

Cacti Honour Booklet



Name: _____
Church: _____
Club: _____
Class _____
Due Date: _____

In order to successfully complete this honour, you must:

1. Satisfactorily complete this Booklet. The pass mark is 75%. The number of marks allocated for each question is given in [] – maximum 52 marks; **and**
2. Pass the Cacti Honour Exam. The pass mark is 60%.

Booklet Score	_____	
Exam Score	_____	
Honour Granted	Yes <input type="checkbox"/>	No <input type="checkbox"/>
_____ Authorized Signature		

1. What are Cacti? [1]

Cacti could be considered the best known family of _____ – plants that store large quantities of water in their leaves, stems, or roots, giving them a fleshy character

2. Chief characteristics of a cactus: [11]

2.1 Cushion-like structures on the stem of a cactus are called _____. Spines, flowers and branches sprout from these structures. The structures are not integrated into the stem, therefore if one is detached, the stem is not damaged and water inside is preserved.

2.2 _____ are probably the most easily identifiable feature of cacti, and vary greatly in appearance, shape, size and colour. They help the cactus in several ways:

- a. _____ against foragers
- b. _____, for some varieties
- c. Lowering the stem temperature by reflecting _____ away from the stem
- d. Prevent loss of _____ via evaporative cooling by trapping a layer of air next to the cactus stem.

- 2.3 Cactus _____ usually have an indefinite number of sepals, petals and numerous stamens; hence they are typically quite spectacular and very complex.
- 2.4 Most cacti carry out photosynthesis inside the stem instead of inside _____. Most cacti do not have leaves, and on some of the few that do, they are tiny. A plant with many leaves presents a large surface area capable of losing water vapour, and in the desert, a leafy plant would quickly exhaust its water reserves. Photosynthesis inside the stem preserves the water stores for cacti, but limits photosynthesis efficiency and results in slow growth.
- 2.5 All cacti are _____ to the Americas (North America, Central America & the Caribbean and South America). The only exception is the *Rhipsalis Baccifera*, which is native to the Americas and the Old World (Africa, Asia and Europe).
- 2.6 The cactus _____ is a one-celled berry, smooth or spiny, with seeds scattered throughout.
- 2.7 Cacti are _____ plants – they live for at least two years.
- 2.8 Cacti are caulocarpic – they do not die after flowering.

3. Some Uses of Cacti [5]

- 3.1 _____ – e.g. potted plants, houseplants, ornamental gardens.
- 3.2 _____ – fences
- 3.3 _____ – e.g. species such as the prickly pear which produces dragon fruit or nopal which is popular in Mexico.
- 3.4 _____ – some skeletons of dead cacti are used for making wood.
- 3.5 _____ – some species contain mescaline, a hallucinogenic drug capable of inducing visions.
- 3.6 Host for bugs – Plant used as a host for the female cochineal insect. A crimson dye is processed from the body of this insect.

4. Cacti Environment [10]

- 4.1 Although the largest number and variety of cacti may grow in _____, they also grow in _____, _____, and _____ habitats.

4.2 They thrive in low-lying and warm _____ and _____, in the full blaze of the _____, or they inhabit rocky and arid slopes of high _____ systems, where extremes of sullen heat and bitter cold are common.

4.3 Certain species are covered with _____ in winter whilst others live on the _____ trunks of trees in tropical or sub-tropical forests or on ledges of rocks in deep ravines where they receive ample shade, warmth and a moist soil rich in humus.

5. Write the correct name for each cactus shown on the line below. [15]







Native to Jamaica





Skeleton of dead plants used for making furniture.



(Barrel cactus)



(Strawberry hedgehog)



(San Pedro Cactus)



(Desert Christmas Cactus)



(Queen of the Night)

6. Photograph, sketch or include pictures of at least 10 species of cacti (do not repeat any of the cacti above) and classify them or grow at least 3 different species of cacti.

CACTI HONOUR REQUIREMENTS

Level 1 Year 1944 General Conference

1. Name the chief characteristics of a cactus.
2. Name three uses of cacti.
3. In what places are cacti the most plentiful? Why?
4. Know and identify from life or pictures 15 species of cacti.
5. Photograph, observe or sketch at least 10 species of cacti and classify them or grow at least 3 different species of cacti.