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PD - 25

Total No. of Pages : 12

Ph.d Entrance Examination March/April, 2026

FOOD TECHNOLOGY ENGINEERING

(For M. E. / M. Tech. Students)

Subject Code : 87257

Day and Date : Wednesday, 07-Oct-2026

Total Marks : 100

Time : 04.00 p.m. to 06.00 p.m.

Instructions :

- 1) All questions are compulsory.
- 2) Each question carries 2 marks.
- 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
- 4) Use black ball point pen only for marking the circle. Do not make any stray mark on the OMR answer sheet.
- 5) Follow the instructions given on OMR Sheet.
- 6) Rough work shall be done on the sheet provided at the end of question paper.
- 7) Only non-programmable calculators are allowed.

SECTION-1

1. The from theory leads to hypothesis
 - A) Deduction
 - B) induction
 - C) logical deduction
 - D) observation
2. A qualitative research problem statement:
 - A. Specifies the research methods to be utilized
 - B. Specifies a research hypothesis
 - C. Expresses a relationship between variables
 - D. Conveys a sense of emerging design

3. Sample size depends on
 - A. Type of problem investigated
 - B. Resources available
 - C. Required precision
 - D. all of them
4. "One of the methods of logical reasoning process" is called
 - A. Induction
 - B) Deduction
 - C) Research
 - D) Experiment
5. Summarizing raw data and displaying them on compact statistical tables for analysis
 - A. Tabulation
 - B) Coding
 - C) Transcription
 - D) Editing
6. In which sample population is divided into different strata and sample is taken from different strata?
 - A. Quota Sampling
 - B. Snow ball sampling
 - C. Stratified sampling
 - D. Purposive Sampling
7. Population value is called
 - A. Statistic
 - B) Parameter
 - C) Variable
 - D) Core value
8. Schedule is used as a
 - A. Questionnaire
 - B) Tool
 - C) Method
 - D) technique

9. Methodology could best be described as:
- A. The science of knowing
 - B. The science of finding out
 - C. The discovery of reality through personal experience
 - D. The discovery of reality through agreement
10. Scientific evidence should be based on
- A. Systematic and comprehensive observations
 - B. A large and diverse sample of observations
 - C. Observations gathered in ways that avoid the influence of researcher biases
 - D. All of above
11. ANOVA is
- A. The name of a statistical software package
 - B. A government body which collects social statistics
 - C. A one-way analysis of variance
 - D. None of these
12. The is a preferred sampling method for the population with finite size.
- A. Area sampling
 - B. Cluster sampling
 - C. Purposive sampling
 - D. Systematic sampling
13. When data is classified according to the magnitude it is called
- A. Chronological
 - B. Qualitative
 - C. quantitative
 - D. continuous

14. A review of the literature prior to formulating research questions allows researcher to
- A. Provide an up-to-date understanding of the subject, its significance, and structure
 - B. Guide the development of research questions
 - C. Present the kinds of research methodologies used in previous studies
 - D. All of the above
15. A graph that uses vertical bars to represent data is called:
- A. A bar chart
 - B. A pie chart
 - C. A line graph
 - D. A vertical graph
16. Which research paradigm is most concerned about generalizing its findings?
- A. Quantitative research
 - B. Qualitative research
 - C. Mixed-methods research
 - D. All of the above
17. A variable that is presumed to cause a change in another variable is called:
- A. An intervening variable
 - B. A dependent variable
 - C. An independent variable
 - D. A numerical variable
18. When each member of a population has an equal chance of being selected, this is called:
- A. A snowball sample
 - B. A stratified sample
 - C. A random probability sample
 - D. A non-random sample
19. The main purpose of research in education is to
- A. Help in the personal growth of an individual
 - B. Help the candidate become an eminent educationist
 - C. Increase job prospects of an individual
 - D. Increase social status of an individual

20. The starting point for a literature search is
- A. primary data
 - B. tertiary data
 - C. secondary data
 - D. some other data
21. Which of the following should not be a criterion for a good research project?
- A. Demonstrates the abilities of the researcher
 - B. Is dependent on the completion of other projects
 - C. Demonstrates the integration of different fields of knowledge
 - D. Develops the skills of the researcher
22. Which scientific method focuses on testing hypotheses developed from theories?
- A. Deductive method
 - B. Inductive method
 - C. Hypothesis method
 - D. Pattern method
23. Hypothesis which explain relationship between two variables is
- A) casual
 - B) rational
 - C) descriptive
 - D) tentative
24. The is a statistical technique that identifies homogenous subgroups.
- A. Factor analysis
 - B. Multivariate analysis of variance
 - C. Cluster analysis
 - D. Discriminant analysis
25. When a hypothesis is stated negatively it is called
- A. Relational Hypothesis
 - B. Situational Hypothesis
 - C. Null Hypothesis
 - D. Casual Hypothesis

