



Lesson Plan

The Agriculture Career Challenge Trivia Game

Created: 04/2023 by the National FFA Organization

Description of Lesson: *Introduce careers and career focus areas in the agriculture industry through this team-based competitive quiz.*

Student Learning Objectives:

After completing these activities, students will ...

1. Identify careers in the agriculture industry.
2. Review careers in the agriculture industry.
3. Work in a team to gain teamwork skills.

Suggested Grade Level:

Grades 9 and 10 (This lesson is written so instructors can scale up or down based on class needs.)

Suggested Time: 60 minutes (*Time requirements may vary based upon student understanding and class schedule.)

Resources/References:

1. Website: AgExplorer (2023), AgExplorer.FFA.org
2. Playlist: <https://open.spotify.com/playlist/5rL3pLxnaiDpHr38lcpOWS?si=T5hBJvyZQT6Fz5WhRzv6cw&nd=1>
 - a. This list does require a free Spotify account.

Equipment and Supplies Needed:

1. A copy of the "Team Career Trivia" worksheet for each team of students
2. Scissors
3. Writing utensil
4. Copy of the "Teacher Score Sheet"

Cross-Curricular Connections:

Science	English/Language Arts	Technology	Engineering	Mathematics
Identify, describe and review careers in the agriculture industry and determine how they impact the industry.	Identify, describe and review careers related to English/language arts and determine how they impact the industry.	Identify, describe and review careers in technology and determine how they impact the industry.	Identify, describe and review careers in engineering and determine how they impact the industry.	Identify, describe and review careers in mathematics and determine how they impact the industry.

Virtual Instruction Ideas:

Students can be grouped virtually or could be used as a scavenger hunt or review for an upcoming quiz, activity, etc.

Student Activity Sheets:

Direct access to student activity sheets without lesson plan or answer key for easy upload to a learning management system or printing for classwork.

- Questions and Answers for Each Game: ([Word](#)) ([Google](#))
- Teacher Score Sheet: ([Word](#)) ([Google](#))
- Student Answer Cards and Student Score Tracker: ([PDF](#))
- Agriculture Career Questions- No Answers: ([Word](#)) ([Google](#))

These Activities are Aligned to the Following Standards:

AFNR Performance Element

- CS.02. Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.
- CS.05. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.

FFA Precept

- FFA.PL-A.Action: Assume responsibility and take the necessary steps to achieve the desired results, no matter what the goal or task at hand.
- FFA.PL-C.Vision: Visualize the future and how to get there.
- FFA.PL-E.Awareness: Understand personal vision, mission and goals.
- FFA.PL-F.Continuous Improvement: Accept responsibility for learning and personal growth.
- FFA.PG-I.Professional Growth: Assume responsibility for attaining and improving upon the skills needed for career success.
- FFA.CS-M.Communication: Effectively interact with others in personal and professional settings.
- FFA.CS-N.Decision Making: Analyze a situation and execute an appropriate course of action.

Common Career Technical Core

- AG2. Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.
- AG5. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.

NASDCTec

- AGC09.02 Select, research and examine critical aspects of career opportunities in one or more AFNR career pathways in order to gain an understanding of the breadth of occupations within this cluster.

Common Core – Reading: Informational Text

- CCSS.ELA-Literacy.RI.9-10.2 Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- CCSS.ELA-Literacy.RI.9-10.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).

AFNR Career Ready Practices

- CRP.02. Apply appropriate academic and technical skills. Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive.
- CRP.04. Communicate clearly, effectively, and with reason. Career-ready individuals communicate thoughts, ideas and action plans with clarity, whether using written, verbal and/or visual methods.

Partnership for 21st Century Skills

- Communication
- Critical Thinking and Problem Solving
- Flexibility and Adaptability
- Initiative and Self-direction
- Leadership and Responsibility

Lesson Plan:

1. **Introduction:** This activity can be used in the following ways:
 - (1) Introduce career content to students to gain interest through a competitive game prior to learning about agriculture careers through AgExplorer.
 - (2) Review agricultural careers learned from AgExplorer by career focus area.
 - (3) Review agriculture careers learned from AgExplorer from every career focus area.
 - (4) The [quiz questions, without answers](#), could be used as a review guide
 - (5) The [quiz questions, without answers](#), could be used as a summative evaluation about agriculture careers.
*Note: There is a question about agriculture education in each focus area and will not have an entire set of question on agriculture education.
2. **Activity:** Split students into equal teams of two or more. Hand each team the "Team Career Trivia" worksheet. Students will then follow the directions on the worksheet to accomplish the following:
 - a. Step 1: Cut out all 18 cards and the score tracker card.
 - b. Step 2: With your team, come up with a class-appropriate team name and write the name on ALL 18 cards. If your team name is missing, you will miss out on points for that question, regardless of a correct answer!
 - c. Step 3: Determine one person on your team who will be the "scribe" and write the answers and one person on your team who will serve as the "runner" to turn in your cards.Game Play Directions:
 - (1) Each team has 18 cards and has determined a team name.
 - (2) Each round has three questions with six rounds total (18 questions all together). During the first three rounds, students can wager either one, two, or three points. However, they can only wager this amount once per round. Example, if the first question is "What color is the sky?" they would want to wager the highest number possible if they are confident in their answer being correct (i.e., blue). If they are not confident, they could wager a two or one. With only three questions in a round, they can only wager each number once, so they must be strategic! In Rounds 4 to 6 the point values increase to two, four, and six.
 - (3) Students will work in their teams to answer each question. To receive points, they must have a team name on the card, a valid wager on the card (reminder: a point value cannot be reused in a round) and a legible answer. Tip: Students should be encouraged to keep track of their wagers and points received on the "Score Tracker" just in case!
 - (4) You will read the selected question out loud to the class twice. You can choose if you want to give the multiple-choice answer options or make it more challenging by just offering up the question alone.
 - (5) Next, play a song of your choosing, or check out this [playlist](#) for songs. (This list does require a free Spotify account.) Students have the entire length of one song to write their team name, wager, and answer on their answer card and turn it into you BEFORE the end of the song. If they do not have the answer in prior to the song ending, they do not receive any points.
 - (6) Record scores on the attached score sheet.
 - (7) At the end of each round, total up the scores and announce the standings.
 - (8) The team with the highest score at the end of all 18 questions/six rounds is the winner!
3. **Exit Ticket:** Review careers on [AgExplorer.FFA.org](https://www.ffa.org/agexplorer) to learn more about the various careers available in the agriculture industry and describe which agriculture career aligns with what you want to do some day in the future. Be sure to explain your answer.

Team Career Trivia

Aligned to the following standards:

CS.02; CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-E; FFA.PL-F; FFA.PG-I; FFA.CS-M; FFA.CS-N; AG2;
AG5; AGC09.02; CCSS.ELA.RI.9-10.2; CCSS.ELA.RI.9-10.4; CRP.02; CRP.04

Directions:

1. Step 1: Cut out all 18 cards below and the score tracker card.
2. Step 2: With your team, come up with a class-appropriate team name and write the name on ALL 18 cards. If your team name is missing, you will miss out on points for that question, regardless of a correct answer!
3. Step 3: Determine one person on your team who will be the "scribe" and write the answers and one person on your team who will serve as the "runner" to turn in your cards.

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Team Name: _____
Answer:

Point Wager: _____

Name: _____

Team Name: _____

Answer:

Point Wager: _____

Team Name: _____

Answer:

Point Wager: _____

Team Name: _____

Answer:

Point Wager: _____

Team Name: _____

Answer:

Point Wager: _____

Team Name: _____

Answer:

Point Wager: _____

Team Name: _____

Answer:

Point Wager: _____

Team Name: _____

Answer:

Point Wager: _____

Team Name: _____

Answer:

Point Wager: _____

Score Tracker

Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Question 1: Wager: _____ Points Earned: _____	Question 1: Wager: _____ Points Earned: _____	Question 1: Wager: _____ Points Earned: _____	Question 1: Wager: _____ Points Earned: _____	Question 1: Wager: _____ Points Earned: _____	Question 1: Wager: _____ Points Earned: _____
Question 2: Wager: _____ Points Earned: _____	Question 2: Wager: _____ Points Earned: _____	Question 2: Wager: _____ Points Earned: _____	Question 2: Wager: _____ Points Earned: _____	Question 2: Wager: _____ Points Earned: _____	Question 2: Wager: _____ Points Earned: _____
Question 3: Wager: _____ Points Earned: _____	Question 3: Wager: _____ Points Earned: _____	Question 3: Wager: _____ Points Earned: _____	Question 3: Wager: _____ Points Earned: _____	Question 3: Wager: _____ Points Earned: _____	Question 3: Wager: _____ Points Earned: _____
Total from Round 1: _____	Total from Round 2: _____	Total from Round 3: _____	Total from Round 4: _____	Total from Round 5: _____	Total from Round 6: _____
*Reminder: Rounds 1-3 can wager 1, 2 or 3 points. Rounds 4-6 can wager 2, 4 or 6 points. Each wager can only be used once per round!					

Grand Total: _____

Teacher Score Sheet

Team Name	Round 1	Round 1 Total	Round 2	Round 2 Total	Round 3	Round 3 Total	Round 4	Round 4 Total	Round 5	Round 5 Total	Round 6	Round 6 Total	Grand Total
Example: Boilermakers	Q1 3 Q2 0 (wrong answer) Q3 2	5	Q1 1 Q2 0 Q3 0	1	Q1 2 Q2 3 Q3 0	5	Q1 4 Q2 6 Q3 2	12	Q1 6 Q2 0 Q3 0	6	Q1 4 Q2 2 Q3 0	6	35
	Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		
	Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		
	Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		
	Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		
	Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		Q1 Q2 Q3		

*Reminder: Rounds 1-3 can wager 1, 2 or 3 points. Rounds 4-6 can wager 2, 4 or 6 points. Each wager can only be used once per round!

Questions and Answers for Each Trivia Game Version

Agribusiness Systems

1. _____ work to achieve corporate objectives and effectively manage a company or group of companies. The key responsibility is to provide direction for the company while attaining overall profitability and growth.
 - a. Chief financial officers (CFOs)
 - b. Chief executive officers (CEOs)
 - c. Chief operating officers (COOs)
 - d. Agriculture lawyers
2. _____ use radio or television to report on stories that are relevant to viewers interested in agriculture but may also be used by regional and national outlets reaching viewers with no direct connection to agriculture.
 - a. Agriculture journalists
 - b. Social media strategists
 - c. Agriculture broadcasters
 - d. Public relations specialists
3. _____ work to hire top talent into their respective companies from targeted agricultural colleges and universities. They target undergraduate and graduate students directly and are involved in planning summer internships.
 - a. Recruiters
 - b. College recruiters
 - c. Extension agents
 - d. Agriculture educators
4. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
5. The _____ field encompasses activities that contribute to successful agricultural production. This can include crop production, farm equipment, seed supply marketing, natural resources and animal services.
 - a. plant systems
 - b. animal systems
 - c. biotechnology systems
 - d. agribusiness systems
6. The career of _____ examines financial records and statements to ensure accounts are correct and in balance while ensuring laws and regulations are met. Further, this person would prepare tax returns and recompense taxes for clients while looking for ways to improve efficiency in spending and present a summary of recommendations to clients.
 - a. accounting manager
 - b. accountant
 - c. administrative assistant
 - d. agricultural financial service representative
7. _____ serve as middlemen between commodity traders, commodity marketers and company administration. They determine the appropriate prices for products and services using market research and knowledge gained from working closely with the marketing and sales teams.
 - a. Pricing coordinators
 - b. Accountants
 - c. Accounting managers
 - d. Administrative assistants
8. _____ are responsible for creating and maintaining a positive company brand for both employees and clientele. They work closely with managers in the process of company actions to ensure maximum exposure and positive relations with the public.
 - a. Chief financial officers (CFOs)
 - b. Chief operating officers (COOs)
 - c. Public relations specialists
 - d. Production managers

Name: _____

9. A _____ is responsible for analyzing markets and helping companies strategize ways for them to be more competitive. Using research marketing tools, this person conducts market research, tracks different kinds of data and identifies patterns.
 - a. **market analyst**
 - b. marketing manager
 - c. digital marketing specialist
 - d. product development manager/demand planner
10. This individual provides a service role by greeting people and attending to inquiries made by customers or company staff. This person may also be required to take charge of outgoing mail, arrange for courier deliveries and assist in simple clerical work, such as copying, typing, receiving payments and ordering office supplies.
 - a. **Receptionist**
 - b. Administrative assistant
 - c. Accounting manager
 - d. Auditor
11. A _____ is responsible for the management of goods, materials, services and/or equipment of either a division of a company or an entire company. This person is responsible for ensuring that companies have enough materials for production and coordinates finished products leaving the facility through contract negotiations and service programs.
 - a. parts manager
 - b. pricing coordinator
 - c. **supply chain manager**
 - d. storage and hygiene coordinator
12. This individual is responsible for leading the health, safety and environmental programs at organizations to reduce accidents and other injuries that are related to work. This person designs and monitors safety programs using data trends and makes necessary changes to the program such as increasing safety measures when needed.
 - a. **Safety director**
 - b. Food safety specialist
 - c. Regulatory scientist
 - d. Sanitation coordinator
13. _____ are responsible for planning, coordinating and organizing the production schedules for manufacturing and processing facilities. They make their production schedules based on forecasted product demands, available supplies, labor availability and machine capacities.
 - a. Office managers
 - b. **Schedulers**
 - c. Data processors
 - d. Customer service representatives
14. _____ are responsible for selling an agricultural product or service for their companies over the phone or via email. They manage the accounts within their territories, maintain positive relationships with existing customers — providing customer service and addressing issues when they arise — and form relationships with new and potential customers.
 - a. **Inside sales representatives**
 - b. Sales representatives: food, seed, feed, fuel
 - c. Sales representatives: equipment and ag systems
 - d. Export sales managers
15. A _____ oversees the coordinating, managing and reporting of all domestic shipments (within the same country) and international inbound/outbound shipments of products. This person understands the ins and outs of creating shipments, packing and fulfilling orders and coordinating various moving parts to ensure orders are shipped out on time and accurately.
 - a. **logistics specialist**
 - b. export sales manager
 - c. supply chain manager
 - d. port terminal manager
16. This individual is responsible for creating and implementing plans that promote and support diversity and inclusion for an organization. Further, these individuals tailor diversity communications and messaging to diverse audiences and actively communicate with all staff members for their input on the development of policies and strategies.
 - a. Human resources generalist
 - b. **Diversity and inclusion lead**
 - c. Human resources manager
 - d. Corporate recruiter

Name: _____

17. _____ are responsible for helping companies strengthen sales, boost brand awareness and accomplish other goals in international markets. They will perform market research to determine which markets are profitable and identify potential clients. Additionally, they will cultivate strong relationships with clients by delivering tailored solutions.
 - a. **International business development associates**
 - b. Process/Continuous improvement managers
 - c. Marketing specialists
 - d. Social media strategists
18. A _____ is responsible for managing the daily operations and production on poultry farms and hatcheries. This person ensures the safety and welfare of both staff and animals while planning, organizing, directing and controlling functions of the farm. Managing chick care and maintenance and coordinating the outside work with service technicians is also an important piece to this career.
 - a. supply chain manager
 - b. **live operations manager**
 - c. farm operations/production manager
 - d. operations manager

Agricultural Technology Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems
2. This type of engineer works closely with the management team to maximize efficiencies of plant operations and implement process improvement projects. This engineer can help an ethanol plant with cost-saving projects, such as energy reclaim, reduction, yield optimization and chemical usage reduction.
 - a. Mechanical engineer
 - b. Electrical engineer
 - c. **Ethanol engineer**
 - d. Mine engineer
3. This person uses programs and equipment to design, build, test, produce and improve mobile apps. This individual also provides businesses with apps for consumers or for staff use to increase productivity or provide staff resources.
 - a. **Information technology (IT) app developer**
 - b. Information technology (IT) configurator
 - c. Information technology (IT) programmer
 - d. Information technology (IT) software developer
4. These individuals provide support and technical assistance to growers who are using precision technologies on their farms. Using these technologies, they create and implement plans for farmers to enhance the health of their fields.
 - a. Automation technicians/coordinators
 - b. Bioinformatics scientists
 - c. Mine engineers
 - d. **Precision agriculture specialists**
5. _____ use engineering principles to design procedures, products and machinery to make them more efficient and functional. They work throughout a machinery's life cycle including its design, development, installation, testing and maintenance. These engineers focus on agricultural systems such as farming systems.
 - a. **Mechanical engineers**
 - b. Electrical engineers
 - c. Agricultural engineers
 - d. Software engineers
6. _____ work in a support role for the payment of wages to employees. They ensure that employees' salaries get paid correctly and on time and that the employer complies with relevant tax laws and other rules.
 - a. Accountants
 - b. Accounting managers
 - c. Administrative assistants
 - d. **Payroll administrators**

