Seat No.

M.Phil. /Ph.D.
Entrance Examination - 2024
FOOD TECHNOLOGY ENGINEERING
(For M.E./M.Tech. Students)
Sub Code: 87257

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Day and Date : Tuesday, 12-11-2024   **Total Marks : 100**

Time : 10.00 a.m. to 12.00 noon

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Instructions :

1) All questions are compulsory.

2) Each question carries 2 marks.

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SECTION-I

1. .... refers to inferring about the whole population based on the observations made on a small part.

    A. Pseudo-inference   B. Objective inference

    C. Inductive inference   D. Deductive inference

2. A .... is an abstraction formed by generalization from particulars

    A. Hypothesis   B. Variable

    C. Concept   D. Facts

3. Random sampling is helpful as it is ....

    A. Reasonably accurate

    B. Free from personal biases

    C. An economical method of data collection

    D. All the above

4. The .... is not used as a measure of association for nominal, nonparametric variables

   A. Chi-square
   B. Phi

   C. Cramer's v
   D. Z score

5. Which one among the following statement is true in the context of the testing of hypotheses?

   A. It is only the alternative hypotheses that can be tested.

   B. It is only the null hypotheses that can be tested.

   C. Both the alternative and the null hypotheses can be tested.

   D. Both the alternative and the null hypotheses cannot be tested.

6. When a research problem is related to heterogeneous population, the most suitable sampling method is:

   A. Cluster Sampling
   B. Stratified Sampling

   C. Convenient Sampling
   D. Lottery Method

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8. .... design concerns with the question of how many items are to be observed and how the information and data gathered are to be analysed

   A. Statistical design
   B. Observational design

   C. Operational design
   D. Sampling design

9. What does a significant result in a chi-square test imply?

   A. That homogeneity of variance has not been established

   B. That there is a significant difference between the three categorical variables included in the analysis

   C. It implies that the sample is not representative of the population

   D. All of these are possible

10. In order to pursue the research, which of the following is required on priority?

    A. Developing a research design

    B. Formulating a research question

    C. Deciding about the data analysis procedure

    D. Formulating a research hypothesis

11. Working hypothesis is tentative .... made in order to draw out and test its logical or empirical consequences

    A. Solution   B. Problem

    C. Diagram   D. Assumption

12. A researcher is interested in studying the prospects of a particular political party in an urban area. So, what tool should he prefer for the study?

