

Ph.D. Entrance Examination of FOOD SCIENCE AND TECHNOLOGY

- Q1. _____ is the driving force for the reactions in food based on the principles of thermodynamics
- Moisture Content on Dry Basis
 - Moisture Content on Wet Basis
 - Water Activity
 - Moisture Sorption Isotherm
- Q2. In India, ----- is fortified with iron, folic acid, and Vitamin B12.
- Oat Flour
 - Wheat Flour
 - Soy Flour
 - Rice and Wheat Flour
- Q3. One of the following statements is not true about Irradiation
- Gamma rays emitted by radioactive sources are having very low penetrative power as compared to Electron beams
 - Food Irradiation is also termed as cold pasteurization.
 - Both electron beams and X-rays are produced by machine sources.
 - Microorganisms are easily eliminated owing to disruption of bonds between base pairs in their DNA molecule.
- Q4. Method of raising the temperature of an electrically conductive material by subjecting it to an alternating electromagnetic field is known as.....
- Ultra-High Voltage Electric Fields
 - Pulse Electric Fields
 - Induction Heating
 - Ohmic Heating
- Q5. Value is the time in minutes at a given temperature required to destroy 1 log cycle of the target microorganism.
- Z value
 - F value
 - D value
 - F° value
- Q6. The following is the main component of pectin.
- D-Galacturonic acid
 - D-Glucouronic acid
 - D-Galactonic acid
 - D-Mannuronic acid.
- Q7. In the Coffee Bean structure, Endocarp is also known as
- Pulp
 - Silverskin
 - Mucilage
 - Parchment
- Q8. The solubility of carbon dioxide in the beverages decrease as the temperature
- Decreases
 - Increases
 - Remains constant
 - Decreases then increases
- Q9. The carbon dioxide is soluble in water because of its
- Molecular weight
 - Charge
 - Number of ions
 - Mass

- Q10. Supercritical fluids have
- a density similar to liquid,
 - a viscosity similar to gas
 - a diffusion coefficient that is intermediate between liquid and gas.
 - All the above
- Q11. The following pigment is responsible for pink colour after curing of meat.
- Metmyoglobin
 - Reduced myoglobin
 - Oxymyoglobin
 - Nitrosylhemochrome
- Q12. Example of soft cheese is
- Cheddar
 - Cottage
 - Brick
 - Swiss
- Q13. The enzymeshould be inactivated prior to homogenization by pre-heating milk.
- Peroxidase
 - Protease
 - Lactase
 - Lipase
- Q14. Menthol responsible for flavour is a
- Ketone
 - Phenol
 - Aldehyde
 - Terpene
- Q15. If the addition of heat does not change temperature , it is called
- Latent Heat
 - Sensible Heat
 - Super Heat
 - Saturated Heat
- Q16. If the moisture content on dry basis is 25%, then would be moisture content on wet basis.
- 25%
 - 22%
 - 18%
 - 20%
- Q17. The is the average material moisture content at which the drying rate begins to decline.
- Equilibrium Moisture Content
 - Falling Rate Period
 - Constant Drying Period
 - Critical Moisture Content
- Q18. When the dry and wet bulb temperature are same , the RH of air will be
- 0 %
 - 50%
 - 100%
 - 150%
- Q19. Pectinases constitute a heterogeneous group of enzymes that break down complex polysaccharides of plant tissues into simpler molecules like galacturonic acids.
- Lipases
 - Pectinases
 - Proteases
 - Amylases