Name: _____

7. These individuals develop, manage and track multimedia content on their employer's social media pages. They manage a day-to-day social content calendar for social media channels, drive engagement and research social media platforms to create reports.
 - a. Precision agriculture specialists
 - b. **Social media strategists**
 - c. Agriculture broadcasters
 - d. Information technology (IT) app developers
8. A _____ is responsible for helping organizations use their computer systems in a way that supports organizational goals. This person creates improved systems by collaborating with colleagues to determine where computer software and technologies can help employees in their roles.
 - a. **computer system analyst**
 - b. information technology (IT) software developer
 - c. information technology (IT) configurator
 - d. information technology (IT) programmer
9. This individual is responsible for providing support and technical assistance to growers for the implementation of digital products and tools on their farms. This person provides knowledge and advice for specific technological products such as precision machinery and soil sampling.
 - a. **Digital farming lead**
 - b. Data analyst
 - c. Geospatial analytics scientist
 - d. Precision agriculture specialist
10. A _____ is responsible for supporting agricultural operations by developing and maintaining software. This individual will research, design, evaluate, integrate and maintain software applications that solve agricultural problems such as how to sort fruit using computerized software.
 - a. information technology (IT) configurator
 - b. information technology (IT) programmer
 - c. **software engineer**
 - d. information technology (it) specialist
11. Also known as an unmanned aerial vehicle technicians, these individuals are responsible for the repair and maintenance of unmanned aerial vehicles (UAVs). They perform hands-on work using hand tools, including metallic, structural and electronic component fabrication. Additionally, these individuals will work on the UAV's internal software by installing and updating firmware and software packages, ensuring the aircraft conforms to design and that vehicles are in safe operating condition.
 - a. **Drone technicians**
 - b. Automation technicians/coordinators
 - c. Biostatisticians
 - d. Mechanical engineers
12. A _____ studies how current and proposed laws, government policies and regulations affect individuals, organizations and the community. This person performs detailed research to determine the effectiveness of policy and suggest improvements to provide direction for organizations.
 - a. **policy analyst**
 - b. agricultural literacy and advocacy specialist
 - c. agriculture lobbyist
 - d. agricultural science teacher - secondary
13. _____ are responsible for managing and maximizing the value from technology within an organization or company. They have a strong understanding of their organization's operations and will lead the adoption and implementation of technologies that would help their operations.
 - a. **Technology strategists**
 - b. Information technology (IT) analysts
 - c. Information technology (IT) configurators
 - d. Information technology (IT) programmers
14. These individuals are responsible for ensuring that computer software, operating systems, security tools and business applications are functioning correctly. They perform day-to-day maintenance and repairs including software and computer installations and upgrades. Additionally, they support the organization by providing technical support, automation, security maintenance and troubleshooting on computer systems.
 - a. Information technology (IT) analysts
 - b. **Systems administrators**
 - c. Information technology (IT) configurators
 - d. Information technology (IT) programmers

Name: _____

15. A _____ provides administrative support for the capture and transfer of information for storage, processing or transmitting. This person inputs agricultural data into computers including reports, mailing lists, payroll, staff records and scientific information.
 - a. **data processor**
 - b. administrative assistant
 - c. customer service representative
 - d. dispatcher
16. A _____ designs and develops agricultural equipment and system products that allow farmers to improve the yield of their land. This individual also serves as a technical resource by participating in design reviews and providing input on new projects.
 - a. brand manager
 - b. environmental engineer
 - c. graphic designer
 - d. **design engineer**
17. _____ investigate issues within the environment and design solutions in areas such as water, air pollution and waste management. Additionally, they use scientific data to analyze naturally occurring environmental weather patterns and make recommendations for preserving habitats. They also provide training to fellow employees on environmental compliance practices.
 - a. Environmental science and protection technicians
 - b. **Environmental engineers**
 - c. Environmental scientists and specialists
 - d. Conservationists
18. These individuals are responsible for wiring, troubleshooting, repairing and maintaining the electrical systems that are part of mechanical equipment. Additionally, they perform installation, maintenance and repair of electrical systems. They also assist in developing trainings and reviewing electrical programs and procedures for companies.
 - a. **Mechanical electricians/electronics technicians**
 - b. Electrical engineers
 - c. Mechanical engineers
 - d. Hydraulic technicians

Animal Systems

1. This individual teaches horseback riding lessons to adults and children with emotional, physical or cognitive (the ability to think, learn or remember) disabilities. The goal is to increase independence, mobility (movement) and balance and improve the mental and emotional health of those with special needs.
 - a. **Therapeutic riding instructor**
 - b. Animal/horse trainer
 - c. Bloodstock agent
 - d. Animal caretaker
2. _____ study microorganisms that are found in various environments. They examine bacteria, fungi, viruses and other parasites to see how they grow and interact with the environment in which they are located. Their duties require them to isolate and make cultures of bacteria and other microorganisms to look at their growth.
 - a. **Microbiologists**
 - b. Nematologists
 - c. Environmental scientists and specialists
 - d. Toxicologists
3. _____ remove the internal organs from carcasses during meat processing. This process can include washing out carcasses, cutting and salvaging components of the animal as assigned and inspecting carcasses for quality.
 - a. **Evisceration processors**
 - b. Fermentation scientists
 - c. Food technologists
 - d. Meat inspectors
4. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems

Name: _____

5. Scientists and technicians in _____ careers treat diseased or injured livestock, companion and exotic animals and work to keep them healthy.
 - a. **animal systems**
 - b. agricultural education
 - c. environmental service systems
 - d. natural resources systems
6. _____ oversee and participate in the buying, selling and selection of livestock for companies and individuals. They use their knowledge to track desirable qualities of livestock, average prices and market trends across the industry to make the best purchases for their clients.
 - a. Livestock auctioneers
 - b. Livestock loaders
 - c. Livestock/Meat graders
 - d. **Livestock buyers**
7. This person monitors and moves cattle around a feeding operation. On horses, this individual rides through assigned pens daily and identifies sick animals by observing outward signs of distress. This person segregates sick cattle for treatment by driving them to the nearest hospital pen.
 - a. Livestock auctioneer
 - b. Livestock loader
 - c. **Pen rider**
 - d. Livestock buyer
8. Also known as a pet stylist, this person professionally grooms dogs, cats and other pets. Additionally, this person is responsible for the maintenance of an animal's coat to avoid injury or matting as well as provides customers with specific procedures for their pets to achieve a level of visual appeal.
 - a. Farrier
 - b. **Pet groomer**
 - c. Falconer
 - d. Zoologist
9. Employees in this career assist in daily operations and duties on the farm. This can include checking birds, collecting eggs and feeding. They also assist in breeding programs and maintaining the house and watering/heating system as needed.
 - a. **Poultry farm worker**
 - b. Poultry hatchery manager
 - c. Zoologist
 - d. Port terminal manager
10. The main priority of this professional is to oversee the operational responsibility of the hatchery to ensure performance is at the highest possible level. This includes the management of personnel, eggs and equipment. This person manages and coordinates hatchery activities such as egg pickup, delivery, care, incubation, hatching, grading, vaccination, preparation and shipping of chicks.
 - a. Poultry farm worker
 - b. **Poultry hatchery manager**
 - c. Zoologist
 - d. Port terminal manager
11. People in this career oversee and maintain cattle, equine or sheep on a large land area. They monitor grazing land to ensure livestock are properly fed and assure that their environment is well kept and safe. During droughts, they may need to set up and monitor irrigation systems. Additionally, they identify sick animals, monitor nutrition and determine proper treatment or contact a veterinarian.
 - a. **Ranch manager**
 - b. Herdsperson
 - c. Small animal veterinarian
 - d. Zoologist
12. The goal of a person in this career is to research and provide advice on feed product selection, maintenance feeding programs and modification of diets to meet certain desired outcomes in hoofed animals that chew their cud and usually have stomachs with four chambers. These nutritionists assist in the care of animals including cattle, sheep, llamas and goats.
 - a. Poultry farm worker
 - b. **Ruminant nutritionist**
 - c. Sanitation coordinator
 - d. Nutritionist/Dietitian

Name: _____

13. A _____ is responsible for maintaining the health of animals as well as the diagnosis and treatment of sickness, disease and injury in companion animals. This individual primarily works with dogs and cats with the option of specializing in exotic animals such as rabbits, caged birds and other small pets.
 - a. Zoologist
 - b. **Small animal veterinarian**
 - c. Ruminant nutritionist
 - d. Small ruminant farm worker
14. This individual is responsible for the daily care and maintenance of sheep that are used for meat or wool production or goats that are used for meat or dairy production. Additionally, this person assists in breeding programs, shears sheep yearly, assists in milking operations for dairy goats, cleans the milking parlor after each milking and ensures milk quality by following standards.
 - a. **Small ruminant farm worker**
 - b. Herdsperson
 - c. Ranch manager
 - d. Poultry farm worker
15. _____ manage the daily operations on a farm during the last phase of the grow-out stage (the stage of a market pig's life where pigs are fed and cared for until they are at a market weight of 280 lbs.) of the pig. They are responsible for overseeing all aspects of the health and growth of the animal in an effective and safe manner. They manage and coordinate farm activities such as animal transportation, care, breeding, vaccination and general care of animals.
 - a. Sow farm managers
 - b. **Swine finishing farm managers**
 - c. Swine nursery farm workers
 - d. Toxicologists
16. _____ are doctors of veterinary medicine who diagnose diseases by examining animal tissue and body fluids. They diagnose disease based on examination of organs, tissues and bodies.
 - a. Food animal veterinarians
 - b. Small animal veterinarians
 - c. Veterinary technicians
 - d. **Veterinary pathologists**
17. A _____ works alongside a veterinarian to care for animals and assist in procedures such as physical exams, dental procedures, spaying and neutering, immunizations, diagnosis, treatments and euthanasia. This individual communicates with the veterinarian about the progress of animal treatments and recovery and documents each specific animal treated.
 - a. veterinary assistant
 - b. food animal veterinarian
 - c. small animal veterinarian
 - d. **veterinary technician**
18. This career is responsible for breeding animals based on desirable traits and characteristics. Employees in this career ensure the well-being, health and comfort of the animals and record details of their diet, physical conditions and behavior. They have a strong understanding of animal genetics and are involved across all stages of animals' lives.
 - a. **Animal breeders**
 - b. Breeding managers/multiplication managers
 - c. Animal caretakers
 - d. Animal geneticists

Biotechnology Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems
2. Careers in _____ help make plants more nutritious to eat and enable fish to grow twice as fast along with solving global issues.
 - a. natural resources systems
 - b. environmental service systems
 - c. plant systems
 - d. **biotechnology systems**

Name: _____

3. Who provides reproductive services and research in the areas of embryo creation, IVF (in vitro fertilization), cloning and transgenic (deliberate gene modification) animal production?
 - a. Zoologist
 - b. Embryologist
 - c. Apiary worker
 - d. Farrier
4. _____ design and perform experiments to better understand the molecular processes in cells essential to life. They examine plant, animal or human cells at the molecular level and use that information to understand diseases, create new medical treatments and engineer new plant varieties.
 - a. Zoologists
 - b. Molecular biologists
 - c. Geneticists
 - d. Microbiologists
5. _____ plan, develop, deliver and report on new products that help to drive growth for businesses. They assess the profitability of potential new products by performing market research and determining where their company's products could fit in the market compared to the competition. They are involved in every aspect of product development from ideation to launch.
 - a. Product development managers/demand planners
 - b. Food safety specialists
 - c. Food production supervisors
 - d. Food safety/quality assurance managers
6. A _____ monitors a company's production process to ensure the company follows governmental and third-party food safety regulations. This person conducts audits by performing inspections of buildings, paperwork, employees and equipment, looking for anything that could compromise the quality or safety of a product.
 - a. quality assurance manager
 - b. quality assurance auditor
 - c. food safety specialist
 - d. food safety/quality assurance manager
7. A _____ performs and documents research trials and projects under the supervision of a principal investigator (PI). The type of research that is performed depends on the PI that this individual works for. These tasks typically involve using cutting-edge research techniques and equipment.
 - a. research associate
 - b. research and development technician
 - c. research and development manager
 - d. regulatory scientist
8. These individuals are responsible for the management and execution of all phases of seed production to ensure a high quality, reliable and timely supply is delivered to the facility.
 - a. Field agronomists
 - b. Seed production technicians
 - c. Geneticists
 - d. Seed production agronomists
9. _____ are responsible for managing an organization's trading operations and performing market research. They support the growth of their company by building a strong understanding of market issues and opportunities relevant to their industry.
 - a. Trade managers
 - b. Export documentation specialists
 - c. Export sales managers
 - d. Directors of supply chain
10. _____ are responsible for leading the processes that improve an organization's capability through the alignment of strategy, people, rewards, metrics and management processes. They assess company culture and use that information to design and implement developmental initiatives.
 - a. Organizational development managers
 - b. Human resources generalists
 - c. Human resources managers
 - d. College recruiters
11. A _____ is responsible for managing the movement, storage and distribution of finished goods after they have left the manufacturing line. With the help of warehouse staff, this person ensures trucks are loaded and unloaded properly and all scheduled outbound shipments are delivered on time.
 - a. cotton gin and warehouse manager

Name: _____

- b. finished goods supervisor
 - c. production manager
 - d. fleet manager
- 12. These individuals are responsible for ensuring that computer software, operating systems, security tools and business applications are functioning correctly. They perform day-to-day maintenance and repairs including software and computer installations and upgrades. Additionally, they support the organization by providing technical support, automation, security maintenance and troubleshooting on computer systems.
 - a. Information technology (IT) analysts
 - b. Systems administrators
 - c. Information technology (IT) configurators
 - d. Information technology (IT) programmers
- 13. A(n) _____ is responsible for organizational and clerical tasks, often for multiple people. These tasks could include answering telephones, taking messages, welcoming visitors, organizing travel schedules and compiling and updating records through data entry.
 - a. administrative assistant
 - b. customer service representative
 - c. data processor
 - d. dispatcher
- 14. _____ study chemical compounds to determine what they are composed of and how they interact with other substances. Their research has an important role in understanding the relationship between chemistry and the environment, food, fuel, and human and animal medicines.
 - a. Flavor technologists
 - b. Fermentation scientists
 - c. Analytical chemists
 - d. Formulation chemists
- 15. This individual studies the impact of nutrients in feed on animal reproductive processes to develop methods for improved animal health and more efficient production. This person can be responsible for the daily insemination, heat detection and reproductive maintenance of a herd while also monitoring animal nutritional plans and feed combinations.
 - a. Ruminant nutritionist
 - b. Animal biotechnologist: reproductive or nutritional specialist
 - c. Herd nutritionist
 - d. Herdsperson
- 16. _____ analyze the genetic makeup of animals to discover which genes cause them to behave certain ways. They may also study animal health to determine what causes animals to be immune to specific diseases or fail to thrive in certain environments.
 - a. Artificial insemination technicians
 - b. Animal biotechnologists: reproductive or nutritional specialists
 - c. Animal geneticists
 - d. Research associates
- 17. This individual is responsible for the installation, operation and maintenance of computer and robotic systems used in a variety of agricultural sectors. This person works closely with manufacturing staff helping to improve efficiency, safety and troubleshooting.
 - a. Automation technician/coordinator
 - b. Mechanical engineer
 - c. Hydraulic technician
 - d. Maintenance/Service technician
- 18. _____ are responsible for ensuring that a company's profits and other resources are being used in the most adequate way possible. They study a company's budget to find ways to be more efficient and generate more profits. Using this information, they develop reports and presentations for the company communicating their recommendations and findings.
 - a. Budget analysts
 - b. Controllers
 - c. Financial analysts
 - d. Pricing coordinators

Name: _____

Environmental Service Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems
2. Careers in _____ are available in both urban and rural settings, in the field and lab. Protecting wildlife, maintaining parks, consulting with research groups and keeping green areas are important needs.
 - a. **environmental service systems**
 - b. natural resources systems
 - c. biotechnology systems
 - d. animal systems
3. People in this career look at research and data about our planet's climate. A career in this field can include looking at temperatures, polar ice caps, ocean conditions and greenhouse gases. These individuals utilize climate data to create mathematical models to predict future climate conditions.
 - a. Chief operating officers (COOs)
 - b. **Climate change analysts**
 - c. Molecular biologists
 - d. Conservation officers
4. This individual studies microscopic roundworms that can transmit diseases and/or attack soil, water and insects and their interaction with plants. This person also develops methods and apparatuses (tools and equipment) for securing representative soil samples containing nematodes.
 - a. Molecular biologist
 - b. Conservation officer
 - c. **Nematologist**
 - d. Soil scientist
5. These individuals are responsible for scouting crops and identifying pests that can affect a farmer's harvest. Based on their observations, they make recommendations on treatment and suggest to the farm manager products or other methods to control or prevent problems.
 - a. **Pest control advisors**
 - b. Weed scientists
 - c. Crop advisors
 - d. Soil scientists
6. _____ are responsible for selling products to different companies within the agricultural sector including suppliers, dealers and producers. They focus on selling these products to certain geographical areas by creating growth objectives and sales goals. Furthermore, they develop the trust and confidence of clients through knowledge of products and persuasive presentations and by overcoming objections.
 - a. **Sales representatives: food, seed, feed, fuel**
 - b. Crops systems specialists
 - c. Sales representatives: feed and animal health
 - d. Grain buyers
7. This individual is responsible for creating and maintaining a positive company brand for both employees and clientele. This person works closely with managers in the process of company actions to ensure maximum exposure and positive relations with the public.
 - a. Chief financial officer (CFO)
 - b. Chief operating officer (COO)
 - c. **Public relations specialist**
 - d. Production manager
8. People in this career oversee are responsible for managing a company or organization's environmental impact, resources and plans. They provide leadership to address energy use, resource conservation, waste management and any other aspects of a company that directly impacts their environmental footprint.
 - a. **Sustainability manager**
 - b. Soil scientist
 - c. toxicologist
 - d. Water treatment technician
9. _____ study soil characteristics, map soil types and investigate the responses of soils under certain conditions by researching the chemical composition, structure and properties of soil. They perform scientific

Name: _____

experiments, analyze the data collected and develop solutions to problems using quantitative results (results that can be counted, measured and expressed using numbers).