    A. Rating Scale   B. Interview

    C. Questionnaire   D. Schedule

13. Mean, Median and Mode are ....

    A. Measures of deviation   B. Ways of sampling

    C. Measures of control tendency   D. None of the above

14. How to judge the depth of any research?

    A. By research title   B. By research duration

    C. By research objectives   D. By total expenditure on research

15. Which one is called non-probability sampling?

    A. Quota sampling

    B. Cluster sampling

    C. Systematic sampling

    D. Stratified random sampling

16. Which measure of central tendency includes the magnitude of scores?

    A. Mean   B. Mode

    C. Median   D. Range

17. Which technique is generally followed when the population is finite?

    A. Systematic Sampling Technique

    B. Purposive Sampling Technique

    C. Area Sampling Technique

    D. None of the above

18. The simple correlation coefficient takes values between

    A. 1 and +1   B. 0 and 1

    C. 0 and 1   D. None of these

19. What is the use of Factorial Analysis?

    A. For setting the hypotheses

    B. To understand the difference between two variables

    C. To understand the relationship between two variables

    D. To understand the difference between various variables

20. Identifying causes of a problem and possible solution to a problem is ....

    A. Field Study   B. Diagnostic study

    C. Action study   D. Pilot study

21. Which of the following statements sounds like a null hypothesis?

    A. The coin is not fair

    B. There is a correlation in the population

    C. There is no difference between male and female incomes in the population

    D. The defendant is guilty

22. Sampling error may arise due to

    A. Error of Origin   B. Error of Inadequacy

    C. Error of Manipulation   D. All of the above

23. Accepting a null hypothesis when it is false is called as

    A. Type I erro?   B. Type II error

    C. Type III error   D. None of these

24. Snowball sampling is used for data collection through

    A. Connecting Relations   B. Small population

    C. Representatives   D. None of these

25. Idea generation by two or more people thinking as freely as possible is formally known as:

    A. Gap analysis   B. Learning curve

    C. Brain storming   D. None of these

SECTION-II

26. The Number of OH groups in fatty acids can be expressed as:

    A. Polenske Number   B. Reichert- Meissl Number

    C. Acetyl Number   D. Iodine Number

27. Ratio of inertia force to viscous force is called

    A. Nusselt Number   B. Reynold's Number

    C. Prandtl Ntimber   D. Newton's Number

28. Enzyme used in chill proofing of beer.

    A. Pectinase   B. Protease

    C. Lipase   D. Amylase

29. BIS has headquarters located at

    A. Kolkata   B. Mumbai

    C. New Delhi   D. Bangalore

30. The degree in Fahrenheit required to reduce the thermal death time tenfold is

    A. D value   B. F value

    C. Z value   D. Lethal rate

31. Cavitation bubbles are formed in which processing method

    A. High Pressure Processing

    B. PEF

    C. Ultrasound processing

    D. Ohmic processing

32. Restriction enzymes are used in genetic engineering because they

    A. Can join DNA fragment

    B. Cut DNA at specific base sequence

    C. Can join RNA fragment

    D. Are proteolytic enzymes which degrade proteins

33. A fatty acid which is not synthesized in the body and has to be supplied in the diet is ....

    A. Palmitic acid   B. Lauric acid

    C. Linolenic acid   D. Palmitoleic acid

34. Golden Rice variety of rice is genetically engineered to biosynthesize

    A. a-carotene

    B. y-carotene

    C. B-carotene

    D. Lycopene

35. Dielectric constant of a food materials depends upon

    A. Solid Content

    B. Moisture Content

    C. Density

    D. Electrical Conductivity

36. Formation of mRNA from DNA is called

    A. Transformation

    B. Transduction

    C. Translation

    D. Transcription

37. A large sugar is created and stored in the liver for emergencies that process is

    A. Gluconeogenesis

    B. Glycogenolysis

    C. Glycogenesis

    D. Glycolysis

38. In which of the following tests flour property is measured by inflating dough sheet by air?

    A. Extensograph

    B. Farinograph

    C. Alveograph

    D. Polygraph

39. Thermal analysis is defined as

    A. Measurement of concentration of materials as a function of temperature

    B. Measurement of solubility of materials as a function of temperature

    C. Measurement of physical properties as a function of temperature

    D. Measurement of line positions of crystals as a function of temperature

40. In boiling point diagram, the saturated vapour curve is called

    A. Triple point

    B. Boiling point

    C. Dew point

    D. Saturation point

41. Tomato Paste is good example of

    A. Newtonian fluid
    B. Non Newtonian fluid
    C. Dilatant
    D. Rheopectic

42. Liquids with ....vapor pressures (Volatile compounds) require relatively little energy (heat) to increase the vapor pressure to match the applied (atmospheric) pressure, and thus, boil.

    A. Low
    B. Medium
    C. high
    D. None of above

43. 0.1 MN/sq. meter is equal to

    A. 1,00,000 Pa
    B. 1,000 Pa
    C. 1,00,000 KPa
    D. 10,000 KPa

44. This involves treating a finely divided solid with a liquid that dissolves out and removes a solute contained in the solid

    A. Absorption
    B. Adsorption
    C. Liquid- liquid extraction
    D. liquid- solid leaching

45. The pressure at any point in a liquid at rest; equal to the depth of the liquid multiplied by its density. This is called as

    A. Hydrostatic Pressure
    B. Hydrostatic Equilibrium
    C. Specific Gravity
    D. Specific Equilibrium

46. Distillation is done on the basis of differences in their ....

    A. Volatilities
    B. Pressures
    C. Temperatures
    D. Both A and B

47. In this process, a component is removed from the gas stream by treatment with a liquid.

    A. Absorption
    B. Adsorption
    C. Liquid-liquid extraction
    D. Filtration

48. In some mixtures, uniformity is achieved after a given period and then unmixing begins.

    A. False   B. True

    C. None of A and B   D. Both A and B

49. An aromatic amino acid is

    A. Lysine   B. Tyrosine

    C. Taurine   D. Arginine

50. Those cakes which do not get compressed are knows as .... cakes

    A. Imcompressible   B. Incompressible

    C. Compressible   D. None of above

□□□

- Rough -