

## **Food Safety**

Time Allowed: Three Hours

Maximum Marks: 300

## INSTRUCTIONS

## DO NOT OPEN THIS QUESTION BOOKLET SEAL UNTIL YOU ARE TOLD TO DO SO

- 1. The OMR Sheet is separately supplied to you. Fill in all the entries in the OMR Sheet correctly, failing which your OMR Sheet shall not be evaluated.
- 2. This Question Booklet contains **200** questions. Each question comprises four responses (answers). You have to select ONLY ONE response which you consider the best and mark it on the OMR Sheet.
- 3. You must check the Question Booklet and ensure that it contains all the questions and see that no page is missing or repeated. Discrepancies, if any in the Question Booklet or in the OMR Sheet, you must be reported to the invigilator immediately and Question Booklet/OMR Sheet shall be replaced.
- 4. Encode clearly the Question Booklet Series A, B, C or D as the case may be in the appropriate place in the OMR Sheet.
- 5. All questions carry equal marks. Attempt ALL questions. Your total marks will depend only on the number of correct responses marked by you in the OMR Sheet.
- 6. Rough work must not be done on the OMR Sheet. Use the blank space at the last page of the Question Booklet for rough work.
- 7. Once you have completed filling in all your responses on the OMR Sheet and the examination has concluded, you should hand over the OMR Sheet to the Invigilator. In no case you should leave the Examination Hall without returning the OMR Sheet. Candidates are allowed to take away their Question Booklets. The duplicate OMR Sheet may also be taken away by the candidates.
- 8. There is no penalty for wrong answers.

1.	Mold inhibitor used in bread is:  a. Sodium/Calcium propionate		7.	After drying moisture content in vegetables should be:  a. 6-8% b. 8-10%	
	<ul><li>b. Sodium chlorid</li><li>c. Calcium carbon</li></ul>			c. 10-15% d. 15-20%	
	d. None of these	ate	8.	Agar-agar is used as:	
2.	Who developed canning:	the process of		<ul><li>a. Stabilizer and thickener</li><li>b. Antibiotic</li></ul>	
	<ul><li>a. Nicolas Appert</li><li>b. Louis Pasteur</li><li>c. Norman Borlaug</li><li>d. Walter Hesse</li></ul>			c. Colouring agent	
				d. Nutrient supplement	
3.	Nisin is used as:	gent	9.	Frozen storage is generally operated at temperature of:	
	<ul><li>a. Antimicrobial agent</li><li>b. Emulsifier</li><li>c. Stabilizer</li></ul>			a0°C b18°C	
				c50°C d60°C	
	d. Sweetner		10.	Tocopherol is an example of:	
4.	Iodized salt conta form of:	ains iodine in the		<ul><li>a. Anticaking agent</li><li>b. Antioxidant</li><li>c. Flavouring agent</li><li>d. None of these</li></ul>	
	a. I <sub>2</sub>	b. KIO <sub>3</sub>	11.	Bitterness in colocasia is due to:	
	c. KI	d. NaI		a. Calcium oxalate	
5.	The first synthetic	sweetening agent		b. Calcium chloride	
	used was:			c. Potassium oxalate	
	a. Saccharine	b. Cyclamates		d. Calcium carbonate	
	c. Aspartame	d. Sucralose	12.	In high temperature short time method	
6.	preserved by a	preserves can be adding sugar at		of pasteurization, milk is heated at temperature:	
	concentration of:			a. 72°C for 15 seconds	
	a. 65%	b. 70%		b. 62°C for 15 seconds	
	c. 40%	d. 30%		c. 72°C for 30 minutes	
				d. 62°C for 30 minutes	
			2	(Contd.)	

	3. Butylated Hydroxyanisole (BHA) is:		20.	Which is the precursor of Ethylene?	
	a. Chelating agent	b. Antioxidant		a. Tryptophane	b. Methionine
	c. Stablizer	d. Emulsion		c. ABA	d. IAA
14.	Strong BIS Headqua. Pune c. New Delhi	uarters is situated in: b. Chennai d. Ajmer	21.	Cauliflower curds month at:  a. O°C with 85-9  b. 15°C with 60-8	
15.	Germination affect legumes by:	ts nutritive value of		c. 15 °C with 60-	
	a. Increase in vita	amin C content		d. 20 °C with 50-	70% RH
	b. Decrease in activity	trypsin inhibitor	22.	For curing, sweet 10 days at:	potato are kept for
	<ul><li>c. Increase in enzyme activity</li><li>d. All of these</li></ul>			a. 25 °C and 85% RH	
				b. 40°C and 70% RH	
16.	Pineapple variety suitable for canning is:			c. 80°C and 30% RH	
				d. 30 °C and 80%	RH
	<ul><li>a. Queen</li><li>c. Mauritius</li></ul>	b. Kew d. Cayenne	23.	Tomato fruits harvested at:	for canning are
17.	Richest source of	Riboflavin is:		a. Mature green s	stage
	a. Papaya	b. Mango		b. Red ripe stage	
	c. Bael	d. Karonda		c. Immature green	n stage
18.	Which of the f	following is non-		d. Half-ripe/pink	stage
	Climacteric type of a. Pineapple	of fruit? b. Litchi	24.	sprouting of onio	_
	c. Grape	d. All of these		a. Maleic Hydraz	, ,
19.		Ethylene during		b. Ethylene (C2H	4)
	disorder called:	ut flowers causes a		<ul><li>c. GA</li><li>d. All of these</li></ul>	
	a. Bud opening	b. Sleepiness		u. An of these	
	a. But optimis	*			

