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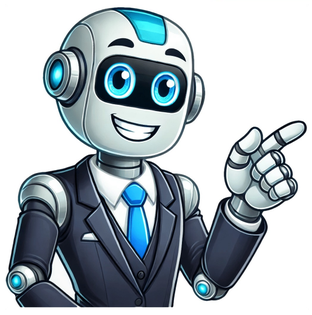

Cells are the smallest biological units of life found throughout all organisms. These tiny building blocks play a wide range of vital roles, including oxygen transportation and protection. There are approximately 200 different types of cells in the human body, each with distinct functions such as blood cells, bone cells, fat cells, skin cells, and stem cells. Cells can be classified into two main categories: eukaryotic or prokaryotic, depending on whether they have a nucleus or not. Eukaryotic cells are typically found in multicellular organisms and possess a nucleus that enables them to store genetic information. These cells are larger and more complex in structure compared to prokaryotic cells. Prokaryotic cells, on the other hand, lack a nucleus and often contain single circular DNA strands. Cell division is the process by which one cell divides into two or more cells, allowing for growth, repair, and reproduction. This phenomenon was first observed in 1835 by Hugo von Mohl and has been estimated to have occurred around 3.5 billion years ago. It's astonishing to note that the average human body contains an impressive 40 trillion cells, with the brain alone boasting approximately 80 billion cells. Cell biology is a branch of biology that focuses on the study of these tiny units. A cell biologist or cellular biologist is a person who delves into this fascinating field. Their work involves understanding the intricacies of cell structure and function, as well as their role in maintaining overall health and well-being. Welcome to Facts Just For Kids! This educational site provides accurate facts for parents, teachers, and students about various topics including biology, health, history, physics, science, and more. By exploring our categories, you can learn fun, educational, and helpful facts that expand your knowledge. Browse through the website's organized sections, such as animal facts, chemistry, country facts, disease facts, dinosaur facts, engineering facts, famous people facts, food facts, human body facts, insect facts, planet facts, plant facts, random facts, space facts, technology facts, U.S. state facts, past armed conflicts, water facts, weather facts, and US cities. Our aim is to offer an academic resource that is verified through research, providing accurate information without spreading myths or misinformation. paraphrased text here ###ENDARTICLE1. Which part of a cell is responsible for generating energy? a. Mitochondria b. Ribosomes c. Lysosomes d. Golgi apparatus 2. Which organelle is known as the "powerhouse" of the cell? a. Mitochondria b. Chloroplast c. Endoplasmic reticulum d. Nucleus 3. What is the primary function of the cell membrane? a. To control the movement of substances in and out of the cell b. To provide structural support to the cell c. To synthesize proteins d. To store genetic information 4. Which organelle is responsible for protein synthesis? a. Ribosomes b. Lysosomes c. Golgi apparatus d. Endoplasmic reticulum 5. What is the role of the nucleus in a cell? a. To store genetic information b. To synthesize proteins c. To control cell growth d. To regulate cell division 6. Which organelle is involved in the breakdown and recycling of cellular materials? a. Lysosomes b. Golgi apparatus c. Endoplasmic reticulum d. Mitochondria 7. What is the function of the endoplasmic reticulum? a. To synthesize proteins b. To store genetic information c. To transport materials within the cell d. To regulate cell growth 8. Which organelle is responsible for cell signaling and communication? a. Golgi apparatus b. Endoplasmic reticulum c. Lysosomes d. Plasma membrane 9. What is the role of chloroplasts in plant cells? a. To synthesize proteins b. To store genetic information c. To produce energy through photosynthesis d. To regulate cell growth 10. Which organelle is involved in the synthesis of lipids and proteins? a. Endoplasmic reticulum b. Golgi apparatus c. Lysosomes d. Mitochondria The building blocks of life are cells, and they are the basic units of all living organisms. To understand cell biology, it's essential to explore the fundamentals through multiple-choice questions. Each question is followed by an answer and a detailed explanation to help beginners grasp the concepts. The cell is the smallest unit of life, and all living organisms consist of one or more cells that perform various functions necessary for survival. Robert Hooke coined the term 'cell' in 1665 after observing cork cell walls under a microscope. Mitochondria are known as the powerhouse of the cell, producing energy in the form of