

FISH PRODUCT AND VALUE ADDITION
[FSPT 3206 (2+1)]

Sl no.	MCQ	Instructions (Choose the correct answer)		
1.		_____ is called masmin		
	a)	Dried swim bladder		
	b)	Dry fish		
	c)	Dried bonito sticks		
2.	D)	Smoke cured tuna	Yes	
		In _____ method, pieces of <i>Garcinia gambogea</i> is mixed along with fish and salt during curing		
	a)	Dry curing		
	b)	Wet curing		
3.	c)	Colombo curing	Yes	
	D)	Salt curing		
		Smoking done at temperatures below ____°C is cold smoking		
	a)	35-40°C	Yes	
4.	b)	50°C		
	c)	60-80°C		
	D)	70°C		
		_____ compounds , present in smoke are responsible for the bactericidal property of the smoke		
5.	a)	PAH		
	b)	Phenolic	Yes	
	c)	Organic		
	D)	Inorganic		
6.		Chitosan is nothing but		
	a)	Teichoic acid		
	b)	Peptidoglycan		
	c)	N-acetyl glucosamine	Yes	
7.	D)	Lipopolysaccharide		
		The bacteria used for biological fermentation of silage is		
	a)	<i>Shigella</i>		
	b)	<i>Lactobacillus</i>	Yes	
7.	c)	<i>Listeria</i>		
	D)	<i>Escherichia</i>		
		If relative humidity of the air is higher means		
7.	a)	Drying rate also high		
	b)	Drying rate will decrease	Yes	
	c)	Constant (no change)		

	D)	None		
8.		The fish scales contains		
	a)	Guanine	Yes	
	b)	Calcium		
	c)	Glucose		
	D)	All		
9.		Commonly used flavour enhancer in sea food		
	a)	Sodium tri polyphosphate		
	b)	Sodium polyphosphate		
	c)	MSG (mono sodium glutamate)	Yes	
	D)	None		
10.		Dehydration of fish is called		
	a)	Artificial drying	Yes	
	b)	Natural drying		
	c)	Both a & b		
	D)	None of these		
11.		Kamaboko prepared by		
	a)	Steamed		
	b)	Boiled	Yes	
	c)	Fried		
	D)	None		
12.		During drying, along with moisture content which parameter is reduced thus preventing growth of microorganisms		
	a)	Protein content		
	b)	Fat content		
	c)	Salt content		
	D)	Water activity	Yes	
13.		Preservation of foods using ionizing radiation is called as		
	a)	Radicidation		
	b)	Radappertisation		
	c)	Radurisation		
	D)	Irradiation	Yes	
14.		Which one is associated with the quality assurance or seafood product		
	a)	MPEDA		
	b)	HACCP	Yes	
	c)	IFS		
	D)	SART		
15.		Common mold spoilage in smoked fish is caused by		
	a)	<i>Sarcinia</i> sp		
	b)	<i>Halobacterium</i>		
	c)	<i>Sporendonema epizoum</i>	Yes	
	D)	None		
16.		Dun spoilage in dry salted fish is due to.....		

	a)	<i>Walleimia sebi</i>	Yes	
	b)	<i>Pseudomonas</i>		
	c)	Carbon dioxide emitting		
	D)	All of the above		
17.		The objectible phenomenon in kamaboko processing is		
	a)	Suwari	Yes	
	b)	Modori		
	c)	Surimi		
	D)	None of the above		
18.		The important physical property of extruded product is		
	a)	Extension		
	b)	Expansion	Yes	
	c)	Cooking		
	D)	Coating		
19.		Natural preservative		
	a)	Vit-E		
	b)	Vit-D		
	c)	Both of the above	Yes	
	D)	None of the above		
20.		Higher self-life among following marinades		
	a)	Cold marinades		
	b)	Cooked marinades		
	c)	Fried marinades	Yes	
	D)	None of the above		
21.		Development of putrefactive microorganism in marinades is greatly delayed by		
	a)	Acetic acid		
	b)	Salt		
	c)	Sugar		
	D)	All the above	Yes	
22.		Before fish portion is battered it undergoes the following step		
	a)	Breading		
	b)	Predusting	Yes	
	c)	Salting		
	D)	Frying		
23.		The formation of dry impervious layer on the surface of fish preventing the diffusion of water is called		
	a)	Shrinkage		
	b)	Case hardening	Yes	
	c)	Rehydration		
	D)	Maillard reaction		
24.		In kamaboko processing of surimi, the gels are cooked at-		

