CHEMICAL COORDINATIONAND INTEGRATION

Scientific words and their meaning

Scientific vocabulary is crucial for clearing NEET as it helps in understanding and interpreting questions, comprehending texts and case studies, reviewing study materials, effectively communicating answers, and accessing supplementary resources. Developing a strong command of scientific vocabulary will significantly contribute to your success in the NEET examination. The answer choices in NEET questions may contain scientific terms that need to be understood and evaluated. By having a strong grasp of scientific vocabulary, you can decipher the meaning of the answer choices and select the most appropriate one.

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1. Neurons: Cells in the nervous system that transmit electrical signals.

2. Nerve fibers: Long, slender extensions of neurons that transmit signals between different parts of the body.

3. Innervation: The process of supplying nerves to a particular organ or tissue.

4. Cellular functions: The activities and processes that occur within individual cells to maintain their structure and perform specific tasks.

5. Coordination: The harmonious functioning of different organs or systems in the body to achieve a common goal.

6. Integration: The process of combining or merging different elements to create a unified whole.

7. Hormones: Chemical messengers produced by endocrine glands that are released into the bloodstream and regulate various physiological functions in the body.

8. Endocrine system: The collection of glands and tissues that secrete hormones directly into the bloodstream for systemic distribution.

9. Physiological functions: The biological processes and activities that occur within living organisms to maintain homeostasis and enable life-sustaining functions.

10. Regulation: The process of controlling or adjusting something to maintain balance or stability.

11. Neural system: The complex network of neurons and supporting cells that make up the nervous system.

12. Point-to-point: Referring to the direct and specific communication between individual neurons or nerve fibers.

13. Rapid: Occurring quickly or with high speed.

14. Short-lived: Lasting for only a brief period of time.

15. Cells: The basic structural and functional units of all living organisms.

16. Endocrine Glands: Ductless glands that secrete hormones directly into the bloodstream, regulating various physiological processes in the body.

17. Hormones: Non-nutrient chemicals produced in trace amounts that serve as intercellular messengers, influencing the activity of target cells or organs in the body.

18. Invertebrates: Animals without a backbone or vertebral column, possessing simple endocrine systems with a limited number of hormones for coordination of physiological functions.

19. Vertebrates: Animals with a backbone or vertebral column, characterized by a complex endocrine system involving a diverse range of chemicals acting as hormones to provide coordination and regulation.

20. Human Endocrine System: The collection of endocrine glands and organs in the human body that produce and secrete hormones, playing a vital role in maintaining homeostasis, growth, development, and reproductive functions.

21. Homeostasis: The ability of an organism to maintain stable internal conditions despite external fluctuations, regulated in part by the endocrine system.

22. Physiology: The branch of biology that deals with the functions and processes of living organisms, including the study of how hormones regulate bodily functions.

23. Intercellular Communication: The process by which cells communicate with each other through chemical signals, including hormones, to coordinate and regulate various physiological activities.

24. Target Cells/Organs: Specific cells or organs in the body that possess receptors for a particular hormone, allowing them to respond and be influenced by the hormone's actions.

25. Neuroendocrinology: The scientific field that focuses on the interactions between the nervous system and the endocrine system, studying the roles of hormones in modulating neuronal activity and behavior.

26. Endocrine Glands: Glands in the human body that secrete hormones directly into the bloodstream, playing a vital role in regulating various physiological processes.

27. Hormone-Producing Diffused Tissues/Cells: Dispersed tissues or cells throughout the body that produce hormones, contributing to the overall endocrine system.

28. Pituitary Gland: A small gland located at the base of the brain that controls and regulates the functions of other endocrine glands. It secretes a variety of hormones that influence growth, reproduction, and metabolism.

29. Pineal Gland: A small gland located in the brain that produces melatonin, a hormone involved in regulating sleep-wake cycles and other biological rhythms.

30. Adrenal Glands: Paired glands located on top of the kidneys that secrete hormones such as cortisol (involved in stress response) and adrenaline (responsible for the "fight-or-flight" response).

31. Pancreas: An organ located behind the stomach that serves both digestive and endocrine functions. It produces hormones, including insulin and glucagon, involved in regulating blood sugar levels.

32. Parathyroid Glands: Small glands located near the thyroid gland that produce parathyroid hormone, which regulates calcium levels in the blood and bones.