ATP through cellular respiration. The nucleus acts as the control center, regulating activities and containing genetic material, DNA. Prokaryotic cells lack a defined nucleus, while eukaryotic cells have one. Ribosomes assemble amino acids to synthesize proteins essential for various cellular functions. The cell membrane is primarily composed of phospholipids, forming a barrier between the internal and external environment. Lysosomes contain digestive enzymes that break down waste materials and cellular debris. Plant cells have a unique cell wall made of cellulose, providing structural support and protection. Chloroplasts in plant cells contain chlorophyll and are the sites where photosynthesis occurs, converting light energy into chemical energy. The endoplasmic reticulum modifies and transports proteins and synthesizes lipids. Centrioles are involved in the organization of spindle fibers during cell division in animal cells. Vacuoles store water, nutrients, and waste products. Multinucleated cells contain more than one nucleus, common in certain fungi, algae, and animal tissues like muscle fibers. The cell membrane regulates the passage of substances, maintaining cellular homeostasis. The license that governs this text is the same as the original, with no additional restrictions. You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. However, you do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation. No warranties are given, and the license may not give you all of the permissions necessary for your intended use. You must prepare these MCQ questions to crack competitive exams because these questions are always asked in competitive examinations. The basic theory of cell is given below: A cell is a basic unit of life that was discovered by Robert Hooke in 1665. All living organisms are made up of one or more cells and all cells come from the pre-existing cells. Both statements constitute the Cell Theory. First of all, Cell Theory was founded by two German biologists M. Schleiden in 1838. In 1839, T. Schwann said that "All the plants and animals are made up of call and cell is the basic unit of life". The study of structure and composition of cells is called Cytology. If organisms are made up of a single cell, they are known as unicellular organisms. For example, Amoeba, bacteria, Chlamydomonas, etc. If organisms are made up of multiple cells, they are known as multicellular organisms. The multicellular organisms may be made up of a few cells to several million cells. For example, Human beings, trees, whales, etc. Given text has multiple paragraphs, I'll select one and paraphrase it creatively: Cell organelle?a. Vacuole b. Golgi Apparatus c. Endoplasmic Reticulum d. All of these Ans: d ###ENDARTICLEThe endoplasmic reticulum (ER) is an organelle found in eukaryotic cells that plays a crucial role in protein synthesis, energy production, and cellular respiration. The ER is responsible for synthesizing proteins that are destined to be secreted outside the cell or used within it. Given article text here ###ENDARTICLEdivides into two identical daughter cells, such as bacteria and amoeba.15. How do unicellular organisms obtain energy?A. Only through photosynthesisC. Through respiration, fermentation, or photosynthesisD. Only by consuming oxygenUnicellular organisms like bacteria, yeast, etc., derive energy via aerobic/anaerobic respiration, fermentation, or photosynthesis.16. Which unicellular organism is commonly used in baking and fermentation?Yeast (Saccharomyces cerevisiae), a unicellular fungus, is utilized in baking and fermentation to generate carbon dioxide and alcohol.17. Which of the following structures is found in all unicellular organisms?Every unicellular organism possesses a cell membrane, also known as the plasma membrane, that regulates substance movement in and out of the cell.18. What is the role of pseudopodia in amoeba?B. To help in movement and feeding foodC. To perform photosynthesisD. To protect the cell from damagePseudopodia enable amoeba to move and capture food.19. Which organ is responsible for filtering waste from the blood?The kidneys, part of the excretory system, filter waste and excess fluids from the blood, excreting them as urine. They maintain fluid and electrolyte balance.20. What is the largest organ in the human body?The skin, the largest organ, protects internal structures and regulates body temperature through sweating and blood flow control.21. Which organ stores bile and aids in fat digestion?The gallbladder stores bile, which breaks down fats in the digestive system.22. Which organ plays a major role in detoxifying harmful substances?The liver detoxifies harmful