	a)	40°C for 30 min		
	b)	90°C for 30 min		
	c)	Both	Yes	
	D)	100°C for 30 min		
25.		The spoilage identified by malodromus slime on the surface of the salted fish is called		
	a)	Rust		
	b)	Saponification	Yes	
	c)	Putrefaction		
	D)	Infestation		
26.		In surimi manufacturing from fatty fish, the chemical added in washing solution for removing fat is		
	a)	NaCl		
	b)	NaHCO ₃	Yes	
	c)	CaCl		
	D)	KCl		
27.		The surimi product which is hollow in shape and is white inside and brown outside is		
	a)	Kamaboko		
	b)	Hampen		
	c)	Chikuwa	Yes	
	D)	Fish ham		
28.		Case hardening' can be controlled by		
	a)	Temperature control during drying		
	b)	Maintain sufficiently high RH		
	c)	a & b	Yes	
	D)	Maintain low RH during drying		
29.		Form of drying where the product passed on a perforated conveyor bed where air is passed below. So, product is partially lifted & dried.		
	a)	Fluidized bed dryer	Yes	
	b)	Vacuum dryer		
	c)	Rotary dryer		
	D)	Spray dryer		
30.	food processing is the conversion of carbohydrates to alcohols and carbon dioxide or organic acids using yeasts, bacteria, or a combination thereof, under anaerobic conditions		
	a)	Smoking		
	b)	Fermentation	Yes	
	c)	Drying		
	D)	Salting		
31.	the phenolic compound most responsible for the "smokey" taste		
	a)	Guaiacol	Yes	
	b)	Syringol		

	c)	Both		
	D)	None of the above		
32.		Machanically deboned fish meat minced, water washed, refined, mixed with cryoprotectants for prolonged shelf life during frozen storage.....		
	a)	Fish keema		
	b)	Nobashi		
	c)	Surimi	Yes	
	D)	Trepang		
33.		Colombo curing in Sri Lanka is called		
	a)	Kadi		
	b)	Jadi		
	c)	Marination		
	D)	Fermentation		
34.		Factors affecting the falling rate period is		
	a)	Fat content of the fish	Yes	
	b)	Shape of the fish		
	c)	Temperature		
	D)	Air velocity		
35.		Stretched the length of peeled and deveined shrimp and minimizing its curling by applying pressure using simple mechanical device		
	a)	Chikua		
	b)	Nobashi		
	c)	Ngari		
	D)	Budu		
36.		Seafood analogs are prepared from		
	a)	Dried fish		
	b)	Smoked fish		
	c)	Canned fish		
	D)	Surimi	Yes	
37.		Salt derived from the evaporation of seawater and salt takes are called _____		
	a)	Solar salt	Yes	
	b)	Brine evaporated salt		
	c)	Seawater salt		
	D)	Rock salt		
38.	is called masmin		
	a)	Dried swim bladder		
	b)	Smoke cured tuna	Yes	
	c)	Dry fish		
	D)	Dried bonito sticks		
39.		Fish & fish pieces treated with edible oils & salt. Subjected to heat treatment at 85°C and packed in jelly or called jelly products.		