33. Thymus: A gland located in the chest that plays a crucial role in the development and maturation of immune cells, particularly T-cells, during childhood.

34. Gonads: Reproductive organs responsible for producing sex hormones and gametes. In males, the testes produce testosterone, while in females, the ovaries produce estrogen and progesterone.

35. Gastrointestinal Tract: The organs involved in digestion, including the stomach, small intestine, and large intestine, which also produce hormones that aid in digestion and regulate appetite.

36. Liver: A vital organ involved in various metabolic processes, including the production of important hormones such as insulin-like growth factor 1 (IGF-1) and angiotensinogen.

37. Kidney: Apart from its primary role in filtering waste products from the blood, the kidney also produces hormones like erythropoietin (stimulates red blood cell production) and renin (involved in regulating blood pressure).

38. Heart: The muscular organ responsible for pumping blood throughout the body. It produces atrial natriuretic peptide (ANP) and brain natriuretic peptide (BNP), hormones involved in regulating blood pressure and fluid balance.

39. Hypothalamus: A region of the brain that acts as a link between the nervous system and the endocrine system. It controls the pituitary gland's

hormone secretion and plays a vital role in maintaining homeostasis.

40. Melatonin: A hormone produced by the pineal gland, involved in regulating sleep-wake cycles and other biological rhythms.

41. Thyroxine: A hormone produced by the thyroid gland, responsible for regulating metabolism, growth, and development.

42. Cortisol: A hormone produced by the adrenal glands, involved in the body's response to stress and helps regulate metabolism, immune response, and blood pressure.

43. Insulin: A hormone produced by the pancreas, responsible for regulating blood sugar levels by facilitating the uptake of glucose into cells.

44. Glucagon: A hormone produced by the pancreas, which raises blood sugar levels by stimulating the breakdown of stored glycogen in the liver.

45. Parathyroid Hormone: A hormone produced by the parathyroid glands, involved in regulating calcium levels in the blood and bones.

46. Neurosecretory Cells: Specialized cells found in the hypothalamus that produce and release hormones.

47. Nuclei: Groups of neurosecretory cells in the hypothalamus responsible for synthesizing and secreting hormones.

48. Releasing Hormones: Hormones produced by the hypothalamus that stimulate the secretion of pituitary hormones. They regulate the synthesis and release of specific hormones by the pituitary gland.

49. Inhibiting Hormones: Hormones produced by the hypothalamus that inhibit the secretion of pituitary hormones. They regulate the release of specific hormones by the pituitary gland.

50. Gonadotropin Releasing Hormone (GnRH): A hypothalamic hormone that stimulates the synthesis and release of gonadotropins (follicle-stimulating hormone and luteinizing hormone) by the pituitary gland, regulating the reproductive system.

51. Somatostatin: A hormone produced by the hypothalamus that inhibits the release of growth hormone from the pituitary gland, regulating growth and metabolism.

52. Axons: Fiber-like extensions of neurons through which hypothalamic hormones travel to reach their target organs or glands.

53. Portal Circulatory System: A specialized system of blood vessels that connects the hypothalamus and the pituitary gland, allowing hypothalamic hormones to reach and regulate the functions of the anterior pituitary.

54. Anterior Pituitary: The front portion of the pituitary gland that is regulated by hypothalamic hormones released into the portal circulatory system. It

produces and releases various hormones that control numerous physiological processes.

55. Posterior Pituitary: The back portion of the pituitary gland that is directly regulated by neural signals from the hypothalamus. It stores and releases hormones produced by the hypothalamus, such as oxytocin and vasopressin (antidiuretic hormone).

56. Neural Regulation: The direct control exerted by the hypothalamus over the posterior pituitary through neural signals, allowing for immediate and rapid hormone release.

57. Diencephalon: A part of the forebrain that includes the hypothalamus, thalamus, and other structures involved in various sensory and regulatory functions in the brain.

58. Sella Turcica: A bony cavity located at the base of the skull where the pituitary gland is situated.

59. Adenohypophysis: The anterior portion of the pituitary gland, also known as the anterior pituitary, responsible for producing and releasing several hormones including growth hormone (GH), prolactin (PRL), thyroid-stimulating hormone (TSH), adrenocorticotropic hormone (ACTH), luteinizing hormone (LH), follicle-stimulating hormone (FSH), and melanocyte-stimulating hormone (MSH).

