

Test Booklet No. _____

This booklet consists of 100 questions and 12 printed pages.

RGUPET/____/____

Series

NIL

**RGUPET 2023
Ph.D. in FOOD TECHNOLOGY**

Full Marks: 100

Time: 3 Hours

Roll No.

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Day and Date of Examination : _____
Signature of Invigilator(s) : _____
Signature of Candidate : _____

General Instructions:

PLEASE READ ALL THE INSTRUCTIONS CAREFULLY BEFORE MAKING ANY ENTRY.

1. DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO.
2. Candidate must write his/her Roll Number on the space provided.
3. This Test Booklet contains 100 Multiple Choice Questions (MCQs) from the concerned subject. Each question carries 1 mark.
4. Please check the Test Booklet to verify that the total pages and total number of questions contained in the test booklet are the same as those printed on the top of the first page. Also check whether the questions are in sequential order or not.
5. Candidates are not permitted to enter into the examination hall 15 minutes after the commencement of the entrance test or leave the examination hall before 30 minutes of end of examination.
6. Making any identification mark in the OMR Answer Sheet or writing Roll Number anywhere other than the specified places will lead to disqualification of the candidate.
7. Candidates shall maintain silence inside and outside the examination hall. If candidate(s) is/are found violating the instructions mentioned herein or announced in the examination hall, they will be summarily disqualified from the entrance test.
8. In case of any dispute, the decision of the Entrance Test Committee, RGU shall be final and binding.
9. The OMR Answer Sheet consists of two copies, the Original copy and the Student's copy.

1	Descriptive research includes				a	Surveys and fact finding
	a) Surveys and fact finding	b) Solution for a problem	c) Abstract idea	d) Quantitative measurements		
2	Which of the following is not the measure of central tendency?				C	Standard deviation
	a) Mean	b) Median	c) Standard deviation	d) Mode		
3	ANOCOVA full form is				c	Analysis of covariance
	a) Analysis of correlation	b) Analysis of coexistence	c) Analysis of covariance	d) Analysis of coefficients		
4	Median divides the data set into _____				a	2 equal parts
	a) 2 equal parts	b) 3 equal parts	c) 4 equal parts	d) 5 equal parts		
5	Concept are of Research				b	tools
	a) guide	b) tools	c) methods	d) variables		
6	Concept represents various degree of				c	Abstraction
	a) Formulation	b) Calculation	c) Abstraction	d) Specification		
7	Analogies are the sources of				d	Hypothesis
	a) Data	b) Concept	c) Research	d) Hypothesis		
8	A Hypothesis which develops while planning the research is				b	Working Hypothesis
	a) Null Hypothesis	b) Working Hypothesis	c) Relational Hypothesis	d) Descriptive Hypothesis		

9	How to judge the depth of any research?				a	By research objectives
	a) By research objectives	b) By research duration	c) By total expenditure on research	d) By research title		
10	The first step of research is:				d	Identifying a problem
	a) Finding a problem	b) Selecting a problem	c) Searching a problem	d) Identifying a problem		
11	The conclusions/findings of which type of research cannot be generalized to other situations?				a	Historical Research
	a) Historical Research	b) Casual Comparative Research	c) Descriptive Research	d) Experimental Research		
12	Summarising and displaying raw data in a compact form is known as				c	Tabulation
	a) Bar	b) charts	c) Tabulation	d) graph		
13	The meaning of “skewness” is				c	Lack of symmetry
	a)Leptokurtic	b)Bi-variate population	c) Lack of symmetry	d) Covariance		
14	The process of assigning numerals or other symbols to answer is known as				a	Coding
	a) Coding	b) Editing	c) Tabulation	d) Data cleaning		
15	The average of difference of the value of items from some average of the series				b	Mean deviation
	a)Standard deviation	b)Mean deviation	c)Median	d)Range		
16	The collection of all the items about which the information is desired is called				a	Population
	a)Population	b)Variables	c)Error	d)Correlation		
17	The chi-square test is:					