	a)	Cooked marinades	Yes	
	b)	Cold marinades		
	c)	Fried marinades		
	D)	none		
40.		Pellicle formation is specific to _____ process		
	a)	Cold smoking		
	b)	Hot smoking	Yes	
	c)	Drying		
	D)	Marinading		
41.		Sublimation is the principles of		
	a)	Solar dryer		
	b)	Spray dryer		
	c)	Freeze dryer	Yes	
	D)	All		
42.		If relative humidity of the air lower means		
	a)	Drying rate will increase	Yes	
	b)	Drying rate will decreases		
	c)	Constant (no change)		
	D)	None		
43.		Gel strength test is related to quality test of		
	a)	Fish paste		
	b)	Surimi	Yes	
	c)	Fish mince		
	D)	None		
44.		Cavier prepared from		
	a)	Roe	Yes	
	b)	Meat		
	c)	Shell		
	D)	All		
45.		Sun drying heavily depends on the		
	a)	Fish varieties		
	b)	Wind		
	c)	Weather condition	Yes	
	D)	None		
46.		Steamed (surimi based) product is		
	a)	Chikuwa		
	b)	Kamaboko	Yes	
	c)	Hampen		
	D)	None of these		
47.		If moisture content in smoked fish is >50% which is favourable of		
	a)	Mold growth	Yes	
	b)	Bacteria		
	c)	Parasite		
	D)	Virus		
48.		Which one is belong to halobacterium		

	a)	<i>Pseudomonas</i>		
	b)	<i>Sarcina</i>	Yes	
	c)	<i>Acetobacter</i>		
	D)	<i>Moroxella</i>		
49.		The microorganism tolerant to high concentration of common salt and reduced water activity is		
	a)	<i>Pseudomonas</i>		
	b)	Coagulase positive <i>S. aureus</i>	Yes	
	c)	<i>Streptococcus</i>		
	D)	<i>Staphylococcus</i>		
50.		Smoke contains carcinogenic compound called		
	a)	3,4-Benzopyrene	Yes	
	b)	1, 3 dimethy pyrogallol		
	c)	4 methy catechol		
	D)	Pyrogallol 1-0 methy ether		
51.		Identify the physical hurdle from the following		
	a)	Water activity		
	b)	Low pH		
	c)	Low temperature	Yes	
	D)	None of the above		
52.		In gelation mechanism the important bonds involved to form elastic gel is		
	a)	Hydrophobic interaction	Yes	
	b)	Hydrogen bonds		
	c)	Both		
	D)	None of the above		
53.		The salt is rubbed on the surface of the fish and stacked in layers of salt and fish		
	a)	Dry salting		
	b)	Kench salting	Yes	
	c)	Wet salting		
	D)	None of the above		
54.		Battered and breaded products are called as		
	a)	Enrobed	Yes	
	b)	Coated		
	c)	Both		
	D)	None of the above		
55.		Surimi is devoid of...		
	a)	Water soluble protein	Yes	
	b)	Stroma protein		
	c)	Myofibrillar protein		
	D)	None of the above		
56.		The type of curing, without splitting the fish open, where the intestine and entrails are		

		removed by pulling out the gill region		
	a)	Columbo curing		
	b)	Pit curing		
	c)	Pickle curing		
	D)	Mona curing	Yes	
57.		Fish sauces in Korea are called		
	a)	Shottsuru		
	b)	Nuoc-man		
	c)	Jeotkal	Yes	
	D)	None of the above		
58.		The kind of driers generally used for drying foods which are in the form of liquids or suspension is		
	a)	Kiln drier		
	b)	Spray drier	Yes	
	c)	Tunnel drier		
	D)	Solar tent driers		
59.		The bacteria causing red and pink colour in salted fish		
	a)	Halophobic		
	b)	Salt tolerant		
	c)	Halophilic	Yes	
	D)	Salt sensitive		
60.		Shidal is a salt-free fermented fish product indigenous to the Northeast sector of India is prepared from		
	a)	<i>Setipinna phasas</i>		
	b)	<i>Puntius sp.</i>		
	c)	Both	Yes	
	D)	None of the above		
61.		The water holding capacity of surimi is enhanced by the addition of		
	a)	Polyphosphate	Yes	
	b)	Starch		
	c)	Sodium chloride		
	D)	Sucrose		
62.		The function of NaCl is		
	a)	Reduce moisture		
	b)	Plasmolysis of bacteria cell		
	c)	Preservative action		
	D)	All the above	Yes	
63.		Marinated product made by marinating fish or shellfish with juice of lime orange and tartaric acid		
	a)	Escabeche		
	b)	Paksiw		
	c)	Ceviche	Yes	

