**Ph.D. COMMON ENTRANCE TEST**

**SUBJECT – FOOD TECHNOLOGY**

**Roll No:**

**PART B**

**Duration: 60 minutes Maximum Marks: 50**

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| **Instructions:**   1. **This entrance test question paper is not to be taken out of the examination hall** 2. **Question paper consists of Section A and Section B** 3. **Section A consists of 30 MCQs carrying 1 Mark each. Write the Alphabet of the correct answer in the space given.** 4. **Section B consists of Descriptive questions carrying 5 marks each. Restrict your answer to 500 words. Additional plain sheets have been attached to the question paper to answer Section B** |

**SECTION – A**

**Answer the following questions by writing the Alphabet of the correct answer in the Box given: 30 X 1 = 30**

1.What can be potential hazards in refrigerated storage

a. Bacterial growth

b. Cross contamination

c. Food beyond date marking

d. All of the above

2.Which of the following is not ideal regarding the refrigerated storage

a. Maintain temperatures of 0-5°C

b. Do not place hot foods directly in the refrigerator as this will cause the temperature of the refrigerator to rise above 5°C

c. Do not defrost and clean the fridge or freezer box regularly

d. Do not overload the fridge as cold air needs to be allowed to circulate

3.Plastids contain

a. Fat soluble materials

b. Protein soluble materials

c. Carbohydrate soluble materials

d. Fat insoluble materials

4.Phytochemicals are

a. Nutritive substances

b. Non-nutritive substances

c. Both above

d. None of the above

5.The central metal of chlorophyll is

a. Calcium

b. Iron

c. Magnesium

d. Florine

6.The natural enzyme “Pectin methyl esterase” present in fruits is deactivated at

a. 10 ˚C

b. 30 ˚C

c. 50 ˚C

d. 80 ˚C

7.Tannins are soluble in

a. Oil

b. Water

c. Both above

d. None of the above

8. The MSNF means

a. Milk Solid Not Fat

b. Milk Solid Natural Fat

c. Milk Solid Non Fat

d. Milk Standardized Natural Fat

9.The primary Protein in Milk is

a. Casein

b. Tryptophan

c. Lysine

d. Agrinine

10.The optimum temperature of growth of thermophilic bacteria is

a. 35°C

b. 45°C

c. 55°C

d. 75°C

11. Drying rate is influenced by

a. Surface area

b. Air velocity

c. RH

d. All of these

12.The bacterium capable of anaerobic nitrogen fixing is

a. Azotobacter

b. Bacillus

c. Clostridium

d. Rhizopus

13. Generation time of Escherichia coli is

a. 20 secs

b. 20 mins

c. 20 hours

d. 20 days

14. Yeast is an important source of

a. Vitamin-C

b. Vitamin-B

c. Vitamin-A

d. Vitamin-D

15. Vitamin C and vitamin E, BHA and BHT, and sulfites are all

a. Flavour enhancer

b. Antimicrobial agent

c. Incidental food agent

d. Antioxidants

16. Vitamin which is not found in Fruits and Vegetables is

a. Vitamin B12

b. Vitamin A

c. Vitamin B2

d. Vitamin C

17. Mono-Sodium Glutamate is used as

a. Source of amino acid

b. Flavour enhancer

c. Binder

d. Moisture retainer

18. If a product is said to be "Sugar Free" it contains how much sugar?

a. None

b. Less than 0.5 grams of sugar per serving

c. Less than 10.0 grams

d. Not more than 40 kcal per serving

19. Which of the following is not a natural colour

a. Cyanidine-3-glucoside

b. Chlorophyll

c. Sunset yellow

d. Annato

20. Which portion of wheat is rich in starch

a. Endosperm

b. Bran

c. Germ

d. None

21. Porosity of the food grains will be in the range of \_\_\_\_\_%

a. 10-20 %

b. 40-50 %

c. 50-60 %

d. 30-40 %

22. Angle of repose of food grains vary from \_\_\_\_\_ degrees

a. 10-20°

b. 25-35°

c. 45-50°

d. more than 50°

23. Firmness of fruits relates

a. force and depth of penetration

b. force and time of application

c. depth of penetration and time

d. All the above

24. The S.I Unit for Joule is \_\_\_\_\_\_\_\_\_\_

a. kgm/s2

b. kg/s2

c. kgm/s

d. m/s2

25. Screening is

a. Separation of the particles according to size alone

b. Separation of the particles according to shape alone

c. Separation of the particles according to Moisture content alone

d. Separation of the particles according to magnetic properties alone

26. Attrition mill is also known as

a. plate mill

b. disc pulveriser

c. Both A & B

d. None of the above

27. HTST process is also called as

a. Flash pasteurization

b. Light pasteurization

c. Impulse pasteurization

d. None of the above

28. The main purpose of pasteurization in low acid foods

a. destruction of pathogenic microorganisms

b. killing spoilage microorganisms

c. enzyme inactivation

d. None of the above

29. Hurdle Technology is best for food \_\_\_\_

a. heating

b. cooling

c. processing

d. preservation

30. Bulk density connects

a. mass and bulk volume

b. mass and true volume

c. mass and volume

d. bulk volume and porosity

**Section - B**

**Answer any four questions (Each question carry 5 marks 4\*5 = 20**

1. Compare the benefits of prebiotic and probiotic foods with suitable examples.

2. Write a detail note on grading and sorting operations in food industries.

3. Summarize on various phytochemicals found in functional foods.

4. Critically comment on “Glycemic Index and Glycemic load in Indian breakfast”.

5. Categorize various unit operations involved in food processing.

6. Elaborate on HACCP and its principles, strengthen your answer with a suitable Industrial example