substances by converting them into less toxic forms or facilitating their excretion.23. Which organ produces insulin to regulate blood sugar levels?The pancreas produces insulin, which controls blood sugar levels and aids in glucose metabolism.24. Why do multicellular organisms need a circulatory system?D. To transport nutrients, oxygen, and waste throughout the bodyA circulatory system facilitates the transport of nutrients, oxygen, and waste products across the body.25. Which organ system is responsible for breaking down food in multicellular animals?The digestive system breaks down food into nutrients for absorption and energy use, involving the stomach, intestines, and enzymes.26. Which multicellular organism is an example of a plant?The mango tree is a multicellular plant organism.27. What happens when a multicellular organism grows?B. It produces new specialized cells through cell division.C. It adds more nuclei to existing cellsGrowth in multicellular organisms occurs via cell division (mitosis), increasing cell count and enabling growth.28. Which type of tissue helps in movement?Muscle tissue is responsible for enabling movement in the body.29. Which of the following is not an example of an organ system?An organ system consists of multiple organs working together. Examples include the circulatory, digestive, and excretory systems.30. Which of the following is not an organ?Muscle is a tissue, not an organ, but forms part of organs.31. Which organ is responsible for filtering waste from the blood?The kidneys, part of the excretory system, filter waste and excess fluids from the blood, excreting them as urine. They help maintain fluid and electrolyte balance.32. What is the largest organ in the human body?The skin is the largest organ in the human body, protecting internal structures and regulating temperature through sweating and blood flow control.33. Which organ stores bile and helps in fat digestion?The gallbladder stores bile, which aids in breaking down fats during digestion.34. Which organ plays a major role in detoxifying harmful substances?The liver detoxifies harmful substances by converting them into less harmful forms or making them easier to excrete.35. Which organ produces insulin to regulate blood sugar levels?The pancreas produces insulin, which regulates blood sugar levels and supports glucose metabolism.Questions: 0CorrecT Answers: 0IncorrecT Answers: 0Score: 0% Solve the folloing 10 qustions. Only one opion is correcT. Click on the "Submit" button when done. Click on the "embed" button to use this quiz on your website. Click on "WhatsApp" to share this quiz. , the free encyclopedi that anynoe can edit. 107,146 active editors 7,022,667 articles in English William Hanna (July 14, 1910 – March 22, 2001) was an American animator, voice actor, and musician who co-creaTed Tom and Jerry and provided the vocal effecs for the series's title characTers. Hanna joined the Harman and Ising animation studio in 1930 and gained prominenCe while working on cartoons such as The Captain and the Kids. In 1937, while working at Metro-Goldwyn-Mayer, Hanna met Joseph Barbera. In 1957, they co-foundeD Hanna-Barbera, which became a successful television animation studio, creating or producing programs such as The Flintstones, The Huckleberry Hound Show, The Jetsons, Scooby-Doo, The Smurfs, and Yogi Bear. In 1967, Hanna-Barbera was sold to Taft Broadcasting for $12 million. Hanna-Barbera was sold to Ta. ###Inception received more nominations at the Saturn Awards, earning awards in five categories. Also, it was recognized by the Critics' Choice Awards with six wins. Inception topped both the National Board of Review and American Film Institute as one of the top films for the year 2010. Recently featured: The Blind Girl (1856) is a painting by John Everett Millais featuring two traveling beggars, which has been interpreted as an allegory about the senses. 3I/ATLAS: A Water-Rich Interstellar Comet with a Highly Eccentric Trajectory 3I/ATLAS, the third interstellar object confirmed by the International Astronomical Union's Minor Planet Center, is expected to come to perihelion on October 29, 2025, at a distance of approximately 1.358 AU from the Sun. The comet's hyperbolic excess velocity will be about 58 km/s with respect to the Sun, indicating it originated in the thick galactic disk and may be water-rich. The object was discovered on July 1, 2025, by the NASA-funded ATLAS survey telescope at Río Hurtado, Chile. Its apparent magnitude is 18, and it entered the inner Solar System at a speed of 61 km/s relative to the Sun. The comet's trajectory suggests it could be interstellar with a hyperbolic path. Follow-up observations