- a. Crop advisors
 - b. **Soil scientists**
 - c. Crop scouts
 - d. Plant scientists/field agronomists
10. A _____ studies chemicals and their effects on living beings and the environment. The goal is to maintain a good standard of health for the earth and all living things. In agriculture, this individual assists in the evaluation of risks to human health from the use of agricultural products. To do this, this person conducts chemical, physical and toxicological property analyses of chemical substances.
 - a. precision agriculture specialist
 - b. storage and hygiene coordinator
 - c. **toxicologist**
 - d. herds person
11. _____ are responsible for maintaining operational compliance of wastewater treatment systems and the storage of hazardous waste. They perform daily monitoring of plant functions, which includes assessing daily demands and making appropriate adjustments to meet those demands.
 - a. **Water treatment technicians**
 - b. Environmental science and protection technicians
 - c. Environmental scientists and specialists
 - d. Hydrologists
12. This individual acts as a technical representative and subject matter expert on energies such as wind, solar and water. This person works with public and private sector groups to devise and apply smart solutions to critical climate and energy sector problems.
 - a. Energy sales specialist
 - b. Ethanol engineer
 - c. Wind substation technician
 - d. **Alternative energy specialist**
13. _____ are responsible for developing and managing a financially sound and environmentally safe pest management strategy for customers. They work to develop an Integrated Pest Management (IPM) treatment plan that combines common sense and current, comprehensive information on the lifecycle of the identified pests (such as insects and rodents) and an understanding of how they interact with their environment to manage the pests.
 - a. **Integrated pest management specialists**
 - b. Pesticide technicians
 - c. Crop scouts
 - d. Custom applicators
14. An _____ is responsible for designing educational materials that engage youth, teachers and the public about nature and environmental issues. This individual will often lead environmentally based presentations and field tours to help people understand nature through hands-on learning.
 - a. **environmental educator**
 - b. agricultural science teacher - secondary
 - c. extension faculty member
 - d. extension agent
15. _____ are responsible for undertaking and leading a range of hydrology and hydraulics projects for controlling water as it pertains to irrigation, waste development and flood mitigation. They will assess how and the best ways to control water by performing engineering analyses, conducting field assessments and creating water flow designs.
 - a. Environmental science and protection technicians
 - b. Environmental scientists and specialists
 - c. Ethanol engineers
 - d. **Water resource engineers**
16. _____ manage urban and community farms with regards to crop growing, maintenance, preparation and harvesting of plants. They also engage the community to learn more about farming by developing educational materials, carrying out workshops and leading tours. Additionally, they train and coordinate volunteers and participants and assist in the planning of farm programming.
 - a. **Farm program coordinators**
 - b. Agronomists
 - c. Crop systems specialists
 - d. Crop advisors

Name: _____

17. _____ are employed by businesses to evaluate the accuracy and integrity of finances and internal operations of a business. They may act in an advisory role, making recommendations on company financial risks and cost-saving measures. Using this information, they will examine and prepare financial documents in written reports explaining their findings.
 - a. **Auditors**
 - b. Agricultural financial service representatives (loan officers)
 - c. Credit analysts
 - d. Financial analysts
18. _____ are responsible for the management of day-to-day company administrative and operational operations of a business. They are often considered the second in the chain of command and report to the chief executive officer (CEO). They must oversee and direct the entire operations division of a company, which can include manufacturing operations, finance, engineering, purchasing, human resources and administration.
 - a. **Chief operating officers (COOs)**
 - b. Chief financial officers (CFOs)
 - c. Production managers
 - d. Organizational development managers

Food Products and Processing Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems
2. Careers in _____ study the physical, biological and chemical makeup of foods to improve food safety, create better processes, enhance the nutritional value and shelf-life of foods and even develop new flavors!
 - a. biotechnology systems
 - b. **food products and processing systems**
 - c. agribusiness systems
 - d. natural resources systems
3. These individuals give advice to clients on their food selections based on their lifestyles, tastes and health needs. They research and stay up to date with nutritional science. They use their knowledge and turn it into understandable practical advice that can be used to improve their clients' health.
 - a. Auditors
 - b. **Nutritionists/Dietitians**
 - c. Occupational health and safety managers
 - d. Hydrologists
4. These individuals develop and optimize industrial processes for the production and manufacturing of a product. When looking at these processes, it is their goal to improve factors like efficiency, sustainability, quality and safety. They also take overall responsibility for the safe design and operation of the equipment within the area.
 - a. Mechanical engineers
 - b. Mine engineers
 - c. **Process engineers**
 - d. Electrical engineers
5. In this career, a person purchases produce to be made into other products or resold in a retail environment. This individual manages sourcing strategy, including contracts and negotiations, to improve quality and profitability. Additionally, this person is expected to be an expert in matters related to raw product quality, market trends and perishable inventory management.
 - a. Nutritionist/Dietitian
 - b. Produce inspector
 - c. Hydrologist
 - d. **Produce buyer**
6. Who is responsible for improving or creating new methods for processing, canning, freezing, storing, packaging or distributing food? This individual will also coordinate, plan, design and execute product development tasks through all stages of development from small- to large-scale trials.
 - a. Process engineer

Name: _____

- b. **Product development food scientist**
 - c. Hydrologist
 - d. Produce buyer
7. What career is responsible for planning, developing, delivering and reporting on new products that help to drive growth for businesses? These individuals also assess the profitability of potential new products by performing market research and determining where their company's products could fit in the market compared to the competition. They are involved in every aspect of product development from ideation to launch.
- a. Product development food scientists
 - b. Procurement specialists
 - c. **Product development managers/demand planners**
 - d. Production managers
8. This individual is responsible for the management and strategy of a product through the regulatory process, controlling or directing according to rules and laws. Products that are sold in the U.S. are subject to certain regulations based on government requirements.
- a. **Regulatory scientist**
 - b. Research and development manager
 - c. Research scientist
 - d. Procurement specialist
9. _____ are responsible for all activities involved in maintaining the cleanliness of their assigned production area. They are responsible for the day-to-day execution of a sanitation team and coordinate their activities using a master sanitation schedule. They also perform daily monitoring to ensure compliance with quality, health and safety standards.
- a. Process engineers
 - b. Procurement specialists
 - c. Falconers
 - d. **Sanitation coordinators**
10. In the process of slaughtering, this person processes the slaughtering of beef, sheep, goat, fish, pork and poultry to meet site compliance standards and targets. This individual prepares carcasses for cutting by cleaning and removing parts (organs, skin, feathers, bones, etc.). In some roles, this position may involve supervisory responsibilities including guiding, directing and supporting operators on the line.
- a. **Slaughter processor – general operator**
 - b. Slaughter processor – packing/scales
 - c. Slaughter processor – deboning
 - d. Slaughter processor – trimming/cutting
11. In the process of slaughtering, this person works to process slaughtered beef, sheep, goat, pork and/or poultry by cutting the carcass (the body of a livestock animal ready for butchery) to meet compliance standards and targets.
- a. Slaughter processor – general operator
 - b. Slaughter processor – packing/scales
 - c. Slaughter processor – deboning
 - d. **Slaughter processor – trimming/cutting**
12. A _____ studies and applies growing processes of grape vines to increase the amount and quality of grapes necessary for wine production. This individual must have an understanding of optimum ripeness and proper harvesting of grapes.
- a. **viticulturist**
 - b. horticulturist
 - c. florist
 - d. greenhouse manager
13. _____ combine their knowledge of nutrition, feed ingredient characteristics and feed production technologies to create improved dietary products for animals to ensure that all feeds created are developed within processing and budgetary requirements.
- a. Feed mill managers
 - b. Feed mill operators
 - c. **Formulators**
 - d. Feedlot managers
14. This person is responsible for the daily activity and performance at manufacturing and processing facilities. This individual leads by example, providing support to employees and ensuring that they work efficiently and safely, while looking at operations processes to identify areas that could be improved and lead in their development.
- a. Feed mill operator

Name: _____

- b. Sawmill operator
 - c. **Plant operator**
 - d. Feedlot manager
15. A _____ is responsible for grading, sorting and organizing items, food and other agricultural products by size, weight, color or condition. This person will operate production line equipment and sort items on a conveyor belt, load items onto trollies and ensure the factory is kept organized and clean.
- a. **sorter**
 - b. maintenance/service technician
 - c. plant operator
 - d. carpenter/laborer
16. A _____ is responsible for the loading and unloading of goods at warehouses and other industrial sites. Using a forklift in a safe manner, this individual will prepare orders for shipment by transporting materials from storage to shipping docks and vice versa.
- a. heavy equipment operator
 - b. plant operator
 - c. machine/equipment operator
 - d. **forklift operator**
17. These individuals develop scientific studies and research hypotheses for the investigation of foods and their processing. This research might involve studying the molecular makeup of food, improving food sustainability or enhancing nutritional content.
- a. **Food scientists**
 - b. Food production supervisors
 - c. Food technologists
 - d. Food safety specialists/quality control technicians
18. _____ play an important role in coordinating product shipments and transfers by combining aspects of logistics and customer service. They take calls from staff and customers, assist with communications and transfer to the appropriate department as necessary. Additionally, they will take, process and prepare orders for pickup or delivery.
- a. Administrative assistants
 - b. **Dispatchers**
 - c. Customer service representatives
 - d. Data processors

Natural Resources Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
- a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems
2. Scientists, technicians and engineers in _____ are focused on preventing the harmful effects of human activities.
- a. environmental service systems
 - b. **natural resources systems**
 - c. biotechnology systems
 - d. agricultural education
3. These individuals work with private landowners and federal, state and local governments to manage, improve and protect the planet's natural resources. This career involves advising and consulting with farmers and other stewards of the land about the best practices for improving their land and productivity without damaging the environment.
- a. **Conservationists**
 - b. Conservation officers
 - c. Zoologists
 - d. Falconers
4. _____ are responsible for the sales, programming, operation and maintenance of irrigation systems to help producers create healthier and higher yielding crops. They provide system recommendations to fit the needs of a variety of customers: golf courses, farmers, landscaping companies, etc. Additionally, they troubleshoot any problems that may arise with the system and ensure that they are always functioning properly.

Name: _____

- a. Crop advisors
 - b. **Irrigation specialists**
 - c. Hydrologists
 - d. Athletic turf managers
5. This person serves as a middleman between commodity traders, commodity marketers and company administration. This individual determines the appropriate prices for products and services using market research and knowledge gained from working closely with the marketing and sales teams.
 - a. **Pricing coordinator**
 - b. Accountant
 - c. Accounting manager
 - d. Administrative assistant
6. _____ oversee a corporation's benefits program, which could include retirement plans, health insurance and other benefits. They communicate benefits rules and regulations to employees and manage records for benefits.
 - a. Payroll administrators
 - b. Corporate recruiters
 - c. Human resources generalists
 - d. **Benefits managers**
7. This individual provides a service role by greeting people and attending to inquiries made by customers or company staff. This person may also be required to take charge of outgoing mail, arrange for courier deliveries and assist in simple clerical work, such as copying, typing, receiving payments and ordering office supplies.
 - a. **Receptionist**
 - b. Administrative assistant
 - c. Accounting manager
 - d. Auditor
8. A _____ studies and oversees the protection and management of an assigned population of one or several species of animals and/or plants. Some people in this career can specialize their work on aquatic animals and be a fisheries biologist.
 - a. **wildlife biologist**
 - b. conservationist
 - c. environmental science and protection technician
 - d. game warden
9. A(n) _____ provides expert consulting services for the sale and support of precision agriculture products and services. This individual builds credibility with growers and farmers by having a strong understanding of the company's offerings and helping clients select the best precision agriculture solutions for their operations.
 - a. mechanical engineer
 - b. geospatial analytics scientist
 - c. custom applicator
 - d. **integrated solutions consultant**
10. A _____ is responsible for the entirety of the financial and accounting functions of a business, including managing resources and financial assets of a company and subsidiary companies and providing leadership for the continuous evaluation of short- and long-term strategic financial objectives.
 - a. chief executive officer (CEO)
 - b. chief operating officer (COO)
 - c. **chief financial officer (CFO)**
 - d. risk management specialist
11. _____ are responsible for generating sales of fuel in an assigned territory through target marketing, competitor analysis and building strong client relationships. They use their specialized knowledge of their company's products to answer customers' questions and offer solutions tailored to their needs.
 - a. **Energy sales specialists**
 - b. Agricultural science teachers - secondary
 - c. International business development associates
 - d. Alternative energy specialists
12. This individual is responsible for enforcing and implementing environmental laws regarding water, oil, gas, energy and other environmental sectors. In addition, this person must perform environmental compliance audits and implement follow-up corrective actions to ensure compliance with federal, state and local regulations.
 - a. **Environmental compliance officer**
 - b. Environmental science and protection technician

Name: _____

- c. Conservationist
 - d. Conservation officer
13. _____ work at the state or federal level, enforcing laws related to hunting and fishing. They patrol an assigned region or area for violators of hunting and fishing laws. They may also be tasked with creating wildlife conservation programs and presentations for the public. Additionally, they will conduct investigations, interviews and interrogations on wildlife-related violations
- a. Environmental science and protection technicians
 - b. Conservationists
 - c. **Game wardens**
 - d. Conservation officers
14. A(n) _____ studies the earth's crust, minerals, rocks, precious metals, gems and fossils. This individual uses various equipment such as magnetometers (instrument for measuring the strength and sometimes the direction of magnetic fields), seismographs (an instrument that measures and records details of earthquakes) and gravimeters (instrument that measures Earth's gravitational field) to prepare maps and charts, explore minerals, oils and natural gas and locate underground water resources.
- a. **geologist**
 - b. ecologist
 - c. environmental scientist and specialist
 - d. environmental engineer
15. A _____ assesses, integrates, manipulates and extracts data from Global Positioning Systems (GPS) and other databases to improve software platforms used in precision agriculture.
- a. automation technician/coordinator
 - b. biostatistician
 - c. **geospatial analytics scientist**
 - d. precision agriculture specialist
16. This individual examines the physical characteristics, distribution and movement of water above and below the earth's surface. This person researches and understands the movement and impact of water in the environment. They design dams, ponds, piping and pumping systems and sewage systems for rainfall.
- a. **Hydrologist**
 - b. Water treatment technician
 - c. Nutrient management/waste management specialist
 - d. Aquaculturist
17. _____ support the analytical needs of a business through the analysis of system data and summary reports. Their collections and reports contribute to decision making for improvements for their specialty area.
- a. Information technology (IT) configurators
 - b. Information technology (IT) programmers
 - c. **Information technology (IT) analysts**
 - d. Information technology (IT) software developers
18. A(n) _____ is responsible for ensuring that the products at agricultural facilities are properly accounted for and stored. This individual will work with production teams to monitor inventory levels and ensure agricultural facilities operate at full capacity.
- a. **inventory/stock specialist**
 - b. purchasing analyst
 - c. commodity procurement/merchandiser
 - d. livestock buyer

Plant Systems

1. This is a type of scientist who focuses specifically on the study of insects. This individual examines growth, behavior and nutrition of insects and how they interact with plants.
- a. Plant scientist
 - b. Horticulturist
 - c. **Entomologist**
 - d. Biostatistician
2. _____ support all aspects of a company's compensation programs, processes and initiatives. They assist in the implementation and administration of base pay and incentive programs. They also contribute to the research of market trends and regulatory requirements.
- a. **Compensation specialists**
 - b. Payroll administrators
 - c. Corporate recruiters
 - d. Human resources generalists