60. Pars Distalis: The major region of the anterior pituitary responsible for synthesizing and

releasing most of the hormones, including GH, PRL, TSH, ACTH, LH, and FSH.

61. Pars Intermedia: A smaller region of the anterior pituitary that produces melanocyte-stimulating hormone (MSH). In humans, the pars intermedia is usually merged with the pars distalis.

62. Neurohypophysis: The posterior portion of the pituitary gland, also known as the posterior pituitary, responsible for storing and releasing hormones produced by the hypothalamus, including oxytocin and vasopressin.

63. Oxytocin: A hormone stored and released by the posterior pituitary that stimulates uterine contractions during childbirth and promotes milk ejection from the mammary glands.

64. Vasopressin (Antidiuretic Hormone or ADH): A hormone stored and released by the posterior pituitary that acts on the kidneys, promoting water and electrolyte resorption, reducing urine production, and preventing excessive water loss. It helps maintain water balance in the body.

65. Gigantism: A condition caused by the over-secretion of growth hormone (GH) during childhood, leading to excessive growth and abnormally tall stature.

66. Pituitary Dwarfism: A condition resulting from low secretion of growth hormone (GH) during childhood, leading to impaired growth and stunted stature.

67. Acromegaly: A disorder characterized by excessive secretion of growth hormone (GH) in adults, especially during middle age. It leads to abnormal growth and enlargement of certain body parts, including the face, hands, and feet.

68. Prolactin: A hormone produced by the anterior pituitary that stimulates the growth and development of mammary glands in females and the production of milk (lactation).

69. Thyroid-Stimulating Hormone (TSH): A hormone produced by the anterior pituitary that stimulates the synthesis and secretion of thyroid hormones (thyroxine and triiodothyronine) from the thyroid gland, regulating metabolism and energy balance.

70. Adrenocorticotropic Hormone (ACTH): A hormone produced by the anterior pituitary that stimulates the synthesis and secretion of glucocorticoid hormones (such as cortisol) from the adrenal cortex, involved in regulating stress response, metabolism, and immune function.

71. Luteinizing Hormone (LH): A hormone produced by the anterior pituitary that stimulates gonadal activity in both males and females. In males, LH stimulates the synthesis and secretion of androgens (such as testosterone) from the testes.

72. Follicle-Stimulating Hormone (FSH): A hormone produced by the anterior pituitary that stimulates the growth and development of ovarian

follicles in females and plays a role in spermatogenesis in males.

73. Melanocyte-Stimulating Hormone (MSH): A hormone produced by the pars intermedia of the pituitary gland (merged with pars distalis in humans) that acts on melanocytes, regulating pigmentation.

74. Melatonin: A hormone produced and released by the pineal gland. Melatonin plays a crucial role in regulating the 24-hour (diurnal) rhythm of our body, including the sleep-wake cycle, body temperature, and other biological processes. It also influences metabolism, pigmentation, the menstrual cycle, and the body's defense capability.

75. Sleep-Wake Cycle: The natural pattern of sleep and wakefulness that recurs in a 24-hour period. Melatonin helps maintain the normal rhythms of the sleep-wake cycle, promoting sleepiness at night and wakefulness during the day.

76. Body Temperature: Melatonin is involved in the regulation of body temperature, helping to promote a drop in body temperature in the evening, which is important for initiating sleep.

77. Metabolism: Melatonin has influences on metabolism, although its specific role and mechanisms are still being studied.

78. Pigmentation: Melatonin may have an impact on pigmentation processes in the body, although the exact mechanisms are not fully understood.

79. Menstrual Cycle: Melatonin can influence the menstrual cycle in females, potentially affecting the timing and regularity of menstrual periods.

80. Defense Capability: Melatonin is involved in the modulation of the immune system and has been shown to have antioxidant and immunomodulatory effects, potentially impacting the body's defense capability against infections and diseases.

81. Endocrine Glands: Ductless glands that secrete hormones directly into the bloodstream, regulating various physiological processes in the body.

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121. Scrotal Sac: The scrotal sac is a pouch of skin and tissue that houses the testes in males. It is located outside the abdomen and provides a cooler environment for proper sperm production and function.

122. Seminiferous Tubules: These are the functional units of the testes where sperm production takes place. They are coiled tubes lined with specialized cells that undergo spermatogenesis, the process of producing sperm cells.

