglion cells, whose axons form the optic nerve to transmit visual information to the brain.

95. *a)* The recombinant Hepatitis B vaccine is produced using yeast, specifically Saccharomyces cerevisiae. The yeast is genetically engineered to express the Hepatitis B surface antigen (HBsAg), which is then purified and used to formulate the vaccine. This method ensures the vaccine is safe and effective, as it does not contain live virus. E. coli and Streptococcus are bacteria sometimes used in other recombinant protein production, but not typically for the Hepatitis B vaccine. Microsporum, a type of fungus, is not used in vaccine production.

96. *a)* The described features indicate that the plant is adapted for wind pollination (anemophily). Separate male and female flowers (dioecious or monoecious with separate sexes) reduce self-pollination, while long filaments with exposed stamens in male flowers allow pollen to be easily released into the air. The long, feather-like stigmas in female flowers increase the surface area to capture airborne pollen. These traits are typical of wind-pollinated plants like grasses or corn. Bees and birds are attracted to colorful flowers with nectar, which are not mentioned, and water pollination is rare and typically involves submerged plants.

97. *a)* Detritivores are organisms that feed on detritus, which includes dead organic matter and waste. They break down this material into smaller particles, aiding in decomposition. While decomposers (like fungi and bacteria) primarily break down organic matter at a chemical level, detritivores (like earthworms, millipedes, and certain insects) physically consume detritus, often working alongside decomposers in the ecosystem. Primary consumers are herbivores that feed on autotrophs (producers), secondary consumers are carnivores or omnivores that feed on primary consumers, and autotrophs produce their own food via photosynthesis or chemosynthesis—none of which fit the definition of detritivores.

98. *c)* The meristem, particularly the shoot apical meristem, is the best plant explant for raising virus-free plants. Meristems are regions of actively dividing cells at the tips of shoots and roots, and they are often free of viruses because viruses typically do not infect these rapidly dividing cells or are unable to keep up with the cell division rate. This makes meristem culture a common technique in plant tissue culture for producing virus-free plants. Embryos may carry viruses from the parent plant, vessels are not a typical explant source, and leaves are more likely to be infected as they are exposed and mature tissues.

99. *d)* Synapsis is the process during meiosis (specifically in prophase I) where two homologous chromosomes pair up and align closely, allowing for the exchange of genetic material through crossing over. This ensures genetic recombination and proper chromosome segregation. The other options are incorrect: a male and female gamete fuse during fertilization, not synapsis; mRNA and ribosomes interact during translation; and spindle fibres attach to the centromere during mitosis or meiosis to pull chromosomes apart, not for synapsis.

100. *a)* Microfilaments (I) are involved in protoplasmic streaming (1), as they, made of actin, facilitate cytoplasmic movement in plant cells and amoeboid motion in other cells.
Microtubules (II) are responsible for the movement of chromosomes (2) during cell division, as they form the mitotic spindle that pulls chromosomes apart.
Intermediate filaments (III) play a role in animal cell-cell junctions (3), providing structural support and anchoring junctions like desmosomes in animal tissues.

101. *a)* Lieutenant General Sadhna Saxena Nair became the first woman to assume the role of Director General Medical Services (Army) on August 1, 2024.

102. *a)* The Indian Coast Guard launched its first indigenously built Pollution Control Vessel named 'Samudra Pratap' in Goa on August 29, 2024.

103. *d)* INS Arighat, India's second nuclear-powered ballistic missile submarine, was commissioned into the Indian Navy on August 29, 2024, in the presence of Defence Minister Rajnath Singh.

104. *a)* The Rajasthan government approved a 33% reservation for women in the state police force in September 2024.

105. *c)* Deepali Thapa became the first Indian schoolgirl to win a title at the Asian Schoolgirls Boxing Championships held in Al Ain, UAE.

106. *a)* Prashanti Ram, an Indian-origin author, received the Singapore Literature Award for her short story "Nine Yard Saree," which likely resonated with the award's criteria for excellence in English literature.

107. *b)* Group Captain Shukla is part of the SpaceX Axiom-4 mission and a Gaganyaan programme aspirant.