Name: _____

3. _____ are responsible for producing and maintaining sporting grounds. They ensure the turf and surrounds are pristine. They plan, oversee and manage major athletic grounds and field renovation projects.
 - a. Crop advisors
 - b. Landscape managers
 - c. **Athletic turf managers**
 - d. Golf course superintendents
4. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems
5. This person performs inspections of farmers' fields and records weeds, insects, diseases and other observations to help farmers make timely, informed and economical field-crop decisions. This individual must walk customer fields often to look for potential pests and situations that impact yields and then make recommendations to the producer based on those findings.
 - a. Crop advisor
 - b. **Crop scout**
 - c. Crop systems specialist
 - d. Crop adjuster
6. These individuals grow crops, typically in greenhouses, using a water solution that is rich in nutrients instead of soil. They must choose cost-effective plants best for this type of system that are each appropriate for the growing season and oversee the maintenance and growing of those crops.
 - a. Crop advisors
 - b. Crop scouts
 - c. Hydrologists
 - d. **Hydroponics producers**
7. _____ manage and direct the maintenance, management and operation of golf courses. They conduct routine inspection of equipment and vehicles to ensure productivity and safety of the facility. Additionally, they oversee the current and future applications to maintain quality turf and adjust as concerns arise.
 - a. **Golf course superintendents**
 - b. Irrigation specialists
 - c. Laboratory technicians
 - d. Landscape designers
8. These individuals prepare blueprints, coordinate contracts with customers, propose plans and oversee the development of landscapes, typically for companies or groups that provide landscaping design and maintenance services for companies or individuals. They create garden design blueprints using perennials, annual color, edibles, containers and outdoor furniture.
 - a. Golf course superintendents
 - b. **Landscape designers**
 - c. Landscape technicians
 - d. Laboratory technicians
9. These individuals conduct research to understand, improve or create new varieties of plants or crops. Looking at a plant's DNA, they can examine ways to improve shape, size, production level, and pesticide and disease tolerance.
 - a. Plant pathologists
 - b. Laboratory technicians
 - c. Plant scientists/field agronomists
 - d. **Plant geneticists**
10. _____ study the health of plants. They work to identify diseases, pests and other health problems a plant may experience.
 - a. **Plant pathologists**
 - b. Laboratory technicians
 - c. Plant scientists/field agronomists
 - d. Plant geneticists

Name: _____

11. A _____ oversees all operations involved in cotton ginning processes and maintains working relationships with the United States Department of Agriculture (USDA) Cotton Classing offices, cotton producers, employees and others.
 - a. warehouse/facility manager
 - b. retail branch manager
 - c. cotton gin and warehouse manager
 - d. production manager
12. A _____ provides a full array of recruiting services to an organization including sourcing, attracting and selecting talent to work for a company. Most individuals work for staffing agencies and work in collaboration with hiring managers at partnering companies. They work to establish recruiting strategies to identify top talent and target both active and passive job seekers.
 - a. college recruiter
 - b. corporate recruiter
 - c. payroll administrator
 - d. human resources generalist
13. These individuals are responsible for the management and execution of all phases of seed production to ensure a high-quality, reliable and timely supply is delivered to the facility.
 - a. Field agronomists
 - b. Seed production technicians
 - c. Geneticists
 - d. Seed production agronomists
14. _____ implement the scheduling, treatment and fumigation of grain and other products. They inspect properties, identify problems, determine treatments and provide estimates of costs for replacement.
 - a. Apiary workers
 - b. Dealer services representatives
 - c. Biological technicians
 - d. Storage and hygiene coordinators
15. These individuals study wild plants growing in competition with cultivated plants. This research might involve investigating the responses of wild plants under certain conditions, learning how to manage vegetation, and studying the use of herbicides and alternative methods to manage propagation of wild plants.
 - a. Weed scientists
 - b. Nematologists
 - c. Environmental scientists and specialists
 - d. Toxicologists
16. A(n) _____ oversees a community garden or farm facility with the focus of bringing people within that community together and connecting them to where their food comes from. Community supported agriculture allows people to explore how traditional farming methods have changed while sharing the risks and rewards across multiple stakeholders.
 - a. extension agent
 - b. agricultural science teacher – secondary
 - c. community/urban farmer
 - d. extension youth program coordinator
17. A(n) _____ takes steps to control pests in fields, landscaping, commercial buildings and personal residences. This individual is ultimately responsible for working with customers to identify the pest causing a problem, create a plan to exterminate the pest and apply the appropriate pesticides (a substance intended for preventing, removing or destroying pests such as insects or rodents).
 - a. pesticide technician
 - b. integrated pest management specialist
 - c. crop scout
 - d. custom applicator

Name: _____

18. These individuals are responsible for buying crops and agricultural products either to process them or resell them to customers. They build relationships with producers and sellers by providing them with tailored services and purchasing products at a fair price. Additionally, they will evaluate suppliers, negotiate purchasing agreements and follow market trends.
- Merchants**
 - Commodity procurement/merchandisers
 - Grain buyers
 - Procurement specialists

Power, Structural and Technical Systems

- Professionals in _____ apply knowledge of engineering, hydraulics, pneumatics, electronics, power, structures and controls to the field of agriculture.
 - plant systems
 - biotechnology systems
 - power, structural and technical systems**
 - natural resources systems
- _____ assemble parts for machines or agricultural equipment while maintaining quality workmanship and require at least a high school diploma or associate degree.
 - Assembly technicians**
 - Automation technicians/coordinators
 - Bioinformatics scientists
 - Carpenters/Laborers
- _____ maintain efficient and proper parts for agricultural equipment and related goods. They will operate the department at maximum production while controlling costs, maintaining inventory records, and providing warranty and service support.
 - Parts managers**
 - Assembly technicians
 - Automation technicians/coordinators
 - Packaging engineers
- _____ are the primary contact between two companies in a business-to-business relationship. These individuals support the dealers and field personnel with resources, answers and information through verbal, written and electronic communication channels. In addition, they will generate a weekly report detailing frequent product issues brought up by dealers.
 - Fleet managers
 - Dealer services representatives**
 - Office managers
 - Customer service representatives
- A(n) _____ is responsible for the design, development, repair and testing of electrical systems, components and devices. This individual works with manufacturing, quality assurance, supply management, sales and marketing teams to ensure that equipment is installed per design and meets specs.
 - electrical engineer**
 - mechanical engineer
 - hydraulic technician
 - maintenance/service technician
- A(n) _____ provides support to the chief executive officer (CEO) or president of the company while also serving as the primary business administrator for the head office. On behalf of the CEO, this person plans, coordinates, schedules and conducts secretarial activities.
 - executive assistant**
 - administrative assistant
 - customer service representative
 - office manager
- A _____ is responsible for the management of goods, materials, services and/or equipment of either a division of a company or an entire company. This individual is responsible for ensuring that companies have enough materials for production and coordinate finished products leaving the facility through contract negotiations and service programs.
 - parts manager
 - pricing coordinator
 - supply chain manager**
 - storage and hygiene coordinator

Name: _____

8. _____ efficiently and safely pick up, transport and deliver feed, ingredients, equipment or livestock to processing facilities. They operate and drive primarily tractor-trailer, long-combination vehicles and straight-body trucks over long distances. During their deliveries, they complete pre-trip inspections, monitor all goods during the trip and document all activities.
 - a. **Truck drivers**
 - b. Heavy equipment operators
 - c. Forklift operators
 - d. Livestock haulers
9. A(n) _____, or bulk handler, is responsible for operating equipment used to load, unload, move, store and stack bulk, dry materials such as grain, sugar and flour. This person controls material loading by using electronic data capture systems that weigh and handle products.
 - a. **Weighbridge/receivable associate**
 - b. Export sales manager
 - c. Warehouse/facility manager
 - d. Supply chain manager
10. These individuals study and apply engineering science and design principles for the use and development of agricultural land, buildings, machines and equipment across a diverse set of agricultural projects. They design, build and test equipment and processes that reduce operation costs, eliminate emissions, improve operator safety and improve sustainable agriculture practices.
 - a. Process engineers
 - b. Design engineers
 - c. **Agricultural engineers**
 - d. Ethanol engineers
11. This person is responsible for directing and managing the operation of a business during a specific time such as a day or night. This individual will delegate tasks to employees and ensure that workers are completing their job duties while adhering to shift goals.
 - a. **Shift manager**
 - b. Office manager
 - c. Customer service representative
 - d. Data processor
12. A(n) _____ inspects, diagnoses, troubleshoots, repairs and verifies the repair of large equipment such as front-end loaders, dozers, dump trucks and compactors. During repairs, this person will work on multiple systems such as electrical, hydraulics and diesel and use a range of tools.
 - a. mechanical electrician/electronics technician
 - b. assembly technician
 - c. **heavy duty equipment technician**
 - d. service manager
13. _____ study and analyze genetic systems using technology and mathematical modeling techniques. In agriculture, this research might include genotyping animals to better understand genetic variations, predicting the best type of crops to plant or finding ways to protect pollinator species like bees. They perform scientific experiments, analyze the data collected and develop solutions to problems using quantitative results.
 - a. **Genomics scientists**
 - b. Geospatial analytics scientists
 - c. Patent scientists/patent attorneys
 - d. Bioinformatics scientists
14. A(n) _____ oversees the coordinating, managing and reporting of all domestic shipments (within the same country) and international inbound/outbound shipments of products. This individual understands the ins and outs of creating shipments, packing and fulfilling orders and coordinating various moving parts to ensure orders are shipped out timely and accurately.
 - a. **logistics specialist**
 - b. export sales manager
 - c. supply chain manager
 - d. port terminal manager
15. A _____ is responsible for managing the movement, storage and distribution of finished goods after they have left the manufacturing line. With the help of warehouse staff, this person ensures trucks are loaded and unloaded properly and all scheduled outbound shipments are delivered on time.
 - a. cotton gin and warehouse manager
 - b. **finished goods supervisor**
 - c. production manager

Name: _____

- d. fleet manager
- 16. These individuals support daily operations of production and manufacturing facilities for a given department. Working closely with production supervisors, they provide leadership and manage work teams while monitoring manufacturing and packaging procedures.
 - a. **Production leads**
 - b. Cotton gin and warehouse managers
 - c. Production managers
 - d. Fleet managers
- 17. A _____ is responsible for coordinating and regulating an organization's transportation-related operational activities. This person will schedule the movement of transportation vehicles, aircraft and railroad cars and ensure that deliveries and orders arrive on time.
 - a. supply chain manager
 - b. **transportation manager**
 - c. port terminal manager
 - d. fleet manager
- 18. An _____ ensures that writing, testing and maintenance of computer programs and applications are analyzed to meet user and process needs. This individual designs all or part of an information system and oversees program design activities to ensure they meet business process objectives.
 - a. **information technology (IT) programmer**
 - b. information technology (IT) configurator
 - c. information technology (IT) software developer
 - d. information technology (IT) specialist

Skilled Trades Systems

- 1. Which career would be a great option for someone who loves animals but does not want to attend college after high school?
 - a. Veterinarian
 - b. Veterinary technician
 - c. **Pet groomer**
 - d. Animal geneticist
- 2. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems
- 3. This career is responsible for applying essential pesticides, fertilizer or fungicides to crops while operating planes safely and responsibly. This person will work to keep the airplane and equipment properly maintained while documenting chemical applications that are then reported to the grower.
 - a. **Aerial applicator/agriculture pilot**
 - b. Automation technician/coordinator
 - c. Precision agriculture specialist
 - d. Crop scout
- 4. This career is responsible for constructing agricultural buildings and structures, such as barns, sheds, grain bins, mills, plants, elevators and more.
 - a. **Construction foreman**
 - b. Mechanical engineer
 - c. Logger
 - d. Carpenter/Laborer
- 5. This person performs general maintenance duties and assists others in mechanical and carpentry-related duties. This individual can construct, install and repair structures of wood, plywood, wallboard and other wood-based materials used in buildings.
 - a. Construction foreman
 - b. Mechanical engineer
 - c. **Carpenter/Laborer**
 - d. Construction foreman
- 6. A(n) _____ specializes in the hoof care of equine, such as horses, ponies, mules and donkeys. Typically, these individuals clean, trim and shoe horses' hooves to maintain the animal's well-being and mobility.
 - a. **farrier**
 - b. falconer

Name: _____

- c. zoologist
 - d. apiary worker
7. Who oversees and assists in the daily work completed at a fishery while ensuring fish are healthy, properly housed and fed and is responsible for general maintenance around the facility? Additionally, this person assists biologists and technicians in various natural resource management practices or research activities.
- a. Fisheries technician
 - b. Fleet manager
 - c. Hydrologist
 - d. Marine biologist
8. These individuals, also known as lumberjacks or timber fallers, work in the wood/timber industry cutting down trees and processing them into logs. They use chain saws and other specialty logging equipment to remove excess limbs and branches and trim logs into specific lengths at the cutting site.
- a. Carpenters/Laborers
 - b. Loggers
 - c. Hydrologists
 - d. Construction foremans
9. _____ manage, design and maintain landscaped properties. This includes growing and transplanting a variety of trees, shrubs, annuals, perennials and construction of hardscapes. They follow plans and specifications, inspecting and directing the planting of landscape materials associated with improvement, beautification and erosion control.
- a. Landscape technicians
 - b. Custom applicators
 - c. Crop scouts
 - d. Crop advisors
10. A _____ assists in the sale of animals at public auctions by helping farmers in selecting and organizing bringing their livestock to the sale and signaling bids from audience members while maintaining crowd control. These individuals also use their knowledge to track desirable qualities of livestock, average prices and market trends across the industry.
- a. livestock auctioneer
 - b. livestock/meat grader
 - c. livestock buyer
 - d. commodity procurement/merchandise
11. These individuals work alongside a veterinarian to assist in the care and medical treatment of sick or injured animals. They administer medications and collect samples such as blood and urine for testing. Furthermore, they maintain medical records of animals and keep a sanitary and sterile environment in the veterinary office.
- a. Veterinary assistants
 - b. Food animal veterinarians
 - c. Small animal veterinarians
 - d. Veterinary technicians
12. A _____ performs installation, maintenance and testing of wind energy collection sites where the power from wind turbines is gathered. These individuals perform inspections of wind turbines and equipment associated with wind energy and document work performed. Additionally, they act promptly in reporting to the site manager any facility or equipment deficiencies in case of damage or emergency situations.
- a. maintenance/service technician
 - b. mechanical engineer
 - c. carpenter/laborer
 - d. wind substation technician
13. This individual is responsible for maintaining and repairing different kinds of farm equipment such as combines and tractors. This person troubleshoots issues and fixes them by inspecting engines, mechanical/electrical components and hydraulic systems.
- a. Mechanic
 - b. Mechanical electrician/electronics technician
 - c. Automation technician/coordinator
 - d. Wind turbine technician
14. _____ are responsible for installing, repairing and troubleshooting mechanical equipment at sites such as production plants, farms and construction sites. They will use a variety of hand tools and equipment for cutting. Plus, they weld, interpret diagrams and create schematic drawings to complete a project.
- a. Maintenance/Service technicians
 - b. Millwrights
 - c. Mechanical engineers
 - d. Mechanics

Name: _____

15. _____ fabricate (construct or manufacture) and install metal sheets for various applications including agricultural and farm equipment. These individuals maneuver and anchor large pieces of metal and will fasten seams or joints by welding, bolting, riveting or soldering based on the application, blueprints and sketches.
 - a. **Sheet metal workers**
 - b. Heavy equipment operators
 - c. Plant operators
 - d. Welders
16. A _____ is responsible for maintaining and repairing equipment and machines that use pressurized fluids to carry power from one place to another. This person is responsible for fabricating, repairing, installing and commissioning hydraulic and mechanical systems.
 - a. maintenance/service technician
 - b. mechanical engineer
 - c. carpenter/laborer
 - d. **hydraulic technician**
17. These individual use birds of prey such as eagles, hawks, falcons or owls to analyze and control behavioral patterns in pest bird species such as pigeons, gulls, starlings and sparrows. They also trap, euthanize, exterminate or relocate pest animals and wildlife affecting agricultural production.
 - a. **Falconers**
 - b. Conservationists
 - c. Animal physical therapists
 - d. Animal/Horse trainers
18. _____ direct, implement, audit and evaluate the maintenance, installation, and repair of cooling and refrigeration systems in the manufacturing and processing sectors. They play an important role in food safety. Additionally, they supervise the removal and placement of carcasses in cold storage rooms and supervise the packing of meat and count packs before freezing.
 - a. Storage and hygiene coordinators
 - b. Food safety specialists
 - c. **Freezer/Refrigeration specialists**
 - d. Food safety/quality assurance managers

Sustainability Systems

1. _____ assist conservation and environmental scientists in studying living organisms and their life cycles, mostly within a laboratory setting.
 - a. Environmental engineers
 - b. **Biological technicians**
 - c. Ecologists
 - d. Climate change analysts
2. _____ are responsible for general farm operations including feeding and care of fish grown in a saltwater habitat. Their duties require them to test and maintain saltwater levels to promote optimal growth of fish produced in a saltwater environment.
 - a. Ecologists
 - b. **Saltwater husbandry technicians**
 - c. Aquaculture hatchery managers
 - d. Apiary workers
3. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. **agricultural education**
 - c. agribusiness systems
 - d. natural resources systems
4. This career works to convert biomass (plant-based materials used as fuel) into fuels such as ethanol and biodiesel and chemicals to create more sustainable solutions to fuel our planet. Individuals in this career are responsible for the operation of all plant processing equipment in a highly automated chemical facility.
 - a. Energy sales specialist
 - b. Dealer services representative
 - c. **Biorefining manager**
 - d. Ethanol engineer