	a) A mean	b) A multi-question tests	c) A statistical mistake	d) A statistic	d	A statistic
18	Primary data can be collected from:				a	Survey
	a) Survey	b) Internet	c) New paper	d) Reports		
19	Which research studies help to determine the frequency with which something occurs?				b	diagnostic
	a) exploratory	b) diagnostic	c) descriptive	d) Analytical		
20	Student ranking from high to low is an example of which scale?				b	Ordinal Scale
	a) Nominal Scale	b) Ordinal Scale	c) Interval Scale	d) Ratio Scale		
21	Which among the following is not a measure of central tendency?				a	Range
	a) Range	b) Mean	c) Median	d) Mode		
22is a process of examining the collected raw data to detect error, omissions and rectification.				d	Editing
	a) Data adjusting	b) Questionnaire checking	c) Classification	d) Editing		
23	The survey of people who have had practical experience with problem to be studied is called				b	Experience survey
	a) Experimental survey	b) Experience survey	c) Insight survey	d) In-depth Survey		
24	The number of items to be selected from the universe to constitute a sample				c	Size of sample
	a) Population	b) Sampling units	c) Size of sample	d) Control		
25	The size of sample should be				c	Optimum
	a) Large	b) Small	c) Optimum	d) Meagre		

26	What type of chart is useful for comparing values over categories?				b	Column Chart
	a) Pie Chart	b) Column Chart	c) Line Chart	d) Dot Graph		
27	A complete list of all the sampling units is called:				b	Sampling frame
	a) Sampling design	b) Sampling frame	c) Population frame	d) Cluster		
28	Which of the following is not the method of Research?				c	Observation
	a) Survey	b) Historical	c) Observation	d) Philosophical		
29	A satisfactory statistical quantitative method should not possess one of the following qualities				a	Flexibility
	a) Flexibility	b) Measurability	c) Comparability	d) Appropriateness		
30	Which of the following methods is used in empirical researches?				d	Scientific method
	a) Inductive method	b) Deductive method	c) Initiative method	d) Scientific method		
31	Which type of analysis studies the functional relationship between two or more existing variables?				b	regression analysis
	a) correlation analysis	b) regression analysis	c) casual analysis	d) inferential analysis		
32is a measure of attributes.				c	Proportion
	a) Hypothesis	b) Groups	c) Proportion	d) Variable		
33	If one variable depends upon or is a consequences of another variable then it is called				d	Dependent variable
	a) Treatment	b) Group	c) Dependent variable	d) Independent variable		
34	Which one of the following is a method of field research?					

	a) Opinionnaire	b) Play analysis	c) Analysis of documents	d) Analysis of historical records	a	Opinionnaire
35	<i>Ex post facto</i> research is a				c	Descriptive research
	a) Analytical research	b) Applied research	c) Descriptive research	d) Conceptual research		
36	Gathering knowledge for the knowledge's sake is called				a	Fundamental Knowledge
	a) Fundamental Knowledge	b) Descriptive research	c) Empirical research	d) Quantitative research		
37 are simple to administer and relatively inexpensive to analyse				a	Structure questionnaires
	a) Structure questionnaires	b) Unstructured questionnaire	c) General form	d) Question sequence		
38	Which one is not an example of hypothesis testing?				d	Q-test
	a) Chi-square test	b) t-test	c) f-test	d) Q-test		
39	Manipulation is always a part of				b	Descriptive research
	a) Historical research	b) Descriptive research	c) Fundamental research	d) Experimental research		
40	The word "data" comes from the latin word:				b	Datum
	a) Detum	b) Datum	c) Datam	d) Detem		
41	Information in the research is:				d	Organized Data
	a) Raw Data	b) Processed Data	c) Input Data	d) Organized Data		

42	In Excel, which of the following function denotes a range from B1 through E5				b	B1:E5
	a) B1 - E5	b) B1:E5	c) B1 to E5	d) B1\$E5		
43	The principal component technique is a very popularly used for				b	Factor study
	a) Variable study	b) Factor study	c) Size study	d) Logical study		
44	Oral presentation is effective when supplemented by various				d	Visual devices
	a) Sample	b) Data	c) Visual devices	d) Report		
45	Discriminant analysis is used to predict				b	Group membership
	a) Individual	b) Group membership	c) Population	d) Control		
46	The researcher must avoid the while writing final draft				a	Technical jargon
	a) Technical jargon	b) Concise writing	c) Simple language	d) Tabulation		
47	Footnotes are always typed inspace though they are divided from one another by double space				b	Single space
	a) Double space	b) Single space	c) 1.5 space	d) 2.5 space		
48	Outline of technical report should content				a	Summary of results
	a) Summary of results	b) Questionnaire	c) Raw data	d) Case study		
49	Which is not a common citation style in scientific writing				d	PLA
	a) APA	b) MLA	c) Chicago	d) PLA		
50	As glycogen supplies are depleted, ATP regeneration stops, and the actin and myosin remain locked in a permanent contraction				a	Rigor mortis
	a) Rigor mortis	b) Thawing	c) Stunning	d) Filleting		
51	Bromelain enzymes extracted fromis used for meat tenderization					