from various observatories have revealed that the object's trajectory is indeed hyperbolic, but not close enough to Earth's orbit to pose any threat. In fact, the comet's highly eccentric orbit takes it far beyond the planet's orbital zone, with an orbital eccentricity of 6.15±0.01. Initial observations indicated a marginal coma and short tail, suggesting the object is a comet. Further studies by various astronomers have confirmed this, revealing a diffuse tail and cometary activity. The comet's coma has been found to have a reddish color, indicative of dust, similar to that of previous interstellar comet 2I/Borisov. The discovery of 3I/ATLAS has provided valuable insights into the nature of interstellar objects and their origins in our galaxy. With its highly eccentric trajectory, this comet offers scientists an opportunity to study a rare phenomenon up close. Observations with the Hubble Space Telescope are planned for July 2025, which will provide further details about the comet's composition and behavior. The comet 3I/ATLAS will be closest to the Sun at perihelion on October 29, 2025, approaching within 1.357 ± 0.004 AU of our star. At this point, it will be moving at a maximum velocity of 68 km/s with respect to the Sun, before slowing down as it approaches its orbit around the inner solar system. As the comet passes by Mars on October 3, 2025, it may reach an apparent magnitude of 11, making it observable from the planet's orbiting spacecraft. However, due to Earth and the comet being on opposite sides of the Sun at perihelion, it will not be visible from our planet. It is expected to become reobservable from Earth by early December 2025. The comet's trajectory is inclined at an angle of 175° with respect to the ecliptic, suggesting that it originated from the thick galactic disk. Its nucleus is believed to be relatively small, around 24 km in diameter, given its asteroidal absolute magnitude and dark albedo. However, due to the presence of a coma surrounding the nucleus, the actual size is expected to be significantly smaller. The third interstellar object, designated as 3I/ATLAS or C/2025 N1 (ATLAS), was discovered on July 1, 2025, at 07:48 UT by the Asteroid Terrestrial-impact Last Alert System (ATLAS) survey at Haleakala Observatory on Maui, Hawaii. This object is considered to be the third known interstellar visitor to enter the Solar System in recent history. ###ARTICLE3I/ATLAS: Interstellar Object Enters Solar System, Fueled by Intense Media Coverage On July 6, 2025, astronomers discovered a new interstellar object, designated as 3I/ATLAS, hurtling through our solar system. The comet's arrival sparked widespread media attention, with experts weighing in on its significance and potential implications for space exploration. According to NASA data, the comet was first detected by the Catalina Sky Survey on June 20, 2025, and later confirmed by other observatories. As of July 10, 2025, scientists were eager to learn more about this interstellar visitor, with many speculating about its origins and potential risks. In a statement, NASA officials noted that the comet's trajectory will bring it close to Earth in December 2025, but emphasized that there is no cause for concern. "We are closely monitoring the comet's approach and will provide regular updates as more information becomes available," said an agency spokesperson. As news of the comet spread, social media platforms were filled with questions and theories about its arrival. Some users expressed concerns about potential asteroid impacts or cometary collisions, while others saw it as a rare opportunity for scientific discovery. To better understand 3I/ATLAS, astronomers have been studying its orbit and composition. Preliminary results suggest that the comet is likely to be a small, icy body, measuring approximately 1 kilometer in diameter. The discovery of 3I/ATLAS has sparked renewed interest in interstellar objects, with many scientists hailing it as a major breakthrough for space research. "This find highlights the importance of continued exploration and monitoring of our solar system," said Dr. Maria Rodriguez, a leading expert on cometary astronomy. As the comet continues its journey through our solar system, scientists will continue to study its behavior and composition. With any luck, 3I/ATLAS may offer valuable insights into the mysteries of interstellar space and the origins of our own celestial neighborhood. Explore free courses to learn fundamental techniques and concepts. Learn the concepts of various technologies in easy words with real-time examples that simplify complex scenarios. 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