Name: _____

5. Individuals in this career study the relationships of organisms and their environment. In addition to their research, they gather and analyze data and study environmental problems to determine what caused the problem and how to improve the situation. Additionally, they provide the public with educational programs on how to protect species of plants and animals in their area.
 - a. **Ecologist**
 - b. Conservationist
 - c. Energy sales specialist
 - d. Apiary worker
6. These individuals study and complete research on aquatic organisms and their habitats. They design controlled laboratory and natural field experiments to meet their objectives. Additionally, they complete various tests including habitat assessments, fish salvage, water quality, sediment, vegetation and wildlife surveys.
 - a. Molecular biologists
 - b. Laboratory technicians
 - c. **Marine biologists**
 - d. Microbiologists
7. This person ensures that the appropriate communication messages and mediums are used to meet sales targets. Their work uses research to find the best means for their company to reach the target demographic for a particular product or service.
 - a. **Marketing specialist**
 - b. Social media strategist
 - c. Public relations specialist
 - d. Communications specialist
8. A _____ is responsible for overseeing process improvement plans within companies. In agriculture, this might include helping to find ways to reduce waste, improve the efficiency of equipment or create better working conditions for employees. This individual is responsible for tracking the progress of projects and updating all necessary documentation for projects.
 - a. feed mill operator
 - b. **process/continuous improvement manager**
 - c. storage and hygiene coordinator
 - d. freezer/refrigeration specialist
9. A _____ investigates the connections between organisms and the environment in a variety of settings and makes recommendations for improvements to reestablish natural ecosystems. Much of this work will typically include assisting in the implementation of those recommendations.
 - a. **restoration specialist**
 - b. research technician
 - c. molecular biologist
 - d. conservationist
10. These individuals combat and prevent forest or prairie fires. They reside in fire towers to observe a particular area for fires and then notify the proper authorities. They also monitor for signs of fires, dispatch and relay information to emergency personnel and serve as a firefighter and/or engine operator during wildfire suppression.
 - a. Conservationist
 - b. Conservation officer
 - c. Restoration specialist
 - d. **Wildland firefighter/fire tower watchman**
11. A(n) _____ studies and oversees the protection and management of an assigned population of one or several species of animals and/or plants. Some people in this career can specialize their work on aquatic animals and be a fisheries biologist.
 - a. **wildlife biologist**
 - b. conservationist
 - c. environmental science and protection technician
 - d. game warden
12. _____ are responsible for the installation, maintenance and repair of wind turbines. They conduct basic cleaning and maintenance of wind turbines and are always focused on safety.
 - a. Maintenance/Service technicians
 - b. Mechanical engineers
 - c. **Wind turbine technicians**
 - d. Wind substation technicians
13. This individual studies the behavior of animals and wildlife and studies the diseases and genetics of animals across the globe or in specific areas. After conducting research activities and experiments around animal health

Name: _____

and behavior, this person creates plans and strategies to help animals recover from illness, injury or habitat change.

- a. **Zoologist**
- b. Animal biotechnologist: reproductive or nutritional specialist
- c. Herdsperson
- d. Animal caretaker

14. A(n) _____ is responsible for helping companies and organizations on the execution of sustainability strategies. In agriculture, this might include making recommendations on waste management, soil health, green building practices or improving the efficiency of production practices. This individual is responsible for planning, tracking and implementing sustainability programs.

- a. sustainability manager
- b. restoration specialist
- c. environmental compliance officer
- d. **sustainability specialist**

15. A _____ develops and hypothesizes scientific experiments that help solve problems across agricultural fields. Either in a laboratory setting or out in the field, these professionals will carry out experiments, analyze data and develop reports based on the conclusions they have discovered.

- a. **research scientist**
- b. research station manager
- c. plant biologist
- d. plant pathologist

16. This individual is responsible for enforcing and implementing environmental laws regarding water, oil, gas, energy and other environmental sectors. In addition, this person must perform environmental compliance audits and implement follow-up corrective actions to ensure compliance with federal, state and local regulations.

- a. **Environmental compliance officer**
- b. Environmental science and protection technician
- c. Conservationist
- d. Conservation officer

17. _____ investigate issues within the environment and design solutions in areas such as water, air pollution and waste management. Additionally, they use scientific data to analyze naturally occurring environmental weather patterns and make recommendations for preserving habitats. They also provide training to fellow employees on environmental compliance practices.

- a. Environmental science and protection technicians
- b. **Environmental engineers**
- c. Environmental scientists and specialists
- d. Conservationists

18. _____ will typically work under the direction of a lead environmental scientist, biologist or ecologist to conduct environmental monitoring through lab and field testing. Additionally, they will make recommendations to control or eliminate unsafe conditions at workplaces or public facilities.

- a. Environmental engineers
- b. Environmental scientists and specialists
- c. **Environmental science and protection technicians**
- d. Conservationists

Name: _____

Agriculture Career Questions

Agribusiness Systems

1. _____ work to achieve corporate objectives and effectively manage a company or group of companies. The key responsibility is to provide direction for the company while attaining overall profitability and growth.
 - a. Chief financial officers (CFOs)
 - b. Chief executive officers (CEOs)
 - c. Chief operating officers (COOs)
 - d. Agriculture lawyers
2. _____ use radio or television to report on stories that are relevant to viewers interested in agriculture but may also be used by regional and national outlets reaching viewers with no direct connection to agriculture.
 - a. Agriculture journalists
 - b. Social media strategists
 - c. Agriculture broadcasters
 - d. Public relations specialists
3. _____ work to hire top talent into their respective companies from targeted agricultural colleges and universities. They target undergraduate and graduate students directly and are involved in planning summer internships.
 - a. Recruiters
 - b. College recruiters
 - c. Extension agents
 - d. Agriculture educators
4. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
5. The _____ field encompasses activities that contribute to successful agricultural production. This can include crop production, farm equipment, seed supply marketing, natural resources and animal services.
 - a. plant systems
 - b. animal systems
 - c. biotechnology systems
 - d. agribusiness systems
6. The career of _____ examines financial records and statements to ensure accounts are correct and in balance while ensuring laws and regulations are met. Further, this person would prepare tax returns and recompense taxes for clients while looking for ways to improve efficiency in spending and present a summary of recommendations to clients.
 - a. accounting manager
 - b. accountant
 - c. administrative assistant
 - d. agricultural financial service representative
7. _____ serve as middlemen between commodity traders, commodity marketers and company administration. They determine the appropriate prices for products and services using market research and knowledge gained from working closely with the marketing and sales teams.
 - a. Pricing coordinators
 - b. Accountants
 - c. Accounting managers
 - d. Administrative assistants
8. _____ are responsible for creating and maintaining a positive company brand for both employees and clientele. They work closely with managers in the process of company actions to ensure maximum exposure and positive relations with the public.
 - a. Chief financial officers (CFOs)
 - b. Chief operating officers (COOs)
 - c. Public relations specialists
 - d. Production managers

Name: _____

9. A _____ is responsible for analyzing markets and helping companies strategize ways for them to be more competitive. Using research marketing tools, this person conducts market research, tracks different kinds of data and identifies patterns.
 - a. market analyst
 - b. marketing manager
 - c. digital marketing specialist
 - d. product development manager/demand planner
10. This individual provides a service role by greeting people and attending to inquiries made by customers or company staff. This person may also be required to take charge of outgoing mail, arrange for courier deliveries and assist in simple clerical work, such as copying, typing, receiving payments and ordering office supplies.
 - a. Receptionist
 - b. Administrative assistant
 - c. Accounting manager
 - d. Auditor
11. A _____ is responsible for the management of goods, materials, services and/or equipment of either a division of a company or an entire company. This person is responsible for ensuring that companies have enough materials for production and coordinates finished products leaving the facility through contract negotiations and service programs.
 - a. parts manager
 - b. pricing coordinator
 - c. supply chain manager
 - d. storage and hygiene coordinator
12. This individual is responsible for leading the health, safety and environmental programs at organizations to reduce accidents and other injuries that are related to work. This person designs and monitors safety programs using data trends and makes necessary changes to the program such as increasing safety measures when needed.
 - a. Safety director
 - b. Food safety specialist
 - c. Regulatory scientist
 - d. Sanitation coordinator
13. _____ are responsible for planning, coordinating and organizing the production schedules for manufacturing and processing facilities. They make their production schedules based on forecasted product demands, available supplies, labor availability and machine capacities.
 - a. Office managers
 - b. Schedulers
 - c. Data processors
 - d. Customer service representatives
14. _____ are responsible for selling an agricultural product or service for their companies over the phone or via email. They manage the accounts within their territories, maintain positive relationships with existing customers — providing customer service and addressing issues when they arise — and form relationships with new and potential customers.
 - a. Inside sales representatives
 - b. Sales representatives: food, seed, feed, fuel
 - c. Sales representatives: equipment and ag systems
 - d. Export sales managers
15. A _____ oversees the coordinating, managing and reporting of all domestic shipments (within the same country) and international inbound/outbound shipments of products. This person understands the ins and outs of creating shipments, packing and fulfilling orders and coordinating various moving parts to ensure orders are shipped out on time and accurately.
 - a. logistics specialist
 - b. export sales manager
 - c. supply chain manager
 - d. port terminal manager
16. This individual is responsible for creating and implementing plans that promote and support diversity and inclusion for an organization. Further, these individuals tailor diversity communications and messaging to diverse audiences and actively communicate with all staff members for their input on the development of policies and strategies.
 - a. Human resources generalist
 - b. Diversity and inclusion lead
 - c. Human resources manager
 - d. Corporate recruiter

Name: _____

17. _____ are responsible for helping companies strengthen sales, boost brand awareness and accomplish other goals in international markets. They will perform market research to determine which markets are profitable and identify potential clients. Additionally, they will cultivate strong relationships with clients by delivering tailored solutions.
 - a. International business development associates
 - b. Process/Continuous improvement managers
 - c. Marketing specialists
 - d. Social media strategists
18. A _____ is responsible for managing the daily operations and production on poultry farms and hatcheries. This person ensures the safety and welfare of both staff and animals while planning, organizing, directing and controlling functions of the farm. Managing chick care and maintenance and coordinating the outside work with service technicians is also an important piece to this career.
 - a. supply chain manager
 - b. live operations manager
 - c. farm operations/production manager
 - d. operations manager

Agricultural Technology Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
2. This type of engineer works closely with the management team to maximize efficiencies of plant operations and implement process improvement projects. This engineer can help an ethanol plant with cost-saving projects, such as energy reclaim, reduction, yield optimization and chemical usage reduction.
 - a. Mechanical engineer
 - b. Electrical engineer
 - c. Ethanol engineer
 - d. Mine engineer
3. This person uses programs and equipment to design, build, test, produce and improve mobile apps. This individual also provides businesses with apps for consumers or for staff use to increase productivity or provide staff resources.
 - a. Information technology (IT) app developer
 - b. Information technology (IT) configurator
 - c. Information technology (IT) programmer
 - d. Information technology (IT) software developer
4. These individuals provide support and technical assistance to growers who are using precision technologies on their farms. Using these technologies, they create and implement plans for farmers to enhance the health of their fields.
 - a. Automation technicians/coordinators
 - b. Bioinformatics scientists
 - c. Mine engineers
 - d. Precision agriculture specialists
5. _____ use engineering principles to design procedures, products and machinery to make them more efficient and functional. They work throughout a machinery's life cycle including its design, development, installation, testing and maintenance. These engineers focus on agricultural systems such as farming systems.
 - a. Mechanical engineers
 - b. Electrical engineers
 - c. Agricultural engineers
 - d. Software engineers
6. _____ work in a support role for the payment of wages to employees. They ensure that employees' salaries get paid correctly and on time and that the employer complies with relevant tax laws and other rules.
 - a. Accountants
 - b. Accounting managers
 - c. Administrative assistants
 - d. Payroll administrators

Name: _____

7. These individuals develop, manage and track multimedia content on their employer's social media pages. They manage a day-to-day social content calendar for social media channels, drive engagement and research social media platforms to create reports.
 - a. Precision agriculture specialists
 - b. Social media strategists
 - c. Agriculture broadcasters
 - d. Information technology (IT) app developers
8. A _____ is responsible for helping organizations use their computer systems in a way that supports organizational goals. This person creates improved systems by collaborating with colleagues to determine where computer software and technologies can help employees in their roles.
 - a. computer system analyst
 - b. information technology (IT) software developer
 - c. information technology (IT) configurator
 - d. information technology (IT) programmer
9. This individual is responsible for providing support and technical assistance to growers for the implementation of digital products and tools on their farms. This person provides knowledge and advice for specific technological products such as precision machinery and soil sampling.
 - a. Digital farming lead
 - b. Data analyst
 - c. Geospatial analytics scientist
 - d. Precision agriculture specialist
10. A _____ is responsible for supporting agricultural operations by developing and maintaining software. This individual will research, design, evaluate, integrate and maintain software applications that solve agricultural problems such as how to sort fruit using computerized software.
 - a. information technology (IT) configurator
 - b. information technology (IT) programmer
 - c. software engineer
 - d. information technology (it) specialist
11. Also known as an unmanned aerial vehicle technicians, these individuals are responsible for the repair and maintenance of unmanned aerial vehicles (UAVs). They perform hands-on work using hand tools, including metallic, structural and electronic component fabrication. Additionally, these individuals will work on the UAV's internal software by installing and updating firmware and software packages, ensuring the aircraft conforms to design and that vehicles are in safe operating condition.
 - a. Drone technicians
 - b. Automation technicians/coordinators
 - c. Biostatisticians
 - d. Mechanical engineers
12. A _____ studies how current and proposed laws, government policies and regulations affect individuals, organizations and the community. This person performs detailed research to determine the effectiveness of policy and suggest improvements to provide direction for organizations.
 - a. policy analyst
 - b. agricultural literacy and advocacy specialist
 - c. agriculture lobbyist
 - d. agricultural science teacher - secondary
13. _____ are responsible for managing and maximizing the value from technology within an organization or company. They have a strong understanding of their organization's operations and will lead the adoption and implementation of technologies that would help their operations.
 - a. Technology strategists
 - b. Information technology (IT) analysts
 - c. Information technology (IT) configurators
 - d. Information technology (IT) programmers
14. These individuals are responsible for ensuring that computer software, operating systems, security tools and business applications are functioning correctly. They perform day-to-day maintenance and repairs including software and computer installations and upgrades. Additionally, they support the organization by providing technical support, automation, security maintenance and troubleshooting on computer systems.
 - a. Information technology (IT) analysts
 - b. Systems administrators
 - c. Information technology (IT) configurators
 - d. Information technology (IT) programmers

Name: _____

15. A _____ provides administrative support for the capture and transfer of information for storage, processing or transmitting. This person inputs agricultural data into computers including reports, mailing lists, payroll, staff records and scientific information.
 - a. data processor
 - b. administrative assistant
 - c. customer service representative
 - d. dispatcher
16. A _____ designs and develops agricultural equipment and system products that allow farmers to improve the yield of their land. This individual also serves as a technical resource by participating in design reviews and providing input on new projects.
 - a. brand manager
 - b. environmental engineer
 - c. graphic designer
 - d. design engineer
17. _____ investigate issues within the environment and design solutions in areas such as water, air pollution and waste management. Additionally, they use scientific data to analyze naturally occurring environmental weather patterns and make recommendations for preserving habitats. They also provide training to fellow employees on environmental compliance practices.
 - a. Environmental science and protection technicians
 - b. Environmental engineers
 - c. Environmental scientists and specialists
 - d. Conservationists
18. These individuals are responsible for wiring, troubleshooting, repairing and maintaining the electrical systems that are part of mechanical equipment. Additionally, they perform installation, maintenance and repair of electrical systems. They also assist in developing trainings and reviewing electrical programs and procedures for companies.
 - a. Mechanical electricians/electronics technicians
 - b. Electrical engineers
 - c. Mechanical engineers
 - d. Hydraulic technicians

Animal Systems

1. This individual teaches horseback riding lessons to adults and children with emotional, physical or cognitive (the ability to think, learn or remember) disabilities. The goal is to increase independence, mobility (movement) and balance and improve the mental and emotional health of those with special needs.
 - a. Therapeutic riding instructor
 - b. Animal/horse trainer
 - c. Bloodstock agent
 - d. Animal caretaker
2. _____ study microorganisms that are found in various environments. They examine bacteria, fungi, viruses and other parasites to see how they grow and interact with the environment in which they are located. Their duties require them to isolate and make cultures of bacteria and other microorganisms to look at their growth.
 - a. Microbiologists
 - b. Nematologists
 - c. Environmental scientists and specialists
 - d. Toxicologists
3. _____ remove the internal organs from carcasses during meat processing. This process can include washing out carcasses, cutting and salvaging components of the animal as assigned and inspecting carcasses for quality.
 - a. Evisceration processors
 - b. Fermentation scientists
 - c. Food technologists
 - d. Meat inspectors
4. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems

Name: _____

5. Scientists and technicians in _____ careers treat diseased or injured livestock, companion and exotic animals and work to keep them healthy.
 - a. animal systems
 - b. agricultural education
 - c. environmental service systems
 - d. natural resources systems
6. _____ oversee and participate in the buying, selling and selection of livestock for companies and individuals. They use their knowledge to track desirable qualities of livestock, average prices and market trends across the industry to make the best purchases for their clients.
 - a. Livestock auctioneers
 - b. Livestock loaders
 - c. Livestock/Meat graders
 - d. Livestock buyers
7. This person monitors and moves cattle around a feeding operation. On horses, this individual rides through assigned pens daily and identifies sick animals by observing outward signs of distress. This person segregates sick cattle for treatment by driving them to the nearest hospital pen.
 - a. Livestock auctioneer
 - b. Livestock loader
 - c. Pen rider
 - d. Livestock buyer
8. Also known as a pet stylist, this person professionally grooms dogs, cats and other pets. Additionally, this person is responsible for the maintenance of an animal's coat to avoid injury or matting as well as provides customers with specific procedures for their pets to achieve a level of visual appeal.
 - a. Farrier
 - b. Pet groomer
 - c. Falconer
 - d. Zoologist
9. Employees in this career assist in daily operations and duties on the farm. This can include checking birds, collecting eggs and feeding. They also assist in breeding programs and maintaining the house and watering/heating system as needed.
 - a. Poultry farm worker
 - b. Poultry hatchery manager
 - c. Zoologist
 - d. Port terminal manager
10. The main priority of this professional is to oversee the operational responsibility of the hatchery to ensure performance is at the highest possible level. This includes the management of personnel, eggs and equipment. This person manages and coordinates hatchery activities such as egg pickup, delivery, care, incubation, hatching, grading, vaccination, preparation and shipping of chicks.
 - a. Poultry farm worker
 - b. Poultry hatchery manager
 - c. Zoologist
 - d. Port terminal manager
11. People in this career oversee and maintain cattle, equine or sheep on a large land area. They monitor grazing land to ensure livestock are properly fed and assure that their environment is well kept and safe. During droughts, they may need to set up and monitor irrigation systems. Additionally, they identify sick animals, monitor nutrition and determine proper treatment or contact a veterinarian.
 - a. Ranch manager
 - b. Herdsperson
 - c. Small animal veterinarian
 - d. Zoologist
12. The goal of a person in this career is to research and provide advice on feed product selection, maintenance feeding programs and modification of diets to meet certain desired outcomes in hooved animals that chew their cud and usually have stomachs with four chambers. These nutritionists assist in the care of animals including cattle, sheep, llamas and goats.
 - a. Poultry farm worker
 - b. Ruminant nutritionist
 - c. Sanitation coordinator
 - d. Nutritionist/Dietitian

Name: _____

13. A _____ is responsible for maintaining the health of animals as well as the diagnosis and treatment of sickness, disease and injury in companion animals. This individual primarily works with dogs and cats with the option of specializing in exotic animals such as rabbits, caged birds and other small pets.
 - a. Zoologist
 - b. Small animal veterinarian
 - c. Ruminant nutritionist
 - d. Small ruminant farm worker
14. This individual is responsible for the daily care and maintenance of sheep that are used for meat or wool production or goats that are used for meat or dairy production. Additionally, this person assists in breeding programs, shears sheep yearly, assists in milking operations for dairy goats, cleans the milking parlor after each milking and ensures milk quality by following standards.
 - a. Small ruminant farm worker
 - b. Herdsperson
 - c. Ranch manager
 - d. Poultry farm worker
15. _____ manage the daily operations on a farm during the last phase of the grow-out stage (the stage of a market pig's life where pigs are fed and cared for until they are at a market weight of 280 lbs.) of the pig. They are responsible for overseeing all aspects of the health and growth of the animal in an effective and safe manner. They manage and coordinate farm activities such as animal transportation, care, breeding, vaccination and general care of animals.
 - a. Sow farm managers
 - b. Swine finishing farm managers
 - c. Swine nursery farm workers
 - d. Toxicologists
16. _____ are doctors of veterinary medicine who diagnose diseases by examining animal tissue and body fluids. They diagnose disease based on examination of organs, tissues and bodies.
 - a. Food animal veterinarians
 - b. Small animal veterinarians
 - c. Veterinary technicians
 - d. Veterinary pathologists
17. A _____ works alongside a veterinarian to care for animals and assist in procedures such as physical exams, dental procedures, spaying and neutering, immunizations, diagnosis, treatments and euthanasia. This individual communicates with the veterinarian about the progress of animal treatments and recovery and documents each specific animal treated.
 - a. veterinary assistant
 - b. food animal veterinarian
 - c. small animal veterinarian
 - d. veterinary technician
18. This career is responsible for breeding animals based on desirable traits and characteristics. Employees in this career ensure the well-being, health and comfort of the animals and record details of their diet, physical conditions and behavior. They have a strong understanding of animal genetics and are involved across all stages of animals' lives.
 - a. Animal breeders
 - b. Breeding managers/multiplication managers
 - c. Animal caretakers
 - d. Animal geneticists

Biotechnology Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
2. Careers in _____ help make plants more nutritious to eat and enable fish to grow twice as fast along with solving global issues.
 - a. natural resources systems
 - b. environmental service systems
 - c. plant systems
 - d. biotechnology systems

Name: _____

3. Who provides reproductive services and research in the areas of embryo creation, IVF (in vitro fertilization), cloning and transgenic (deliberate gene modification) animal production?
 - a. Zoologist
 - b. Embryologist
 - c. Apiary worker
 - d. Farrier
4. _____ design and perform experiments to better understand the molecular processes in cells essential to life. They examine plant, animal or human cells at the molecular level and use that information to understand diseases, create new medical treatments and engineer new plant varieties.
 - a. Zoologists
 - b. Molecular biologists
 - c. Geneticists
 - d. Microbiologists
5. _____ plan, develop, deliver and report on new products that help to drive growth for businesses. They assess the profitability of potential new products by performing market research and determining where their company's products could fit in the market compared to the competition. They are involved in every aspect of product development from ideation to launch.
 - a. Product development managers/demand planners
 - b. Food safety specialists
 - c. Food production supervisors
 - d. Food safety/quality assurance managers
6. A _____ monitors a company's production process to ensure the company follows governmental and third-party food safety regulations. This person conducts audits by performing inspections of buildings, paperwork, employees and equipment, looking for anything that could compromise the quality or safety of a product.
 - a. quality assurance manager
 - b. quality assurance auditor
 - c. food safety specialist
 - d. food safety/quality assurance manager
7. A _____ performs and documents research trials and projects under the supervision of a principal investigator (PI). The type of research that is performed depends on the PI that this individual works for. These tasks typically involve using cutting-edge research techniques and equipment.
 - a. research associate
 - b. research and development technician
 - c. research and development manager
 - d. regulatory scientist
8. These individuals are responsible for the management and execution of all phases of seed production to ensure a high quality, reliable and timely supply is delivered to the facility.
 - a. Field agronomists
 - b. Seed production technicians
 - c. Geneticists
 - d. Seed production agronomists
9. _____ are responsible for managing an organization's trading operations and performing market research. They support the growth of their company by building a strong understanding of market issues and opportunities relevant to their industry.
 - a. Trade managers
 - b. Export documentation specialists
 - c. Export sales managers
 - d. Directors of supply chain
10. _____ are responsible for leading the processes that improve an organization's capability through the alignment of strategy, people, rewards, metrics and management processes. They assess company culture and use that information to design and implement developmental initiatives.
 - a. Organizational development managers
 - b. Human resources generalists
 - c. Human resources managers
 - d. College recruiters
11. A _____ is responsible for managing the movement, storage and distribution of finished goods after they have left the manufacturing line. With the help of warehouse staff, this person ensures trucks are loaded and unloaded properly and all scheduled outbound shipments are delivered on time.
 - a. cotton gin and warehouse manager

Name: _____

- b. finished goods supervisor
 - c. production manager
 - d. fleet manager
12. These individuals are responsible for ensuring that computer software, operating systems, security tools and business applications are functioning correctly. They perform day-to-day maintenance and repairs including software and computer installations and upgrades. Additionally, they support the organization by providing technical support, automation, security maintenance and troubleshooting on computer systems.
- a. Information technology (IT) analysts
 - b. Systems administrators
 - c. Information technology (IT) configurators
 - d. Information technology (IT) programmers
13. A(n) _____ is responsible for organizational and clerical tasks, often for multiple people. These tasks could include answering telephones, taking messages, welcoming visitors, organizing travel schedules and compiling and updating records through data entry.
- a. administrative assistant
 - b. customer service representative
 - c. data processor
 - d. dispatcher
14. _____ study chemical compounds to determine what they are composed of and how they interact with other substances. Their research has an important role in understanding the relationship between chemistry and the environment, food, fuel, and human and animal medicines.
- a. Flavor technologists
 - b. Fermentation scientists
 - c. Analytical chemists
 - d. Formulation chemists
15. This individual studies the impact of nutrients in feed on animal reproductive processes to develop methods for improved animal health and more efficient production. This person can be responsible for the daily insemination, heat detection and reproductive maintenance of a herd while also monitoring animal nutritional plans and feed combinations.
- a. Ruminant nutritionist
 - b. Animal biotechnologist: reproductive or nutritional specialist
 - c. Herd nutritionist
 - d. Herdsperson
16. _____ analyze the genetic makeup of animals to discover which genes cause them to behave certain ways. They may also study animal health to determine what causes animals to be immune to specific diseases or fail to thrive in certain environments.
- a. Artificial insemination technicians
 - b. Animal biotechnologists: reproductive or nutritional specialists
 - c. Animal geneticists
 - d. Research associates
17. This individual is responsible for the installation, operation and maintenance of computer and robotic systems used in a variety of agricultural sectors. This person works closely with manufacturing staff helping to improve efficiency, safety and troubleshooting.
- a. Automation technician/coordinator
 - b. Mechanical engineer
 - c. Hydraulic technician
 - d. Maintenance/Service technician
18. _____ are responsible for ensuring that a company's profits and other resources are being used in the most adequate way possible. They study a company's budget to find ways to be more efficient and generate more profits. Using this information, they develop reports and presentations for the company communicating their recommendations and findings.
- a. Budget analysts
 - b. Controllers
 - c. Financial analysts
 - d. Pricing coordinators

Environmental Service Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.

Name: _____

- a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
2. Careers in _____ are available in both urban and rural settings, in the field and lab. Protecting wildlife, maintaining parks, consulting with research groups and keeping green areas are important needs.
 - a. environmental service systems
 - b. natural resources systems
 - c. biotechnology systems
 - d. animal systems
3. People in this career look at research and data about our planet's climate. A career in this field can include looking at temperatures, polar ice caps, ocean conditions and greenhouse gases. These individuals utilize climate data to create mathematical models to predict future climate conditions.
 - a. Chief operating officers (COOs)
 - b. Climate change analysts
 - c. Molecular biologists
 - d. Conservation officers
4. This individual studies microscopic roundworms that can transmit diseases and/or attack soil, water and insects and their interaction with plants. This person also develops methods and apparatuses (tools and equipment) for securing representative soil samples containing nematodes.
 - a. Molecular biologist
 - b. Conservation officer
 - c. Nematologist
 - d. Soil scientist
5. These individuals are responsible for scouting crops and identifying pests that can affect a farmer's harvest. Based on their observations, they make recommendations on treatment and suggest to the farm manager products or other methods to control or prevent problems.
 - a. Pest control advisors
 - b. Weed scientists
 - c. Crop advisors
 - d. Soil scientists
6. _____ are responsible for selling products to different companies within the agricultural sector including suppliers, dealers and producers. They focus on selling these products to certain geographical areas by creating growth objectives and sales goals. Furthermore, they develop the trust and confidence of clients through knowledge of products and persuasive presentations and by overcoming objections.
 - a. Sales representatives: food, seed, feed, fuel
 - b. Crops systems specialists
 - c. Sales representatives: feed and animal health
 - d. Grain buyers
7. This individual is responsible for creating and maintaining a positive company brand for both employees and clientele. This person works closely with managers in the process of company actions to ensure maximum exposure and positive relations with the public.
 - a. Chief financial officer (CFO)
 - b. Chief operating officer (COO)
 - c. Public relations specialist
 - d. Production manager
8. People in this career oversee are responsible for managing a company or organization's environmental impact, resources and plans. They provide leadership to address energy use, resource conservation, waste management and any other aspects of a company that directly impacts their environmental footprint.
 - a. Sustainability manager
 - b. Soil scientist
 - c. toxicologist
 - d. Water treatment technician
9. _____ study soil characteristics, map soil types and investigate the responses of soils under certain conditions by researching the chemical composition, structure and properties of soil. They perform scientific experiments, analyze the data collected and develop solutions to problems using quantitative results (results that can be counted, measured and expressed using numbers).
 - a. Crop advisors

Name: _____

- b. Soil scientists
 - c. Crop scouts
 - d. Plant scientists/field agronomists
10. A _____ studies chemicals and their effects on living beings and the environment. The goal is to maintain a good standard of health for the earth and all living things. In agriculture, this individual assists in the evaluation of risks to human health from the use of agricultural products. To do this, this person conducts chemical, physical and toxicological property analyses of chemical substances.
- a. precision agriculture specialist
 - b. storage and hygiene coordinator
 - c. toxicologist
 - d. herdsman
11. _____ are responsible for maintaining operational compliance of wastewater treatment systems and the storage of hazardous waste. They perform daily monitoring of plant functions, which includes assessing daily demands and making appropriate adjustments to meet those demands.
- a. Water treatment technicians
 - b. Environmental science and protection technicians
 - c. Environmental scientists and specialists
 - d. Hydrologists
12. This individual acts as a technical representative and subject matter expert on energies such as wind, solar and water. This person works with public and private sector groups to devise and apply smart solutions to critical climate and energy sector problems.
- a. Energy sales specialist
 - b. Ethanol engineer
 - c. Wind substation technician
 - d. Alternative energy specialist
13. _____ are responsible for developing and managing a financially sound and environmentally safe pest management strategy for customers. They work to develop an Integrated Pest Management (IPM) treatment plan that combines common sense and current, comprehensive information on the lifecycle of the identified pests (such as insects and rodents) and an understanding of how they interact with their environment to manage the pests.
- a. Integrated pest management specialists
 - b. Pesticide technicians
 - c. Crop scouts
 - d. Custom applicators
14. An _____ is responsible for designing educational materials that engage youth, teachers and the public about nature and environmental issues. This individual will often lead environmentally based presentations and field tours to help people understand nature through hands-on learning.
- a. environmental educator
 - b. agricultural science teacher - secondary
 - c. extension faculty member
 - d. extension agent
15. _____ are responsible for undertaking and leading a range of hydrology and hydraulics projects for controlling water as it pertains to irrigation, waste development and flood mitigation. They will assess how and the best ways to control water by performing engineering analyses, conducting field assessments and creating water flow designs.
- a. Environmental science and protection technicians
 - b. Environmental scientists and specialists
 - c. Ethanol engineers
 - d. Water resource engineers
16. _____ manage urban and community farms with regards to crop growing, maintenance, preparation and harvesting of plants. They also engage the community to learn more about farming by developing educational materials, carrying out workshops and leading tours. Additionally, they train and coordinate volunteers and participants and assist in the planning of farm programming.
- a. Farm program coordinators
 - b. Agronomists
 - c. Crop systems specialists
 - d. Crop advisors
17. _____ are employed by businesses to evaluate the accuracy and integrity of finances and internal operations of a business. They may act in an advisory role, making recommendations on company financial

Name: _____

risks and cost-saving measures. Using this information, they will examine and prepare financial documents in written reports explaining their findings.

- a. Auditors
- b. Agricultural financial service representatives (loan officers)
- c. Credit analysts
- d. Financial analysts

18. _____ are responsible for the management of day-to-day company administrative and operational operations of a business. They are often considered the second in the chain of command and report to the chief executive officer (CEO). They must oversee and direct the entire operations division of a company, which can include manufacturing operations, finance, engineering, purchasing, human resources and administration.