SECTION-II

26. The time required for stipulated destruction of a microbial population at a given temperature is.....
- A. D-value
B. F-value
C. z-value
D. Q10 value
27. The wet bulb temperature of an air-water vapor mixture is the dry bulb temperature
- A. Lower than
B. higher than
C. equal to
D. None of above
28. Each turn of α -helix contains the amino acid residues (number):
- A. 3.6
B. 3.0
C. 4.2
D. 4.5
29. The operating speed of the ball mill should be..... the critical speed
- A. Less than
B. Much more than
C. At least equal to
D. None of these
30. In a typical bacterial growth curve, the first order kinetics for growth rate is observed in
- A. Lag phase
B. Log phase
C. Stationary phase
D. Death phase
31. The synthetic form of Vitamin K is called:
- A. Menaquinone
B. Menadione
C. Hydroquinone
D. Phylloquinone
32. The maximum dosage of irradiation permitted for Mango by FSSR is
- A. 0.09 KGy
B. 0.15 KGy
C. 0.75 KGy
D. 4.00 KGy

33. Which of the following tests is commonly used in the determination of flour water absorption?

- A. Extensograph B. Farinograph
C. Alveograph D. Polygraph

34. Flooding results in....

- A. High tray efficiency
- B. Low tray efficiency
- C. High gas velocity
- D. Good contact between the fluids

35. Nisin A is produced by

- A. *Aspergillus niger*
B. *Acetobacter aceti*
C. *Lactobacillus lactis*
D. *Clostridium perfringens*

36. Which among the followings is NOT an essential amino acid?

- A. L-Phenylalanine B. L-Valine
C. L-Lysine D. L-Arginine

37. In the early stages of a filtration cycle, it frequently happens that the filter resistance is large relative to the resistance of the filter cake because the cake is thin. This known as

- A. Constant-rate Filtration
- B. Constant-Pressure Filtration
- C. sinusoidal Filtration
- D. None of above

38. Identify the Gram +ve bacteria responsible for causing food borne diseases among the followings
- A. Campylobacter jejuni
 - B. Clostridium botulinum
 - C. Vibrio cholera
 - D. Salmonella typhi
39. Which of the following material is used as a primary package in biscuits?
- A. PE
 - B. LDPE
 - C. PVC
 - D. BOPP
40. Ultra high temperature (UHT) process of pasteurization of milk is achieved by Heating at
- A. 145°F for 30 minutes
 - B. 161°F for 15 seconds
 - C. 280°F for 2 seconds
 - D. 400°F for 15 seconds
41. Identify the correct statement(s) related to grain polysaccharides among the followings.
- A. Dextrin are a group of low molecular weight polysaccharides produced by dry hydrolysis of starch.
 - B. Amylose is a linear polymer of D-glucose units joined by a (1?6) glycoside linkages.
 - C. Amylopectin is a branched chain polymer of D-galactose monomer units.
 - D. Amylopectin is a linear polymer of D-glucose units joined by a (1-6) glycoside linkages.
42. Penicillin is made employing
- A. Continuous fermentation process
 - B. Aerobic batch fermentation
 - C. Anaerobic batch fermentation
 - D. None of these

43. BOPP stands for
- A. Biaxially Oriented Polypropylene
 - B. Biodegradable Oxidized Polypropylene
 - C. Biodegradable and Oriented polypropylene
 - D. None of above
44. The thermal conductivity of ice is approximately a factor of the thermal conductivity of liquid water.
- A. four times smaller than
 - B. eight times larger than
 - C. Four times larger than
 - D. eight times smaller than
45. The assembly which gives shapes to the product when it leaves extruder is
- A. Screw
 - B. Die plate
 - C. Barrel
 - D. Vent
46. Twin screw extruders are generally categorized according to the
- A. Length of screw
 - B. Direction of screw rotation
 - C. Diameter of screw
 - D. Weight of screw
47. High-moisture corn pops at a
- A. High-temperature
 - B. Moderate-temperature
 - C. Low-temperature
 - D. None of above
48. The gas, or components of it, if extracts a volatile component from the liquid, the process is known as.....
- A. desorption
 - B. absorption
 - C. Both of above
 - D. None of above

49. Which of the followings is NOT a fermented food product?

A. Tofu

B. Vinegar

C. Sauerkraut

D. Tempeh

50. Hardening of oil is caused by

A. H_2

B. N_2

C. O_2

D. CO_2



- Rough Work -

- Rough Work -