

Total No. of printed pages = 6

**END SEMESTER EXAMINATION – 2019**

Semester : 6th

Subject Code : FPT-614

**FERMENTED AND NON-FERMENTED  
BEVERAGES**

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks  
for the questions.

**Instructions :**

1. Questions on PART – A are compulsory.
2. Answer any *five* questions from PART – B.

PART – A

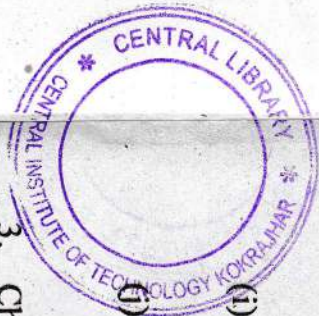
Marks – 25

1. Fill in the blanks : 1×10=10
  - (a) Total soluble solids in fruit cordial is \_\_\_\_\_.
  - (b) \_\_\_\_\_ is the largest Indian food and beverage company.
  - (c) Vintage dating of wine is followed to indicate the \_\_\_\_\_ of the crop harvesting.

[Turn over

- (d) Grapes are harvested at a stage when sugar content is \_\_\_\_\_ for wine production.
- (e) Ale beer is made using \_\_\_\_\_ yeast.
- (f) Koji is a \_\_\_\_\_ rich in amylases and proteases.
- (g) \_\_\_\_\_ is a rice beer produced using *Rhizopus sonii*.
- (h) Primary fermentation of red wine occurs over a period of \_\_\_\_\_ days.
- (i) The expressed grape juice used for wine production is called \_\_\_\_\_.
- (j) During \_\_\_\_\_ process, wine is kept in wooden barrels.
2. Write true or false :  $1 \times 10 = 10$
- (a) Beverages are consumed mainly for their thirst quenching properties or for their stimulating effect.
- (b) Sucrose is the most commonly used sweetener in soft drink.
- (c) Tea contain more caffeine than coffee.

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- (d) Roasting of coffee promotes caramalization of carbohydrates.
- (e) During withering of tea leaves proteins are hydrolyzed to amino acids and transaminated finally to keto acids.
- (f) The leaf grade tea is the highest quality.
- (g) A non-alcoholic beverage is a drink that contains little or no alcohol.
- (h) Fermentation is a metabolic process undergone by anaerobic microbes.
- (i) The aroma and flavour in brandy is due to oxidation and esterification reaction.
- (j) Dry wine do not contain any fermentable sugars.
3. Choose the correct answers :  $1 \times 5 = 5$
- (a) Fruit squash contain fruit juice
- (i) 25% (ii) 40%
- (iii) 15% (iv) 20%
- (b) Wine defects include
- (i) turbidity (ii) cloudiness
- (iii) precipitation (iv) All of these

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- (c) Berries of *Juniper communis* are used for the production of
- |           |            |
|-----------|------------|
| (i) Beer  | (ii) Gin   |
| (iii) Rum | (iv) Vodka |
- (d) The primary stimulants in cocoa products are
- |                |                  |
|----------------|------------------|
| (i) Protein    | (ii) Theobromine |
| (iii) Caffeine | (iv) Polyphenol  |
- (e) CTC means
- cutting, tearing and curling
  - cutting, turning and curling
  - curling, tearing and cutting
  - control, tearing and cutting

PART - B

Marks - 45

4. Answer the following questions :  $3 \times 3 = 9$
- What is non-carbonated beverages ? What are the principal groups of non-carbonated beverages ?
  - What are black tea, green tea and oolong tea ?

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(4)

70(W)



- (c) Write the biochemical reaction involved in vinegar production.

5. Write short notes on :  $3 \times 3 = 9$

- Toddy
- Types of wine
- Arrack

6. Answer the following questions :  $3 \times 3 = 9$

- (a) Write about the various wastes produced in beverage industry.

- (b) What is Hops ? Discuss the importance of hops in Beer manufacturing.

(c) What is carbonation ? What are the advantages of carbonation in beverages ?



7. Answer the following questions :

- (a) What is the purpose of malting ? How does malt prepared ? 3

- (b) Explain the objectives of brewing step in beer production. 4

- (c) What is saccharification ? 2

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(5)

Turn over

8. Answer the following questions :
- (a) Discuss the microbial spoilage of soft drinks. 5
  - (b) Explain some nutritional value of soft drinks. 4
9. Answer the following questions :  $4.5 \times 2 = 9$
- (a) Discuss the adverse effects of soft drinks on human health and the reasons behind them.
  - (b) Explain the method of brandy production with proper flowchart.
10. Write about the various fruit beverages. 9
11. Write a detail note on the status and scope of alcoholic beverages in North-East India. 9
12. Describe the ingredients used and formulation of soft drinks. 9