- a. Chief operating officers (COOs)
- b. Chief financial officers (CFOs)
- c. Production managers
- d. Organizational development managers

Food Products and Processing Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
2. Careers in _____ study the physical, biological and chemical makeup of foods to improve food safety, create better processes, enhance the nutritional value and shelf-life of foods and even develop new flavors!
 - a. biotechnology systems
 - b. food products and processing systems
 - c. agribusiness systems
 - d. natural resources systems
3. These individuals give advice to clients on their food selections based on their lifestyles, tastes and health needs. They research and stay up to date with nutritional science. They use their knowledge and turn it into understandable practical advice that can be used to improve their clients' health.
 - a. Auditors
 - b. Nutritionists/Dietitians
 - c. Occupational health and safety managers
 - d. Hydrologists
4. These individuals develop and optimize industrial processes for the production and manufacturing of a product. When looking at these processes, it is their goal to improve factors like efficiency, sustainability, quality and safety. They also take overall responsibility for the safe design and operation of the equipment within the area.
 - a. Mechanical engineers
 - b. Mine engineers
 - c. Process engineers
 - d. Electrical engineers
5. In this career, a person purchases produce to be made into other products or resold in a retail environment. This individual manages sourcing strategy, including contracts and negotiations, to improve quality and profitability. Additionally, this person is expected to be an expert in matters related to raw product quality, market trends and perishable inventory management.
 - a. Nutritionist/Dietitian
 - b. Produce inspector
 - c. Hydrologist
 - d. Produce buyer
6. Who is responsible for improving or creating new methods for processing, canning, freezing, storing, packaging or distributing food? This individual will also coordinate, plan, design and execute product development tasks through all stages of development from small- to large-scale trials.
 - a. Process engineer
 - b. Product development food scientist
 - c. Hydrologist
 - d. Produce buyer

Name: _____

7. What career is responsible for planning, developing, delivering and reporting on new products that help to drive growth for businesses? These individuals also assess the profitability of potential new products by performing market research and determining where their company's products could fit in the market compared to the competition. They are involved in every aspect of product development from ideation to launch.
 - a. Product development food scientists
 - b. Procurement specialists
 - c. Product development managers/demand planners
 - d. Production managers
8. This individual is responsible for the management and strategy of a product through the regulatory process, controlling or directing according to rules and laws. Products that are sold in the U.S. are subject to certain regulations based on government requirements.
 - a. Regulatory scientist
 - b. Research and development manager
 - c. Research scientist
 - d. Procurement specialist
9. _____ are responsible for all activities involved in maintaining the cleanliness of their assigned production area. They are responsible for the day-to-day execution of a sanitation team and coordinate their activities using a master sanitation schedule. They also perform daily monitoring to ensure compliance with quality, health and safety standards.
 - a. Process engineers
 - b. Procurement specialists
 - c. Falconers
 - d. Sanitation coordinators
10. In the process of slaughtering, this person processes the slaughtering of beef, sheep, goat, fish, pork and poultry to meet site compliance standards and targets. This individual prepares carcasses for cutting by cleaning and removing parts (organs, skin, feathers, bones, etc.). In some roles, this position may involve supervisory responsibilities including guiding, directing and supporting operators on the line.
 - a. Slaughter processor – general operator
 - b. Slaughter processor – packing/scales
 - c. Slaughter processor – deboning
 - d. Slaughter processor – trimming/cutting
11. In the process of slaughtering, this person works to process slaughtered beef, sheep, goat, pork and/or poultry by cutting the carcass (the body of a livestock animal ready for butchery) to meet compliance standards and targets.
 - a. Slaughter processor – general operator
 - b. Slaughter processor – packing/scales
 - c. Slaughter processor – deboning
 - d. Slaughter processor – trimming/cutting
12. A _____ studies and applies growing processes of grape vines to increase the amount and quality of grapes necessary for wine production. This individual must have an understanding of optimum ripeness and proper harvesting of grapes.
 - a. viticulturist
 - b. horticulturist
 - c. florist
 - d. greenhouse manager
13. _____ combine their knowledge of nutrition, feed ingredient characteristics and feed production technologies to create improved dietary products for animals to ensure that all feeds created are developed within processing and budgetary requirements.
 - a. Feed mill managers
 - b. Feed mill operators
 - c. Formulators
 - d. Feedlot managers
14. This person is responsible for the daily activity and performance at manufacturing and processing facilities. This individual leads by example, providing support to employees and ensuring that they work efficiently and safely, while looking at operations processes to identify areas that could be improved and lead in their development.
 - a. Feed mill operator
 - b. Sawmill operator
 - c. Plant operator
 - d. Feedlot manager

Name: _____

15. A _____ is responsible for grading, sorting and organizing items, food and other agricultural products by size, weight, color or condition. This person will operate production line equipment and sort items on a conveyor belt, load items onto trollies and ensure the factory is kept organized and clean.
 - a. sorter
 - b. maintenance/service technician
 - c. plant operator
 - d. carpenter/laborer
16. A _____ is responsible for the loading and unloading of goods at warehouses and other industrial sites. Using a forklift in a safe manner, this individual will prepare orders for shipment by transporting materials from storage to shipping docks and vice versa.
 - a. heavy equipment operator
 - b. plant operator
 - c. machine/equipment operator
 - d. forklift operator
17. These individuals develop scientific studies and research hypotheses for the investigation of foods and their processing. This research might involve studying the molecular makeup of food, improving food sustainability or enhancing nutritional content.
 - a. Food scientists
 - b. Food production supervisors
 - c. Food technologists
 - d. Food safety specialists/quality control technicians
18. _____ play an important role in coordinating product shipments and transfers by combining aspects of logistics and customer service. They take calls from staff and customers, assist with communications and transfer to the appropriate department as necessary. Additionally, they will take, process and prepare orders for pickup or delivery.
 - a. Administrative assistants
 - b. Dispatchers
 - c. Customer service representatives
 - d. Data processors

Natural Resources Systems

1. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
2. Scientists, technicians and engineers in _____ are focused on preventing the harmful effects of human activities.
 - a. environmental service systems
 - b. natural resources systems
 - c. biotechnology systems
 - d. agricultural education
3. These individuals work with private landowners and federal, state and local governments to manage, improve and protect the planet's natural resources. This career involves advising and consulting with farmers and other stewards of the land about the best practices for improving their land and productivity without damaging the environment.
 - a. Conservationists
 - b. Conservation officers
 - c. Zoologists
 - d. Falconers
4. _____ are responsible for the sales, programming, operation and maintenance of irrigation systems to help producers create healthier and higher yielding crops. They provide system recommendations to fit the needs of a variety of customers: golf courses, farmers, landscaping companies, etc. Additionally, they troubleshoot any problems that may arise with the system and ensure that they are always functioning properly.
 - a. Crop advisors
 - b. Irrigation specialists
 - c. Hydrologists
 - d. Athletic turf managers

Name: _____

5. This person serves as a middleman between commodity traders, commodity marketers and company administration. This individual determines the appropriate prices for products and services using market research and knowledge gained from working closely with the marketing and sales teams.
 - a. Pricing coordinator
 - b. Accountant
 - c. Accounting manager
 - d. Administrative assistant
6. _____ oversee a corporation's benefits program, which could include retirement plans, health insurance and other benefits. They communicate benefits rules and regulations to employees and manage records for benefits.
 - a. Payroll administrators
 - b. Corporate recruiters
 - c. Human resources generalists
 - d. Benefits managers
7. This individual provides a service role by greeting people and attending to inquiries made by customers or company staff. This person may also be required to take charge of outgoing mail, arrange for courier deliveries and assist in simple clerical work, such as copying, typing, receiving payments and ordering office supplies.
 - a. Receptionist
 - b. Administrative assistant
 - c. Accounting manager
 - d. Auditor
8. A _____ studies and oversees the protection and management of an assigned population of one or several species of animals and/or plants. Some people in this career can specialize their work on aquatic animals and be a fisheries biologist.
 - a. wildlife biologist
 - b. conservationist
 - c. environmental science and protection technician
 - d. game warden
9. A(n) _____ provides expert consulting services for the sale and support of precision agriculture products and services. This individual builds credibility with growers and farmers by having a strong understanding of the company's offerings and helping clients select the best precision agriculture solutions for their operations.
 - a. mechanical engineer
 - b. geospatial analytics scientist
 - c. custom applicator
 - d. integrated solutions consultant
10. A _____ is responsible for the entirety of the financial and accounting functions of a business, including managing resources and financial assets of a company and subsidiary companies and providing leadership for the continuous evaluation of short- and long-term strategic financial objectives.
 - a. chief executive officer (CEO)
 - b. chief operating officer (COO)
 - c. chief financial officer (CFO)
 - d. risk management specialist
11. _____ are responsible for generating sales of fuel in an assigned territory through target marketing, competitor analysis and building strong client relationships. They use their specialized knowledge of their company's products to answer customers' questions and offer solutions tailored to their needs.
 - a. Energy sales specialists
 - b. Agricultural science teachers - secondary
 - c. International business development associates
 - d. Alternative energy specialists
12. This individual is responsible for enforcing and implementing environmental laws regarding water, oil, gas, energy and other environmental sectors. In addition, this person must perform environmental compliance audits and implement follow-up corrective actions to ensure compliance with federal, state and local regulations.
 - a. Environmental compliance officer
 - b. Environmental science and protection technician
 - c. Conservationist
 - d. Conservation officer
13. _____ work at the state or federal level, enforcing laws related to hunting and fishing. They patrol an assigned region or area for violators of hunting and fishing laws. They may also be tasked with creating wildlife

Name: _____

conservation programs and presentations for the public. Additionally, they will conduct investigations, interviews and interrogations on wildlife-related violations

- a. Environmental science and protection technicians
- b. Conservationists
- c. Game wardens
- d. Conservation officers

14. A(n) _____ studies the earth's crust, minerals, rocks, precious metals, gems and fossils. This individual uses various equipment such as magnetometers (instrument for measuring the strength and sometimes the direction of magnetic fields), seismographs (an instrument that measures and records details of earthquakes) and gravimeters (instrument that measures Earth's gravitational field) to prepare maps and charts, explore minerals, oils and natural gas and locate underground water resources.

- a. geologist
- b. ecologist
- c. environmental scientist and specialist
- d. environmental engineer

15. A _____ assesses, integrates, manipulates and extracts data from Global Positioning Systems (GPS) and other databases to improve software platforms used in precision agriculture.

- a. automation technician/coordinator
- b. biostatistician
- c. geospatial analytics scientist
- d. precision agriculture specialist

16. This individual examines the physical characteristics, distribution and movement of water above and below the earth's surface. This person researches and understands the movement and impact of water in the environment. They design dams, ponds, piping and pumping systems and sewage systems for rainfall.

- a. Hydrologist
- b. Water treatment technician
- c. Nutrient management/waste management specialist
- d. Aquaculturist

17. _____ support the analytical needs of a business through the analysis of system data and summary reports. Their collections and reports contribute to decision making for improvements for their specialty area.

- a. Information technology (IT) configurators
- b. Information technology (IT) programmers
- c. Information technology (IT) analysts
- d. Information technology (IT) software developers

18. A(n) _____ is responsible for ensuring that the products at agricultural facilities are properly accounted for and stored. This individual will work with production teams to monitor inventory levels and ensure agricultural facilities operate at full capacity.

- a. inventory/stock specialist
- b. purchasing analyst
- c. commodity procurement/merchandiser
- d. livestock buyer

Plant Systems

1. This is a type of scientist who focuses specifically on the study of insects. This individual examines growth, behavior and nutrition of insects and how they interact with plants.

- a. Plant scientist
- b. Horticulturist
- c. Entomologist
- d. Biostatistician

2. _____ support all aspects of a company's compensation programs, processes and initiatives. They assist in the implementation and administration of base pay and incentive programs. They also contribute to the research of market trends and regulatory requirements.

- a. Compensation specialists
- b. Payroll administrators
- c. Corporate recruiters
- d. Human resources generalists

3. _____ are responsible for producing and maintaining sporting grounds. They ensure the turf and surrounds are pristine. They plan, oversee and manage major athletic grounds and field renovation projects.

- a. Crop advisors
- b. Landscape managers

Name: _____

- c. Athletic turf managers
 - d. Golf course superintendents
4. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
- a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
5. This person performs inspections of farmers' fields and records weeds, insects, diseases and other observations to help farmers make timely, informed and economical field-crop decisions. This individual must walk customer fields often to look for potential pests and situations that impact yields and then make recommendations to the producer based on those findings.
- a. Crop advisor
 - b. Crop scout
 - c. Crop systems specialist
 - d. Crop adjuster
6. These individuals grow crops, typically in greenhouses, using a water solution that is rich in nutrients instead of soil. They must choose cost-effective plants best for this type of system that are each appropriate for the growing season and oversee the maintenance and growing of those crops.
- a. Crop advisors
 - b. Crop scouts
 - c. Hydrologists
 - d. Hydroponics producers
7. _____ manage and direct the maintenance, management and operation of golf courses. They conduct routine inspection of equipment and vehicles to ensure productivity and safety of the facility. Additionally, they oversee the current and future applications to maintain quality turf and adjust as concerns arise.
- a. Golf course superintendents
 - b. Irrigation specialists
 - c. Laboratory technicians
 - d. Landscape designers
8. These individuals prepare blueprints, coordinate contracts with customers, propose plans and oversee the development of landscapes, typically for companies or groups that provide landscaping design and maintenance services for companies or individuals. They create garden design blueprints using perennials, annual color, edibles, containers and outdoor furniture.
- a. Golf course superintendents
 - b. Landscape designers
 - c. Landscape technicians
 - d. Laboratory technicians
9. These individuals conduct research to understand, improve or create new varieties of plants or crops. Looking at a plant's DNA, they can examine ways to improve shape, size, production level, and pesticide and disease tolerance.
- a. Plant pathologists
 - b. Laboratory technicians
 - c. Plant scientists/field agronomists
 - d. Plant geneticists
10. _____ study the health of plants. They work to identify diseases, pests and other health problems a plant may experience.
- a. Plant pathologists
 - b. Laboratory technicians
 - c. Plant scientists/field agronomists
 - d. Plant geneticists
11. A _____ oversees all operations involved in cotton ginning processes and maintains working relationships with the United States Department of Agriculture (USDA) Cotton Classing offices, cotton producers, employees and others.
- a. warehouse/facility manager
 - b. retail branch manager

Name: _____

- c. cotton gin and warehouse manager
 - d. production manager
12. A _____ provides a full array of recruiting services to an organization including sourcing, attracting and selecting talent to work for a company. Most individuals work for staffing agencies and work in collaboration with hiring managers at partnering companies. They work to establish recruiting strategies to identify top talent and target both active and passive job seekers.
- a. college recruiter
 - b. corporate recruiter
 - c. payroll administrator
 - d. human resources generalist
13. These individuals are responsible for the management and execution of all phases of seed production to ensure a high-quality, reliable and timely supply is delivered to the facility.
- a. Field agronomists
 - b. Seed production technicians
 - c. Geneticists
 - d. Seed production agronomists
14. _____ implement the scheduling, treatment and fumigation of grain and other products. They inspect properties, identify problems, determine treatments and provide estimates of costs for replacement.
- a. Apiary workers
 - b. Dealer services representatives
 - c. Biological technicians
 - d. Storage and hygiene coordinators
15. These individuals study wild plants growing in competition with cultivated plants. This research might involve investigating the responses of wild plants under certain conditions, learning how to manage vegetation, and studying the use of herbicides and alternative methods to manage propagation of wild plants.
- a. Weed scientists
 - b. Nematologists
 - c. Environmental scientists and specialists
 - d. Toxicologists
16. A(n) _____ oversees a community garden or farm facility with the focus of bringing people within that community together and connecting them to where their food comes from. Community supported agriculture allows people to explore how traditional farming methods have changed while sharing the risks and rewards across multiple stakeholders.
- a. extension agent
 - b. agricultural science teacher – secondary
 - c. community/urban farmer
 - d. extension youth program coordinator
17. A(n) _____ takes steps to control pests in fields, landscaping, commercial buildings and personal residences. This individual is ultimately responsible for working with customers to identify the pest causing a problem, create a plan to exterminate the pest and apply the appropriate pesticides (a substance intended for preventing, removing or destroying pests such as insects or rodents).
- a. pesticide technician
 - b. integrated pest management specialist
 - c. crop scout
 - d. custom applicator
18. These individuals are responsible for buying crops and agricultural products either to process them or resell them to customers. They build relationships with producers and sellers by providing them with tailored services and purchasing products at a fair price. Additionally, they will evaluate suppliers, negotiate purchasing agreements and follow market trends.
- a. Merchants
 - b. Commodity procurement/merchandisers
 - c. Grain buyers
 - d. Procurement specialists

Power, Structural and Technical Systems

1. Professionals in _____ apply knowledge of engineering, hydraulics, pneumatics, electronics, power, structures and controls to the field of agriculture.
- a. plant systems
 - b. biotechnology systems