123. Leydig Cells (Interstitial Cells): These cells are found in the intertubular spaces of the testes. They are responsible for producing androgens, particularly testosterone, which is essential for the development and maintenance of male reproductive organs and secondary sexual characteristics.

124. Androgens: Androgens are a group of hormones that include testosterone. They are primarily produced by the Leydig cells in the testes. Androgens play a crucial role in regulating the development, maturation, and functions of male accessory sex organs, as well as influencing secondary sexual characteristics such as muscle growth, facial and axillary hair growth, and voice deepening.

125. Epididymis: The epididymis is a coiled tube located on the back of each testis. It serves as a site for the maturation and storage of sperm before they are transported to the vas deferens.

126. Vas Deferens: The vas deferens is a muscular tube that transports mature sperm from the

epididymis to the ejaculatory ducts. During ejaculation, sperm travel through the vas deferens to reach the urethra.

127. Seminal Vesicles: The seminal vesicles are glands located near the base of the bladder. They produce a fluid rich in fructose and other nutrients that provide energy for sperm. This fluid, along with sperm from the testes and secretions from other glands, forms semen.

128. Prostate Gland: The prostate gland is a walnut-sized gland located below the bladder and surrounding the urethra. It produces a milky fluid that helps nourish and protect sperm. The prostate gland's secretions are also a significant component of semen.

129. Urethra: The urethra is a tube that carries urine from the bladder to the external opening of the penis. In males, it serves a dual function as a passage for both urine and semen during ejaculation.

130. Spermatogenesis: Spermatogenesis is the process of sperm cell development and maturation within the seminiferous tubules of the testes. It involves a series of cell divisions and transformations that ultimately result in the production of mature spermatozoa capable of fertilizing an egg.

131. Libido: Libido refers to a person's overall sexual drive or desire for sexual activity. Androgens, such as testosterone, can influence libido by acting on the central nervous system and regulating sexual behavior.

132. Anabolic Effects: Androgens, particularly testosterone, can have anabolic effects on protein and carbohydrate metabolism. Anabolic effects refer to the stimulation of protein synthesis and the building of new tissue, including muscle tissue. These effects contribute to increased muscle mass and strength.

133. Ovary: The primary female sex organ located in the abdomen, responsible for producing eggs (ova) during each menstrual cycle. It also produces estrogen and progesterone hormones.

134. Ovum: A mature egg cell produced by the ovary, capable of fertilization by sperm.

135. Menstrual cycle: The recurring monthly cycle in females, characterized by the preparation of the reproductive system for potential pregnancy. It involves the release of an egg, thickening of the uterine lining, and shedding of the lining if fertilization does not occur.

136. Steroid hormones: Chemical messengers produced by various organs, including the ovaries. Estrogen and progesterone are examples of steroid hormones.

137. Estrogen: A group of hormones primarily synthesized and secreted by the growing ovarian follicles. Estrogens play a crucial role in stimulating the growth and activities of female secondary sex organs, development of ovarian follicles, appearance of female secondary sex characteristics, mammary gland development, and regulation of female sexual behavior.

138. Progesterone: A hormone secreted mainly by the corpus luteum, which forms after ovulation. Progesterone supports pregnancy by preparing the uterus for implantation of a fertilized egg. It also acts on the mammary glands, stimulating the formation of alveoli (milk-storing sac-like structures) and milk secretion.

139. Corpus luteum: A temporary endocrine structure that forms in the ovary after the release of an egg. It secretes progesterone and a smaller amount of estrogen.

140. Secondary sex organs: Organs that develop and function primarily for reproductive purposes. In females, they include the fallopian tubes, uterus, and vagina.

141. Secondary sex characteristics: Physical traits that distinguish males from females and develop during puberty under the influence of sex hormones. In females, examples include breast development, widening of hips, and changes in voice pitch.

142. Mammary glands: Glands in the breasts responsible for producing and secreting milk in response to hormonal signals, particularly during pregnancy and lactation.

143. Alveoli: Sac-like structures within the mammary glands that store milk and participate in its production and secretion during breastfeeding.

144. Atrial natriuretic factor (ANF): A peptide hormone secreted by the atrial wall of the heart.

ANF plays a crucial role in regulating blood pressure. When blood pressure increases, ANF is released, causing dilation of blood vessels and resulting in a reduction of blood pressure.