- Q20. protein contains low level of lysine and threonine.
- Rice
 - Wheat
 - Barley
 - Millets
- Q21. The shelling of paddy by centrifugal dehusker is due to
- Impact
 - Shear
 - Crushing
 - Rubbing
- Q22. For size reduction, the following methods is/are used
- Cutting
 - Crushing
 - Compression
 - All of the above
- Q23. Break Rolls and Reduction rolls are used in
- Rice Milling
 - Wheat Milling
 - Burr Milling
 - Spice Grinding
- Q24. The term blow molding is used during the production of
- Metal Can
 - Plastic Bottles
 - Plastic Laminates
 - All of the above
- Q25. Which is the following metallic ion having a potential for antimicrobial effect and is used in active packaging.
- Fe
 - Na
 - Ca
 - Ag
- Q26. Which packaging is considered as the Primary Packaging
- Inner Packaging
 - Individual Packaging
 - External Packaging
 - Smart Packaging
- Q27. Stassanization is the
- Centrifugation force to remove the microbial spores
 - Flash Pasteurization
 - Thermization
 - Sterilization
- Q28. Which of the following statement is true
- Mycotoxins are toxic substances produced by fungi.
 - Aflatoxins are produced mainly by *Aspergillus flavus* and *Aspergillus parasiticus*.
 - Mycotoxins are heat-tolerant, they will not be affected by drying and most food and feed processing operations.
 - All above are correct.
- Q29. Which statement is true
- Beta carotene is a vitamin A precursor (retinol) and the most important of the provitamins A.
 - Lycopene is a non-provitamin A carotenoid.
 - Lycopene is an organic compound classified as a tetraterpene.
 - All above are correct statements.

- Q30 Which one of the functional ingredients improves gastrointestinal health and calcium absorption.
- Fructo-oligosaccharides
 - Sterols
 - PUFA
 - Vitamin C
- Q31. Probiotics are foods or supplements that
- contain live microorganisms intended to maintain or improve the good bacteria (normal microflora) in the body.
 - (Typically, high-fiber foods) that act as food for human microflora.
 - used with the intention of improving the balance of microorganisms.
 - Foods such as whole grains, bananas, greens, onions, garlic and soybeans.
- Q32. Nutraceutical food is
- Has curative effect on diseases.
 - Beneficial effect on health beyond nutrition.
 - Preventive effect on diseases.
 - Antiaging effect.
- Q33. Rigor Mortis is caused due to
- Breakage of protein molecule in the sarcoplasm
 - Decrease in body temperature
 - Unavailability of ATP to break bond between actin and myosin.
 - Rupturing of tissue due to availability of Oxygen.
- Q34. The enzymes used for removal of glucose from egg white prior to drying consist of
- Glucoamylase and Glucose Oxidase
 - Glucosidase and Glucoisomerase
 - Glucose oxidase and Catalase
 - Glucoisomerase and Glucoamylase
- Q35. Viruses that infect bacteria, multiply and cause their lysis is called as
- Lysosomes
 - Lipolytic
 - Lytic
 - Lysogenic
- Q36. The red beetroot (*Beta vulgaris* L.) is a good source of red and yellow pigments known as
- Lycopene
 - Beta Carotene
 - Curcumin
 - Betalain
- Q37. Which of the following is not a natural colour.
- Cyanidine 3 glucoside
 - Chlorophyll
 - Sunset Yellow FCF
 - Annato
- Q38 The Anti-Nutritional factor in the fava bean is
- Gossypol
 - Curcine
 - Cyanogen
 - Vicine
- Q39. The more will be the heating of honey, more will be existing of
- Glucose
 - Fructose
 - Glucose Oxidase
 - HMF
- Q40. People recovering from long illness are often advised to include alga spirulina in their diet because of
- Easy digestion of food
 - Rich in proteins
 - Probiotic food
 - Antibiotic food

ANSWER KEY FOOD SCIENCE AND TECHNOLOGY

question no	answer
1	c
2	d
3	a
4	c
5	c
6	a
7	d
8	b
9	b
10	d
11	d
12	b
13	d
14	d
15	a
16	d
17	d
18	c
19	b
20	a
21	a
22	d
23	b
24	b
25	d
26	b
27	b
28	d
29	d
30	a
31	a
32	b
33	c
34	c
35	c
36	d
37	c
38	d
39	d
40	b

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