Name: _____

- c. power, structural and technical systems
 - d. natural resources systems
2. _____ assemble parts for machines or agricultural equipment while maintaining quality workmanship and require at least a high school diploma or associate degree.
- a. Assembly technicians
 - b. Automation technicians/coordinators
 - c. Bioinformatics scientists
 - d. Carpenters/Laborers
3. _____ maintain efficient and proper parts for agricultural equipment and related goods. They will operate the department at maximum production while controlling costs, maintaining inventory records, and providing warranty and service support.
- a. Parts managers
 - b. Assembly technicians
 - c. Automation technicians/coordinators
 - d. Packaging engineers
4. _____ are the primary contact between two companies in a business-to-business relationship. These individuals support the dealers and field personnel with resources, answers and information through verbal, written and electronic communication channels. In addition, they will generate a weekly report detailing frequent product issues brought up by dealers.
- a. Fleet managers
 - b. Dealer services representatives
 - c. Office managers
 - d. Customer service representatives
5. A(n) _____ is responsible for the design, development, repair and testing of electrical systems, components and devices. This individual works with manufacturing, quality assurance, supply management, sales and marketing teams to ensure that equipment is installed per design and meets specs.
- a. electrical engineer
 - b. mechanical engineer
 - c. hydraulic technician
 - d. maintenance/service technician
6. A(n) _____ provides support to the chief executive officer (CEO) or president of the company while also serving as the primary business administrator for the head office. On behalf of the CEO, this person plans, coordinates, schedules and conducts secretarial activities.
- a. executive assistant
 - b. administrative assistant
 - c. customer service representative
 - d. office manager
7. A _____ is responsible for the management of goods, materials, services and/or equipment of either a division of a company or an entire company. This individual is responsible for ensuring that companies have enough materials for production and coordinate finished products leaving the facility through contract negotiations and service programs.
- a. parts manager
 - b. pricing coordinator
 - c. supply chain manager
 - d. storage and hygiene coordinator
8. _____ efficiently and safely pick up, transport and deliver feed, ingredients, equipment or livestock to processing facilities. They operate and drive primarily tractor-trailer, long-combination vehicles and straight-body trucks over long distances. During their deliveries, they complete pre-trip inspections, monitor all goods during the trip and document all activities.
- a. Truck drivers
 - b. Heavy equipment operators
 - c. Forklift operators
 - d. Livestock haulers
9. A(n) _____, or bulk handler, is responsible for operating equipment used to load, unload, move, store and stack bulk, dry materials such as grain, sugar and flour. This person controls material loading by using electronic data capture systems that weigh and handle products.
- a. weighbridge/receivable associate
 - b. export sales manager
 - c. warehouse/facility manager

Name: _____

- d. supply chain manager
- 10. These individuals study and apply engineering science and design principles for the use and development of agricultural land, buildings, machines and equipment across a diverse set of agricultural projects. They design, build and test equipment and processes that reduce operation costs, eliminate emissions, improve operator safety and improve sustainable agriculture practices.
 - a. Process engineers
 - b. Design engineers
 - c. Agricultural engineers
 - d. Ethanol engineers
- 11. This person is responsible for directing and managing the operation of a business during a specific time such as a day or night. This individual will delegate tasks to employees and ensure that workers are completing their job duties while adhering to shift goals.
 - a. Shift manager
 - b. Office manager
 - c. Customer service representative
 - d. Data processor
- 12. A(n) _____ inspects, diagnoses, troubleshoots, repairs and verifies the repair of large equipment such as front-end loaders, dozers, dump trucks and compactors. During repairs, this person will work on multiple systems such as electrical, hydraulics and diesel and use a range of tools.
 - a. mechanical electrician/electronics technician
 - b. assembly technician
 - c. heavy duty equipment technician
 - d. service manager
- 13. _____ study and analyze genetic systems using technology and mathematical modeling techniques. In agriculture, this research might include genotyping animals to better understand genetic variations, predicting the best type of crops to plant or finding ways to protect pollinator species like bees. They perform scientific experiments, analyze the data collected and develop solutions to problems using quantitative results.
 - a. Genomics scientists
 - b. Geospatial analytics scientists
 - c. Patent scientists/patent attorneys
 - d. Bioinformatics scientists
- 14. A(n) _____ oversees the coordinating, managing and reporting of all domestic shipments (within the same country) and international inbound/outbound shipments of products. This individual understands the ins and outs of creating shipments, packing and fulfilling orders and coordinating various moving parts to ensure orders are shipped out timely and accurately.
 - a. logistics specialist
 - b. export sales manager
 - c. supply chain manager
 - d. port terminal manager
- 15. A _____ is responsible for managing the movement, storage and distribution of finished goods after they have left the manufacturing line. With the help of warehouse staff, this person ensures trucks are loaded and unloaded properly and all scheduled outbound shipments are delivered on time.
 - a. cotton gin and warehouse manager
 - b. finished goods supervisor
 - c. production manager
 - d. fleet manager
- 16. These individuals support daily operations of production and manufacturing facilities for a given department. Working closely with production supervisors, they provide leadership and manage work teams while monitoring manufacturing and packaging procedures.
 - a. Production leads
 - b. Cotton gin and warehouse managers
 - c. Production managers
 - d. Fleet managers
- 17. A _____ is responsible for coordinating and regulating an organization's transportation-related operational activities. This person will schedule the movement of transportation vehicles, aircraft and railroad cars and ensure that deliveries and orders arrive on time.
 - a. supply chain manager
 - b. transportation manager

Name: _____

- c. port terminal manager
 - d. fleet manager
18. An _____ ensures that writing, testing and maintenance of computer programs and applications are analyzed to meet user and process needs. This individual designs all or part of an information system and oversees program design activities to ensure they meet business process objectives.
- a. information technology (IT) programmer
 - b. information technology (IT) configurator
 - c. information technology (IT) software developer
 - d. information technology (IT) specialist

Skilled Trades Systems

1. Which career would be a great option for someone who loves animals but does not want to attend college after high school?
 - a. Veterinarian
 - b. Veterinary technician
 - c. Pet groomer
 - d. Animal geneticist
2. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
 - a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
3. This career is responsible for applying essential pesticides, fertilizer or fungicides to crops while operating planes safely and responsibly. This person will work to keep the airplane and equipment properly maintained while documenting chemical applications that are then reported to the grower.
 - a. Aerial applicator/agriculture pilot
 - b. Automation technician/coordinator
 - c. Precision agriculture specialist
 - d. Crop scout
4. This career is responsible for constructing agricultural buildings and structures, such as barns, sheds, grain bins, mills, plants, elevators and more.
 - a. Construction foreman
 - b. Mechanical engineer
 - c. Logger
 - d. Carpenter/Laborer
5. This person performs general maintenance duties and assists others in mechanical and carpentry-related duties. This individual can construct, install and repair structures of wood, plywood, wallboard and other wood-based materials used in buildings.
 - a. Construction foreman
 - b. Mechanical engineer
 - c. Carpenter/Laborer
 - d. Construction foreman
6. A(n) _____ specializes in the hoof care of equine, such as horses, ponies, mules and donkeys. Typically, these individuals clean, trim and shoe horses' hooves to maintain the animal's well-being and mobility.
 - a. farrier
 - b. falconer
 - c. zoologist
 - d. apiary worker
7. Who oversees and assists in the daily work completed at a fishery while ensuring fish are healthy, properly housed and fed and is responsible for general maintenance around the facility? Additionally, this person assists biologists and technicians in various natural resource management practices or research activities.
 - a. Fisheries technician
 - b. Fleet manager
 - c. Hydrologist
 - d. Marine biologist
8. These individuals, also known as lumberjacks or timber fallers, work in the wood/timber industry cutting down trees and processing them into logs. They use chain saws and other specialty logging equipment to remove excess limbs and branches and trim logs into specific lengths at the cutting site.
 - a. Carpenters/Laborers

Name: _____

- b. Loggers
 - c. Hydrologists
 - d. Construction foremans
9. _____ manage, design and maintain landscaped properties. This includes growing and transplanting a variety of trees, shrubs, annuals, perennials and construction of hardscapes. They follow plans and specifications, inspecting and directing the planting of landscape materials associated with improvement, beautification and erosion control.
- a. Landscape technicians
 - b. Custom applicators
 - c. Crop scouts
 - d. Crop advisors
10. A _____ assists in the sale of animals at public auctions by helping farmers in selecting and organizing bringing their livestock to the sale and signaling bids from audience members while maintaining crowd control. These individuals also use their knowledge to track desirable qualities of livestock, average prices and market trends across the industry.
- a. livestock auctioneer
 - b. livestock/meat grader
 - c. livestock buyer
 - d. commodity procurement/merchandiser
11. These individuals work alongside a veterinarian to assist in the care and medical treatment of sick or injured animals. They administer medications and collect samples such as blood and urine for testing. Furthermore, they maintain medical records of animals and keep a sanitary and sterile environment in the veterinary office.
- a. Veterinary assistants
 - b. Food animal veterinarians
 - c. Small animal veterinarians
 - d. Veterinary technicians
12. A _____ performs installation, maintenance and testing of wind energy collection sites where the power from wind turbines is gathered. These individuals perform inspections of wind turbines and equipment associated with wind energy and document work performed. Additionally, they act promptly in reporting to the site manager any facility or equipment deficiencies in case of damage or emergency situations.
- a. maintenance/service technician
 - b. mechanical engineer
 - c. carpenter/laborer
 - d. wind substation technician
13. This individual is responsible for maintaining and repairing different kinds of farm equipment such as combines and tractors. This person troubleshoots issues and fixes them by inspecting engines, mechanical/electrical components and hydraulic systems.
- a. Mechanic
 - b. Mechanical electrician/electronics technician
 - c. Automation technician/coordinator
 - d. Wind turbine technician
14. _____ are responsible for installing, repairing and troubleshooting mechanical equipment at sites such as production plants, farms and construction sites. They will use a variety of hand tools and equipment for cutting. Plus, they weld, interpret diagrams and create schematic drawings to complete a project.
- a. Maintenance/Service technicians
 - b. Millwrights
 - c. Mechanical engineers
 - d. Mechanics
15. _____ fabricate (construct or manufacture) and install metal sheets for various applications including agricultural and farm equipment. These individuals maneuver and anchor large pieces of metal and will fasten seams or joints by welding, bolting, riveting or soldering based on the application, blueprints and sketches.
- a. Sheet metal workers
 - b. Heavy equipment operators
 - c. Plant operators
 - d. Welders
16. A _____ is responsible for maintaining and repairing equipment and machines that use pressurized fluids to carry power from one place to another. This person is responsible for fabricating, repairing, installing and commissioning hydraulic and mechanical systems.
- a. maintenance/service technician

Name: _____

- b. mechanical engineer
 - c. carpenter/laborer
 - d. hydraulic technician
17. These individuals use birds of prey such as eagles, hawks, falcons or owls to analyze and control behavioral patterns in pest bird species such as pigeons, gulls, starlings and sparrows. They also trap, euthanize, exterminate or relocate pest animals and wildlife affecting agricultural production.
- a. Falconers
 - b. Conservationists
 - c. Animal physical therapists
 - d. Animal/Horse trainers
18. _____ direct, implement, audit and evaluate the maintenance, installation, and repair of cooling and refrigeration systems in the manufacturing and processing sectors. They play an important role in food safety. Additionally, they supervise the removal and placement of carcasses in cold storage rooms and supervise the packing of meat and count packs before freezing.
- a. Storage and hygiene coordinators
 - b. Food safety specialists
 - c. Freezer/Refrigeration specialists
 - d. Food safety/quality assurance managers

Sustainability Systems

1. _____ assist conservation and environmental scientists in studying living organisms and their life cycles, mostly within a laboratory setting.
- a. Environmental engineers
 - b. Biological technicians
 - c. Ecologists
 - d. Climate change analysts
2. _____ are responsible for general farm operations including feeding and care of fish grown in a saltwater habitat. Their duties require them to test and maintain saltwater levels to promote optimal growth of fish produced in a saltwater environment.
- a. Ecologists
 - b. Saltwater husbandry technicians
 - c. Aquaculture hatchery managers
 - d. Apiary workers
3. Careers in _____ develop engaged citizens who understand the importance of the agriculture industry to our world while teaching them technical skills in all areas of agriculture.
- a. biotechnology systems
 - b. agricultural education
 - c. agribusiness systems
 - d. natural resources systems
4. This career works to convert biomass (plant-based materials used as fuel) into fuels such as ethanol and biodiesel and chemicals to create more sustainable solutions to fuel our planet. Individuals in this career are responsible for the operation of all plant processing equipment in a highly automated chemical facility.
- a. Energy sales specialist
 - b. Dealer services representative
 - c. Biorefining manager
 - d. Ethanol engineer
5. Individuals in this career study the relationships of organisms and their environment. In addition to their research, they gather and analyze data and study environmental problems to determine what caused the problem and how to improve the situation. Additionally, they provide the public with educational programs on how to protect species of plants and animals in their area.
- a. Ecologist
 - b. Conservationist
 - c. Energy sales specialist
 - d. Apiary worker
6. These individuals study and complete research on aquatic organisms and their habitats. They design controlled laboratory and natural field experiments to meet their objectives. Additionally, they complete various tests including habitat assessments, fish salvage, water quality, sediment, vegetation and wildlife surveys.
- a. Molecular biologists

Name: _____

- b. Laboratory technicians
 - c. Marine biologists
 - d. Microbiologists
7. This person ensures that the appropriate communication messages and mediums are used to meet sales targets. Their work uses research to find the best means for their company to reach the target demographic for a particular product or service.
- a. Marketing specialist
 - b. Social media strategist
 - c. Public relations specialist
 - d. Communications specialist
8. A _____ is responsible for overseeing process improvement plans within companies. In agriculture, this might include helping to find ways to reduce waste, improve the efficiency of equipment or create better working conditions for employees. This individual is responsible for tracking the progress of projects and updating all necessary documentation for projects.
- a. feed mill operator
 - b. process/continuous improvement manager
 - c. storage and hygiene coordinator
 - d. freezer/refrigeration specialist
9. A _____ investigates the connections between organisms and the environment in a variety of settings and makes recommendations for improvements to reestablish natural ecosystems. Much of this work will typically include assisting in the implementation of those recommendations.
- a. restoration specialist
 - b. research technician
 - c. molecular biologist
 - d. conservationist
10. These individuals combat and prevent forest or prairie fires. They reside in fire towers to observe a particular area for fires and then notify the proper authorities. They also monitor for signs of fires, dispatch and relay information to emergency personnel and serve as a firefighter and/or engine operator during wildfire suppression.
- a. Conservationist
 - b. Conservation officer
 - c. Restoration specialist
 - d. Wildland firefighter/fire tower watchman
11. A(n) _____ studies and oversees the protection and management of an assigned population of one or several species of animals and/or plants. Some people in this career can specialize their work on aquatic animals and be a fisheries biologist.
- a. wildlife biologist
 - b. conservationist
 - c. environmental science and protection technician
 - d. game warden
12. _____ are responsible for the installation, maintenance and repair of wind turbines. They conduct basic cleaning and maintenance of wind turbines and are always focused on safety.
- a. Maintenance/Service technicians
 - b. Mechanical engineers
 - c. Wind turbine technicians
 - d. Wind substation technicians
13. This individual studies the behavior of animals and wildlife and studies the diseases and genetics of animals across the globe or in specific areas. After conducting research activities and experiments around animal health and behavior, this person creates plans and strategies to help animals recover from illness, injury or habitat change.
- a. Zoologist
 - b. Animal biotechnologist: reproductive or nutritional specialist
 - c. Herdperson
 - d. Animal caretaker
14. A(n) _____ is responsible for helping companies and organizations on the execution of sustainability strategies. In agriculture, this might include making recommendations on waste management, soil health, green building practices or improving the efficiency of production practices. This individual is responsible for planning, tracking and implementing sustainability programs.
- a. sustainability manager
 - b. restoration specialist

Name: _____

- c. environmental compliance officer
 - d. sustainability specialist
15. A _____ develops and hypothesizes scientific experiments that help solve problems across agricultural fields. Either in a laboratory setting or out in the field, these professionals will carry out experiments, analyze data and develop reports based on the conclusions they have discovered.
- a. research scientist
 - b. research station manager
 - c. plant biologist
 - d. plant pathologist
16. This individual is responsible for enforcing and implementing environmental laws regarding water, oil, gas, energy and other environmental sectors. In addition, this person must perform environmental compliance audits and implement follow-up corrective actions to ensure compliance with federal, state and local regulations.
- a. Environmental compliance officer
 - b. Environmental science and protection technician
 - c. Conservationist
 - d. Conservation officer
17. _____ investigate issues within the environment and design solutions in areas such as water, air pollution and waste management. Additionally, they use scientific data to analyze naturally occurring environmental weather patterns and make recommendations for preserving habitats. They also provide training to fellow employees on environmental compliance practices.
- a. Environmental science and protection technicians
 - b. Environmental engineers
 - c. Environmental scientists and specialists
 - d. Conservationists
18. _____ will typically work under the direction of a lead environmental scientist, biologist or ecologist to conduct environmental monitoring through lab and field testing. Additionally, they will make recommendations to control or eliminate unsafe conditions at workplaces or public facilities.
- a. Environmental engineers
 - b. Environmental scientists and specialists
 - c. Environmental science and protection technicians
 - d. Conservationists