145. Erythropoietin: A peptide hormone produced by juxtaglomerular cells in the kidney. Erythropoietin stimulates the production of red blood cells (erythropoiesis) in the bone marrow.

146. Gastrin: A peptide hormone secreted by endocrine cells in the stomach and duodenum. Gastrin acts on gastric glands, stimulating the secretion of hydrochloric acid and pepsinogen, which are important for digestion.

147. Secretin: A peptide hormone released by endocrine cells in the small intestine. Secretin acts on the exocrine pancreas, stimulating the secretion of water and bicarbonate ions. This helps in neutralizing the acidic chyme (partially digested food) entering the small intestine from the stomach.

148. Cholecystokinin (CCK): A peptide hormone produced by endocrine cells in the small intestine. CCK acts on both the pancreas and the gall bladder. It stimulates the secretion of pancreatic enzymes from the pancreas and the release of bile juice from the gall bladder, aiding in the digestion and absorption of fats.

149. Gastric inhibitory peptide (GIP): A peptide hormone secreted by endocrine cells in the small intestine. GIP inhibits gastric secretion and motility,

regulating the emptying of the stomach and slowing down the digestive processes.

150. Growth factors: Hormones secreted by various non-endocrine tissues, essential for normal tissue growth, repair, and regeneration. Growth factors play important roles in cell proliferation, differentiation, and survival. They include substances like insulin-like growth factors (IGFs), epidermal growth factor (EGF), platelet-derived growth factors (PDGFs), and fibroblast growth factors (FGFs), among others.

151. Hormone receptors: Proteins located in target tissues that bind to specific hormones, enabling them to produce their effects. Receptors can be membrane-bound (on the cell membrane) or intracellular (inside the target cell, often in the nucleus). Each receptor is specific to a particular hormone, providing specificity in hormone signaling.

152. Membrane-bound receptors: Hormone receptors present on the cell membrane of target cells. When a hormone binds to a membrane-bound receptor, it triggers the activation of intracellular signaling pathways, often involving the generation of second messengers such as cyclic AMP, IP3, or calcium ions. These second messengers regulate cellular metabolism and mediate the physiological responses to hormones.

153. Intracellular receptors: Hormone receptors located inside the target cell, often found in the

nucleus. Steroid hormones, iodothyronines (thyroid hormones), and other similar hormones interact with intracellular receptors. When a hormone binds to an intracellular receptor, the hormone-receptor complex can directly influence gene expression or chromosome function, leading to changes in protein synthesis and cellular activities.

154. Peptide hormones: Hormones that belong to the peptide, polypeptide, or protein family. Examples include insulin, glucagon, pituitary hormones, and hypothalamic hormones. Peptide hormones generally interact with membrane-bound receptors and initiate second messenger signaling cascades to regulate cellular metabolism.

155. Steroid hormones: Hormones derived from cholesterol, such as cortisol, testosterone, estradiol, and progesterone. Steroid hormones interact with intracellular receptors, often located in the nucleus, and modulate gene expression. They play essential roles in various physiological processes, including metabolism, development, and reproduction.

156. Iodothyronines: Hormones produced by the thyroid gland, including thyroxine (T4) and triiodothyronine (T3). Iodothyronines also interact with intracellular receptors and regulate gene expression. They are involved in controlling metabolism, growth, and development.

157. Amino acid derivatives: Hormones derived from amino acids, such as epinephrine (adrenaline). These hormones can act through membrane-bound

receptors, generating second messengers, or interact with intracellular receptors. They play vital roles in the regulation of the stress response, cardiovascular function, and other physiological processes.

158. Second messengers: Small molecules or ions generated in response to hormone binding to membrane-bound receptors. Examples include cyclic AMP (cAMP), inositol triphosphate (IP3), and calcium ions (Ca++). Second messengers relay the hormonal signal from the cell membrane to the intracellular compartments, modulating cellular metabolism and initiating physiological responses.

159. Gene expression: The process by which information encoded in genes is used to produce functional molecules, such as proteins. Hormones that interact with intracellular receptors can influence gene expression, either by activating or inhibiting specific genes, leading to the synthesis of specific proteins and subsequent cellular responses.

160. Chromosome function: The overall organization and activity of chromosomes within a cell. Hormone-receptor complexes that interact with the genome can directly impact chromosome function, influencing processes such as DNA replication, transcription, and chromatin remodeling, ultimately affecting cellular functions and development.

