FREQUENTLY ASKED QUESTIONS:

Q.no.1. Define fruit.

The term fruit botanically refers to the mature ovary of a plant, including its seeds, covering and any closely connected tissue. The fruit is the developed ripened ovary or ovaries of a single flower. It may include other parts of the same flower which are also modified in nature adnate to and ripen with the ovary. As related to food, fruit refers to the edible part of a plant that consists of the seeds and surrounding tissues. This includes fleshy fruits (such as blueberries, cantaloupe, poach, pumpkin, tomato) and dry fruits, where the ripened ovary wall becomes papery, leathery, or woody as with cereal grains, pulses (mature beans and peas) and nuts.

Q.no.2. What are true fruits?

Ans. True fruit are derived from the gynaecium only e.g tomatoe

Q.no.3. What are false fruits?

Ans. These fruits are developed from the gynaecium and other floral parts e.g apple and strawberry

Q.no.4. What are Simple fruit?

Ans. Such fruits formed of single or syncarpous ovary (single flower) e.g fennel, capsicum

Q.no.5. What are Aggregate fruit?

Ans Such fruits develope from apocarpous gynaecium e.g staranise

Q.no.6. What are Composite fruits?

Ans. These fruits are formed from the whole inflorescence e.g figs, strawberry, long pepper

Q.no.7. What are Berries?

Ans. Berries are fruits with layers of pericarp (fruit coat) which are often homogenous, except for the skin on the outside. The pericarp layers are pulpous and juicy, and contain seeds embedded in the pulp mass. The fruits have fragile cell structure that is damaged by rough handling or freezing.

Q.no.8. What are Citrus fruits?

Ans. These fruits belong to the genus Citrus which contains about 16 species of evergreen aromatic shrubs and trees mostly with thorny branches distributed throughout the tropical and subtropical regions of the world. The common citrus fruits are orange, lemon

and lime. The bright colour, pleasing flavour and sweetness make them a favourite fruit. They are served as juice and can be eaten raw

Q.no.9. What are Drupes?

Ans. Drupes are edible fruits with a thin skin, and juicy flesh enclosing a single seed (Stone). Apricots, cherries, peaches and plums belong to this group.

Q.no.10. What are Melons?

Ans. Melons belong to the same family as cucumbers (Cucurbitaceae). Melons are commonly eaten raw. Their flesh consists of about 94% water and only 5% sugars. The seeds stripped of their hard coats may be eaten and also yield an edible oil.

Q.no.11. What are Pomes?

Ans. Pomes are fruits of apple and pear trees. The receptacle surrounds the ovaries in the flower, enlarges to become edible and juicy, and encloses the cells containing the seeds. Fruits particularly citrus varieties and guava are a good source of vitamin C. Yellow fruits like mango and papaya contain carotene. Banana is a good source of carbohydrate and hence energy. Fruits are

a poor source of protein and fat with the exception of avocado. Fruits also contain fibre and minerals such as sodium, potassium and magnesium. They are not a good source of calcium. Dry fruits, seethaphal and watermelon contribute appreciable amounts of iron.

Q.no.12. Differentiate between climacteric and non climacteric fruits

Climateric fruits: these fruits ripen faster after harvesting; have higher respiration rate, high respiration quotient (volume of CO_2 evolved/ volume of O_2 consumed) produce large ethylene and have low shelf life. e.g Peach, plums, apricot, apple, pear, water melon and musk melon.

Non climacteric fruits: These fruits ripen at lower rate after harvesting, lower respiration rate, low respiration quotient (volume of CO_2 evolved/ volume of O_2 consumed) and more shelf life. e.g Lemon, lime, orange, sweet lime.

Q.no.13. Describe the role fruit fibers in terms of health benefits.

Ans. Fiber is often referred to as unavailable carbohydrate. Fiber is a generic term that includes those plant constituents that are resistant to digestion by secretions of the human gastrointestinal

tract. Fiber has mainly a regulatory function in the human body. Dietary fiber is present in fruits in amounts that may be as high as 7% of the eatable part of the fruit. Within fiber, the most common components in fruits are celluloses, hemicelluloses, and pectins. Pectins are important in the technological process, since they may be deeply modified and this modification not only has an influence on the nutritional value of the final food, but also has an impact on the texture and palatability of the product.

Fiber, together with vitamins, is the main nutritional reason for using fruits for a balanced diet. There are several fiber-associated substances that are found in fruit fiber, which may have some nutritional interest. Among them are phytates, saponins, tannins, lectins, and enzyme inhibitors. Saponins, which are mainly present in some tropical fruits, may enhance the binding of bile acids to fiber and reduce cholesterol absorption. Tannins are polyphenolic compounds widely distributed in fruits, which can bind proteins and metals and reduce their absorption. Lectins, which are present in bananas and some berries, are glycoproteins that can bind specific sugars and affect the absorption of other nutrients.

The RDA for fiber is 25–30 g/day, depending on age and sex, except in the case of children from 1 to 3 years, in which case it is 19 g/day.

Q.no.14. High light the significance of fruits in terms of vit C.

Ans. Antioxidants have important roles in cell function and have been implicated in processes that have their origins in oxidative stress, including vascular processes, inflammatory damage, and cancer. L-Ascorbic acid (L-AA, vitamin C, ascorbate) is the most effective and least toxic antioxidant. Vitamin C may also contribute to the maintenance of a healthy vasculature and to a reduction in atherogenesis through the regulation of collagen synthesis, prostacyclin production, and nitric oxide. An increase in intake of vitamin C is associated with health status. Vitamin C is an essential nutrient for humans; unlike most mammals, we cannot synthesize vitamin C, and therefore must acquire it from the diet. For adults, dietary needs are met by a minimum intake of 60 mg/day. However, the preventative functions of vitamin C in aging related diseases provide compelling arguments for an increase in dietary intakes and RDAs. The primary contributors to daily vitamin intake are fruit juices (21% of total), whereas all fruits together contributed nearly 45% of total vitamin C intake. Relatively high amounts of vitamin C are found in strawberries and citrus fruits, although the availability of vitamin C within these food sources will be influenced by numerous factors. Virtually

all of the vitamin C in Western diets is derived from fruits and vegetables. In general, fruits tend to be the best food sources of the vitamin. Especially rich sources of vitamin C are blackcurrant (200 mg/100 g), strawberry (60 mg/100 g), and the citrus fruits (30–50 mg/100 g). Not all fruits contain such levels, and apples, pears, and plums represent only a very modest source of vitamin C (3–5 mg/100 g).