	a) Pineapple	b) Orange	c) Guava	d) sugarcane	a	Pineapple
52	National Meat and Poultry Processing Board (NMPPB) is located in				d	New Delhi
	a) Chennai	b) Mumbai	c) Kolkata	d) New Delhi		
53	In Europe, one of the food scandals advertised spicy beef were found to contain				c	Horse meat
	a) Duck meat	b) Buffalo meat	c) Horse meat	d) Kangaroo meat		
54	Bacon is made from				b	Pork
	a) Beef	b) Pork	c) Chevon	d) Poultry		
55	The color of egg yolks due to the presence of				a	Xanthophylls
	a) Xanthophylls	b) Livetin	c) Sodium	d) Calcium		
56	One gram of carbohydrate contains				a	4 kcal
	a) 4 kcal	b) 6 kcal	c) 9 kcal	d) 8 kcal		
57	Cell Powerhouse is				b	Mitochondria
	a)Nucleus	b)Mitochondria	c)Endoplasmic Reticulum	d)Golgi body		
58	Enzyme which break down the carbohydrate in mouth				c	Salivary amylase
	a) Lactase	b) Protease	c) Salivary amylase	d) Hydrolase		
59	Cereal is deficient in				c	Lysine
	a) Phenylalanine	b) Valine	c) Lysine	d) Methionine		
60	Toads skin deficiency is due to				a	Vitamin

	a) Vitamin A	b) Vitamin C	c) Vitamin E	d) Vitamin B ₂		A
61	Spoilage in canned meat is due to the presence of				b	<i>Clostridium</i>
	a) <i>Escherichia</i>	b) <i>Clostridium</i>	c) <i>Pseudomonas</i>	d) <i>Salmonella</i>		
62	Milk pasteurization at 62.8°C for 30 min to eliminate				a	<i>Coxiella burnetti</i>
	a) <i>Coxiella burnetti</i>	b) <i>Listeria monocytogenes</i>	c) <i>Callus cereus</i>	d) <i>Salmonella Thyphimuriun</i>		
63	Black rot is seen in				b	egg
	a) Meat	b) Egg	c) Milk	d) Bread		
64	Baker's yeast				b	<i>Saccharomyces cerevisiae</i>
	a) <i>Saccharomyces bulgaricus</i>	b) <i>Saccharomyces cerevisiae</i>	c) <i>Saccharomyces carlsbergensis</i>	d) <i>Candida albicans</i>		
65	Fermented beverage "Ale " is a				c	Type of beer
	a) Type of whiskey	b) Type of wine	c) type of beer	d) type of juice		
66	Feni is a liquor originated from				c	Goa
	a) Madhya Pradesh	b) Punjab	c) Goa	d) Arunachal Pradesh		
67	Unit of specific gravity					

	a) g/cm ³	b) kg/cm ³	c) kg/m ³	d) g/m ³	c	kg/m ³
68	Atmoisture content, constant periods ends and falling rate starts				a	Critical
	a) critical	b) specific	c) EMC	d) Initial		
69	Perfect black body absorptivity is equals to					
	a) 1	b) 2	c) 3	d) 4	a	1
70	SI Unit of pressure					
	a)Poise	b) Centipoise	c) Pascal	d) Pas-sec	d	Pascal
71	When hot and cold fluid flow in opposite direction in a heat exchanger than flow is called				c	Counter-current
	a) Parallel	b) Co-current	c) Counter-current	d) Laminar		
72	Which of the following is involved in maillard reaction?				a	Reducing sugar
	a) Reducing sugar	b) Non reducing sugar	c) Reversible sugar	d) Non reversible sugar		
73	Which of the following components display anti-microbial activity in milk?				b	Lactoferrin
	a) Beta-lactoglobulin	b) Lactoferrin	c) Glycomacropeptide	d) MFG protein		
74	Acetaldehyde is the major flavouring compound in				b	Yoghurt
	a) Dahi	b) Yoghurt	c) Cheese	d) Koumiss		
75	National Institute of Nutrition is located in				a	Hyderabad
	a) Hyderabad	b) Bombay	c) New Delhi	d) Kanpur		