161. Thymus gland: A gland located in the chest, behind the sternum. The thymus gland plays a crucial role in the development and maturation of T-

lymphocytes, a type of white blood cell involved in cell-mediated immunity. The thymus secretes thymosins, hormones that promote T-cell differentiation and the production of antibodies.

162. Testes: The male reproductive organs located in the scrotum. The testes produce androgens, primarily testosterone, which are responsible for the development and maintenance of male reproductive organs, secondary sexual characteristics, sperm production (spermatogenesis), and male sexual behavior.

163. .Ovaries: The female reproductive organs located in the lower abdomen. The ovaries produce estrogen and progesterone, which regulate the growth and development of female reproductive organs, secondary sexual characteristics, and the menstrual cycle. Progesterone also plays a role in pregnancy maintenance, mammary gland development, and lactation.

Following terms appear in OLD NCERT BOOK

164. Humoral immunity: Refers to the component of the immune system that involves the production of antibodies by B-lymphocytes (B cells) and their subsequent release into the body fluids, such as blood and lymph. Antibodies, also known as immunoglobulins, are protein molecules that recognize and bind to specific foreign substances called antigens. Once bound to an antigen, antibodies can neutralize or eliminate the antigen, marking it for destruction by other immune cells or components of the immune system. Humoral

immunity provides defense against extracellular pathogens, such as bacteria and viruses circulating in body fluids, and is an essential part of the adaptive immune response.

165. Catecholamines: Refer to a group of neurotransmitters and hormones that are derived from the amino acid tyrosine. The main catecholamines include dopamine, norepinephrine (noradrenaline), and epinephrine (adrenaline). These substances play critical roles in the central nervous system as neurotransmitters and in the peripheral nervous system and endocrine system as hormones. Catecholamines are involved in various physiological processes, including the regulation of mood, arousal, attention, and the "fight-or-flight" response. They bind to specific receptors on target cells, initiating a cascade of biochemical reactions that result in their physiological effects. Catecholamines are synthesized and released by specific neurons in the brain and by the adrenal glands, which are located on top of the kidneys.

166. Gluconeogenesis: It is a metabolic pathway in which glucose is synthesized from non-carbohydrate precursors, primarily amino acids and lactate, in the liver and kidneys. It is a vital process that occurs when the body needs glucose but is unable to obtain it from dietary sources or glycogen stores. Gluconeogenesis helps maintain normal blood glucose levels during fasting, prolonged exercise, or periods of low carbohydrate intake. It involves a series of enzymatic reactions that convert these non-carbohydrate molecules into glucose,

which can then be released into the bloodstream for use by other tissues and organs. Gluconeogenesis is regulated by several hormones and metabolic signals to ensure a steady supply of glucose for energy production and other cellular processes.

167. Lipolysis: It is the process of breaking down triglycerides, which are stored fat molecules, into fatty acids and glycerol. It is a key step in the metabolism of fats for energy production. Lipolysis primarily occurs in adipose tissue (fat cells) and is regulated by hormonal signals, such as the release of hormones like epinephrine (adrenaline) and norepinephrine (noradrenaline). These hormones bind to specific receptors on adipocytes (fat cells), activating enzymes that break down triglycerides into fatty acids and glycerol. The fatty acids can then be released into the bloodstream and transported to other tissues where they can be utilized as a source of energy. Lipolysis is an important process during periods of fasting, exercise, or energy deficit when the body needs to mobilize stored fats to meet energy demands.

168. Proteolysis is the breakdown of proteins into smaller polypeptides or amino acids. Uncatalysed, the hydrolysis of peptide bonds is extremely slow, taking hundreds of years. Proteolysis is typically catalysed by cellular enzymes called proteases, but may also occur by intra-molecular digestion.

169. Glycogenesis is a biological process that involves the synthesis and formation of glycogen, which is a storage form of glucose in animals,

including humans. It occurs primarily in the liver and muscles, where glucose molecules are converted and linked together to form glycogen chains. This process is facilitated by the enzyme glycogen synthase.

170. Diurnal: It refers to a biological rhythm or pattern that occurs on a 24-hour cycle, typically corresponding to the daily light-dark cycle. It is commonly used to describe biological processes or behaviors that exhibit regular fluctuations or variations over a 24-hour period.