	D)	All the above		
64.		The breading material which resembles an elongated spindle (i.e. like shredded cheese)		
	a)	Home-style		
	b)	Japanese-style	Yes	
	c)	Cracker-type		
	D)	Flour		
65.		Value addition of fish and fish products ensure		
	a)	Reduce post-harvest loss		
	b)	Utilization of low cost fish		
	c)	Utilization of by-catch		
	D)	All the above	Yes	
66.		The fish paste is mixed with another meat is called		
	a)	Kamaboko		
	b)	Hampen		
	c)	Fish ham	Yes	
	D)	Chikuwa		
67.		At water activity 0.95, the type of microorganism inhibited is		
	a)	Yeast		
	b)	Gram negative rods	Yes	
	c)	Xerophilic		
	D)	Osmophilic		
68.		Poly- β (1,4) – N-acetyl-D-Glucosamine		
	a)	Chitosan		
	b)	Chitin	Yes	
	c)	Squaline		
	D)	None		
69.		Pla-ra is a		
	a)	Lactic acid fermented product	Yes	
	b)	Acetic acid fermented product		
	c)	Marinated product		
	D)	Cured product		
70.		Which is the traditional fermented product of India		
	a)	Ngari		
	b)	Tungtap		
	c)	Shidal		
	D)	All	Yes	

S. No.	TXT	Instruction (Fill in the blanks)		
1.		A drier where product placed on a perforated bed and product is partially lifted & dried is Fluidized		

		bed dryer		
2.		Bitter taste in fish while salting is due to Magnesium		
3.		Carcinogenic compound in smoke is 3,4 - Benzopyrene		
4.		A method combining more than one approach which secures the microbial safety and stability as well as the organoleptic and nutritional quality and the economic viability of food products is hurdle technology		
5.		The first principle of HACCP is Hazard analysis		
6.		The process of soaking foods in a seasoned, often acidic, liquid before cooking is marination		
7.		A process which combines several unit of operations including mixing, cooking, kneading, shearing, shaping and forming is extrusion		
8.		Ground fish meat blended with ingredients, stuffed into suitable casing material & heat processed is sausage		
9.		The water holding capacity of surimi is enhanced by the addition of polyphosphate		
10.		Name a lactic acid fermented product of Thailand Pla-ra		
11.		A graph showing the relationship between water activity a_w and moisture content at a constant temperature Sorption isotherm.		
12.		Spoilage in salted fish caused by halophilic mould is known as Dun spoilage		
13.		When smoking of fish is done below 40 ⁰ C is called Cold smoking		
14.		The compounds , present in smoke responsible for the bactericidal property of the smoke is Phenolic		
15.		In Colombo curing, fish is mixed with salt and		

		<i>Garcinia gambogea</i>		
16.		the type of food processing where carbohydrates is converted to alcohols and carbon dioxide or organic acids using yeasts, bacteria, or a combination thereof, under anaerobic conditions is fermentation		
17.		Increasing the length of peeled and deveined shrimp and minimizing its curling by applying pressure using simple mechanical device is called Nobashi		
18.		The formation of dry impervious layer on the surface of fish preventing the diffusion of water is called case hardening		
19.		The board term use for fish drying, salting, smoking or in combination is known as curing		
20.		Removal of water from fish using mechanical dryer is called dehydration		

S. No.	Match	Left side	Right side	
	1.	Nuoc mam	Vietnam	
	2.	Patis	Thailand	
	3.	Budu	Phillipines	
	4.	Nampla	Malaysia	
	5.	Ngapi	Myanmar	
	6.	Ceviche	Tartaric acid	
	7.	Esca beche	Vinegar	
	8.	Pink discoloration	<i>Halobacterium salinaria</i>	
	9.	Dun spoilage	<i>Sporendonema epizoum</i>	
	10.	Paksiw	Coconut	