

Vocational Education
Half Yearly Exam
Class 8
Sample Paper
Answer Key

Section A(20*1=20)

Bridge course

Q 1) Symbol diagram of 10 components.

Q2)

1. Polyvinyl Chloride
2. Liquide crystal display
3. Printed circuit board
4. Nutrient film technique
5. Deep water culture

Q3)

1. MOP, Broom or anything
2. Hacksaw, Plane, any other tool
3. Screwdriver, Tester, any other tool
4. Plier, Pipe wrench, any other tool
5. Axe, Hand Gloves, any other tool

Section B (6*5=30)

Project-1(Hydroponics: Growing Plants without Soil)

Q4) Hydroponic is one of the solutions that allows plant to be grown without soil.

Advantage- 1. Reduce pesticide use.

2. Increase water efficiency.

Disadvantage- 1. High Initial Cost

2. Need technical experts.

Q5) Fill bucket, add ingredients, add food source, aerate, filter and use.

Q6) The **Nutrient Film Technique (NFT)** in hydroponics uses a thin flowing layer of nutrient-rich water that continuously passes over plant roots in sloping channels, giving nutrients, oxygen, and water efficiently.

Q7) Hydroponics requires containers or tanks for water, nutrient solution, and support systems for plants. Growing mediums like coco-peat, perlite, or clay pellets are used instead of soil.

Pumps and pipes are needed for water circulation.

- Q8) Spider plant, English ivy, Lucky bamboo. Peace lily. Money tree.
- Q9) In hydroponics, water is recycled in a closed system. The nutrient-rich water is continuously supplied to the plants, and unused water is collected back into the tank. This prevents wastage compared to soil farming, where water seeps underground.

OR

Project-2(Feeding and Caring for Farm Animals)

Q4) Proper feeding is important because it helps animals grow healthy, stay disease-free, and produce better milk, eggs, or meat. Balanced food gives energy, proteins, vitamins, and minerals required for their development.

Q5) Farm animals are given two main types of food: roughage and concentrates. Roughage includes green grass, hay, and straw that provide fiber for digestion. Concentrates like grains, oil cakes, and bran are rich in protein, carbohydrates, and minerals.

Q6) Farm animals should be given clean water, fresh food, and proper shelter daily. Their sheds must be kept clean and dry to prevent diseases. Regular grooming, bathing, and exercise keep them healthy. Vaccination and deworming should be done on time

Q7) Vaccination protects farm animals from dangerous diseases like foot-and-mouth disease, anthrax, or rabies. It helps improve immunity and reduces the chances of infection. Healthy animals live longer and give better milk, eggs, and meat.

Q8) Animals must be fed fresh and clean food to avoid stomach problems. Overfeeding should be avoided as it causes obesity and illness. Dirty or spoiled fodder should never be given. Feeding should be done at fixed times every day.

Q9) Pet animals are- Dog, Cat, Rabbit, Hamster, fish etc.

Section C (2*5=10)

Project-3(Working with Wood and Bamboo)

Q10) Wood is widely used for making furniture, doors, windows, flooring, toys, tools, and decorative items. It is durable, easy to shape, and provides strength. Wood is also used in building construction and as fuel. Its natural texture makes it attractive, and it remains one of the most traditional and essential materials for human needs.

Q11) Bamboo grows very fast and can be harvested within 3–5 years, making it a renewable resource. It does not require chemical fertilizers and improves soil health. Bamboo absorbs large amounts of carbon dioxide and releases oxygen, helping fight climate change. Its strength, light weight, and flexibility make it an excellent sustainable alternative to wood and plastics.

Q12) Bamboo is lightweight yet strong, making it easy to carry and durable for daily use. It is flexible, allowing craftsmen to bend and weave it into furniture, baskets, mats, and decorative items. Bamboo is cheaper than wood and eco-friendly. It resists pests when treated properly and has a natural beauty that enhances household and craft products

OR

Project-4(Home Automation)

Q10) Devices used in home automation include smart lights, fans, thermostats, security cameras, smart locks, sensors, and voice assistants like Alexa or Google Assistant. Smart plugs and timers also help in controlling appliances. These devices can be connected to Wi-Fi and operated through smartphones or remote controls for ease and safety.

Q11) Home automation helps reduce energy wastage by automatically switching off lights, fans, or air conditioners when not in use. Smart thermostats adjust temperatures efficiently. Motion sensors turn lights on or off based on presence. By controlling appliances remotely, users ensure they consume energy only when required, reducing electricity bills and protecting the environment.

Q12) While using home automation, users should ensure devices are connected to secure Wi-Fi to avoid hacking. Regular software updates must be done. Appliances must not be overloaded with smart plugs. Children should not operate without guidance. Backup systems should be available in case of power failure. Safe usage ensures long-lasting and reliable functioning of devices.