76	Triple point temperature of water is				b	0.01 °C
	a) 0.1 °C	b) 0.01 °C	c) 0 °C	d) 1 °C		
77	Minimum % total soluble solids in orange nectar is				c	15%
	a) 25%	b) 30%	c) 15%	d) 40%		
78	CSIR institute dedicated to research on all aspects of food is located at				a	Mysore
	a) Mysore	b) Hyderabad	c) Nagpur	d) Calcutta		
79	Optimum pH value for jelly is				b	3.2
	a) 3.0	b) 3.2	c) 3.4	d) 3.6		
80	Glycerol monostearate is commonly used as a				c	Emulsifier
	a) Stabiliser	b) Preservative	c) Emulsifier	d) Anti-oxidant		
81	Radappertization means				a	Radiation sterilization
	a) Radiation sterilization	b) Radiation pasteurization	c) Radiation ionization	d) Radiation decontamination		
82	Fishes are not preserved by				d	Vacuum packaging
	a) Drying	b) Salting	c) Canning	d) Vacuum packaging		
83	Which of the following enzymes are used in coffee bean fermentation				d	Pectinases
	a) Hydrolases	b) Proteases	c) Takadiastase	d) Pectinases		
84	Which of the following has maximum biological value				a	Egg
	a) Egg	b) Milk	c) Meat	d) Red gram		
85	Baking powder is a compound of					

	a) Sodium bicarbonates and tartrates	b) Sodium bicarbonate and corn starch	c) Corn starch and tartrates	d) Sodium citrate and tartrates	a	Sodium bicarbonates and tartrates
86	Saponins are found in				a	Soyabean
	a) Soyabean	b) Faba bean	c) Kidney bean	d) Broad bean		
87	High pectin content in jam causes				b	Premature setting
	a) Crystallization	b) Premature setting	c) Gummy jam	d) Surface graining		
88	Shaffer-Somogyi micro method is used for estimation of				a	Sugar
	a) Sugar	b) Citric acid	c) Total soluble solid	d) Ascorbic acid		
89	Maximum % of oil is found in				d	Coconut
	a) Ground nut	b) Mustard	c) Linseed	d) Coconut		
90	After homogenization the size of fat globules should be				a	<2 micron
	a) < 2 micron	b) 4 micron	c) >2-4 micron	d) 0.4 micron		
91	FDA is termed as				b	Food and Drug Administration
	a) Fruit and Drug Administration	b) Food and Drug Administration	c) Fruit and Dietary Allowance	d) Foundation of Drug Administration		
92	Bakery products are commonly packed in				a	LDPE pouches
	a) LDPE pouches	b) HDPE pouches	c) Cellophane pouches	d) Aluminum foil laminates		

93	Hygrometer is used to measure _____ in air				a	Moisture
	a) Moisture	b) Nitrogen	c) Hydrogen	d) Oxygen		
94	Actin is present in				b	Meat
	a) Wheat	b) Meat	c) Milk	d) Rice		
95	Anthocyanins are _____ soluble				a	Water
	a) Water	b) Fat	c) Organic solvent	d) Alcohol		
96	Aseptic packaging is used in				a	Food sterilization
	a) Food Pasteurization	b) Food intoxication	c) Food sanitization	d) Food sterilization		
97	Natural enzymes present in fruit that hydrolyze pectin is				a	Pectin methyl esterase
	a) Pectin methyl esterase	b) Pectin ethyl esterase	c) Pectin methyl peroxidase	d) Pectin ethyl peroxidase		
98	The process of heat treatment to inactivate the natural browning enzyme of vegetables or fruits is called				c	Blanching
	a) Scalding	b) Pasteurization	c) Blanching	d) Suberization		
99	The principle protein of rice is				b	Oryzenin
	a) Glutenin	b) Oryzenin	c) Zein	d) Gliadin		
100	Richest source of Vitamin C is				b	Barbados Cherry
	a) Gauva	b) Barbados Cherry	c) Lichi	d) Pine Apple		

SPACE FOR ROUGH WORK