108. *a)* The IAU named two newly discovered Martian craters after Mursan in Uttar Pradesh and Hilsa in Bihar, honoring these Indian cities as part of their naming convention for celestial features.

109. *c)* INS Sumedha docked in Jakarta under India's SAGAR vision.

110. *a)* The historical mound cemetery 'Moidan' in Assam was added to the UNESCO World Heritage List, recognizing its cultural and historical significance, likely tied to the region's ancient burial practices.

111. *c)* Tundra – Fishing is a key livelihood due to limited vegetation.

112. *c)* Prairies – Temperate grasslands found mainly in USA and Canada.

113. *b)* Equatorial Region – Hot, humid climate with dense evergreen forests and rich biodiversity.

114. *b)* Taiga – Dominated by coniferous forests used for softwood timber.

115. *b)* Jamshedpur is a major iron and steel centre in India.

116. *c)* Manchuria is China's traditional hub for heavy industries like iron and steel.

117. *c)* Silicon Valley is famous for IT and high-tech industries.

118. *b)* The Midlands is the heart of industrial England, especially Birmingham.

119. *c)* The Sun, Moon, and Earth are in a straight line – Happens during new/full moon.

120. *b)* Ocean current direction deflection – Due to Earth's rotation.

121. *c)* Kuroshio Current – A warm current of the Pacific Ocean.

122. *b)* Tidal range – It is the vertical difference between high and low tide.

123. *c)* The date changes by 24 hours when crossing the IDL.

124. *b)* The IDL is roughly 180° from the Prime Meridian.

125. *d)* Samoa and Tokelau shifted west of the IDL in 2011 to match business hours with Australia/NZ.

126. *c)* There is a full 24-hour difference; if it's Sunday west of IDL, it's Monday east of it.

127. *c)* Monsoon climates have seasonal wind shifts bringing summer rain and dry winters.

128. *c)* Marine West Coast – Found on west coasts at mid-latitudes with moderate temperature and consistent rainfall.

129. *b)* Tundra – Cold, treeless region with permafrost and minimal precipitation.

130. *b)* Savanna – Alternates between wet and dry seasons; supports grasses and sparse trees.

131. *a)* Parliamentary system, Rule of Law, and Bicameralism are British influences. Judicial Review is from the U.S.

132. *a)* Judicial Review, Secularism, and Free and Fair Elections are part of the Basic Structure. Parliamentary sovereignty is not.

133. *a)* Articles 14, 19, and 21 are Fundamental Rights. Article 44 is a Directive Principle.

134. *a)* Articles 352 (National), 356 (State), and 360 (Financial) relate to emergencies. Article 324 is for Election Commission.

135. *d)* Seventh Schedule (Union, State, Concurrent lists), Eleventh Schedule (Panchayati Raj). Second and Eighth not directly administrative.

136. *a)* Sarkaria, Rajamannar, and Punchhi focused on Centre-State relations and administrative reforms. Mandal was on OBC reservations.

137. *a)* Supremacy of Constitution, Division of Powers, and Independent Judiciary are federal features. India does not have Dual Citizenship.

138. *a)* GOI Act 1935, British system, and U.S. Bill of Rights influenced our Constitution. Weimar Constitution influenced other nations, not India directly.

139. *a)* EC handles Parliament/Assembly elections, nomination scrutiny, and party recognition. Local body elections are under State Election Commissions.

140. *a)* Delhi and Puducherry have legislative assemblies. Chandigarh and Andaman & Nicobar Islands do not.

141. *d)* Coercive Acts – These were seen as punitive laws that violated colonial rights.

142. *c)* France formally allied with the American colonies after this key American victory.

143. *a)* Lenin – This slogan captured the demands of the Russian masses.

144. *c)* Russia withdrew from World War I under harsh terms to Germany.

145. *a)* S.N. Banerjee was not part of the Young Bengal Movement.

146. *a)* Champaran was a Gandhian mass movement, not revolutionary.

147. *c)* All Governor Generals are matched correctly.

148. *a)* Third Anglo-Afghan War was after 1919, post EIC dissolution.

149. *c)* All were key features of the 1935 Act.

150. *c)* All sessions had those historic associations.