25.	For Low Sugar content, potato tubers are stored at:		32.	Yellow coloured vegetables are rich source of:	
	a. 5°C	b. 10 °C		a. Vitamin A	b. Vitamin B
	c. 15°C	d. 20°C		c. Vitamin C	d. Vitamin D
26.	the temperature should be:		33.	Toddy from cocon a. Deep Frying	ut is prepared by : b. Fermentation
	a. 5°C	b. 10°C		c. Hydrogenation	d. Oxidation
27.	c. 20°C  The Limiting Am vegetables is:	d. 25°C ino acid in green	34.	-	the maximum limit in squashes and
	a. Arginine	b. Lysine		a. 350 ppm	b. 500 ppm
	c. Methionine	d. Tryptophan		c. 1000 ppm	d. 600 ppm
28.	Which is the sta Indian diet?	aple vegetable in	35.	The toxicity of SO <sub>2</sub> increases at:	
	a. Tomato	b. Cauliflower		a. Low temperatur	
	c. Potato	d. Chilli		<ul><li>b. High temperatu</li><li>c. Moderate temperatu</li></ul>	
29.	Which bean is use gum?	d for extraction of		d. No effect of ter	
	a. Broad bean	b. Cluster bean	36.	Concentration of Si juice is:	SO <sub>2</sub> in concentrated
	c. French bean	d. Hyacinth bean		a. 500 ppm	b. 1000 ppm
30.	Chillies are rich so			c. 1500 ppm	d. 350 ppm
	a. Vitamin A	b. Vitamin C	37.	Enzyme responsib	ole for converting
	c. Vitamin A and C d. Vitamin E			pectin into pectic acid is:	
31.	Vegetables are su	bjected to drying		a. Pectinase	
	after:	h Culultitation		b. Proto-peclinase	
	a. Sulfuring	b. Sulphitation		c. Pectic Methyl I	Esterase (PME)
	c. Blanching	d. None of these		d. Poly Galucturo	nase

38.	The term 'Climacteric' was first used by:		45.	Bacteria which is used to absorb ethylene from storage chamber is:		
	a. Gane (1934)			a. Agrobacterium		
	b. Kidd and West	b. Kidd and West (1927)		b. Mycobacterium		
	c. Cruess (1912)			c. Bacillus		
	d. Bleekar (1929)	d. Bleekar (1929)		d. Azotobacter		
39.	O <sub>2</sub> requirement fo Controlled Atmosp a. 2%	r Apple storage in ohere (CA) is: b. 3%	46.	due to: a. K	on canned bean is b. Ca	
	c. 5%	d. 7%		c. S	d. None of these	
40.		re for Asparagus is:	47.	Agricultural Produce (Grading and Marketing) Act (1937) is also:		
	a. 0-5°C	b. 5 - 7°C		a. PFA Act	b. FPO Act	
	c. 7-11°C	d. 10-15°C		c. Agmark Act	d. ISl Act	
41.	Vegetable which is not blanched before drying:		48.	The term "three quarterful or full three quarter" is used to denote fruit		
	a. Cauliflower	b. Palak		maturity in:		
	c. Onion	d. Tomato		a. Banana	b. Mango	
42.	Moisture content in	n dried vegetable is:		c. Tomato	d. Pineapple	
	a. 2%	b. 3%	49.	During controlled atmospheric storage composition of which of the following set of gases is controlled:		
	c. 5%	d. 6%				
43.	Vitamin which is and Vegetables:	not found in Fruits		a. $O_2 + N_2$	b. $CO_2 + N_2$	
	a. Vitamin A	b. Vitamin B <sub>1</sub>		c. $C_2H_4 + N_2$	d. CO <sub>2</sub> +O <sub>2</sub>	
	c. Vitamin B <sub>6</sub>	d. Vitamin B <sub>12</sub>		divided into acidic	and vegetables are and non-acidic for	
44.	Best maturity inde	ex of orange is:		thermal processing		
	a. TSS	b. Sugar%		a. 4.5	b. 5.5	
	c. Acid%	d. Brix: acid ratio		c. 6.5	d. 7.5	

5

51.	In pre-cooling, removed by:	water is mostly	57.	As fruits mature, will:	the specific gravity
	a. Convection	b. Conduction		a. Increase	
	c. Radiation	d. None of these		b. Decrease	
52.	Albinism is an imp disorder of:	ortant physiological		<ul><li>c. Remains constant</li><li>d. None of these</li></ul>	ant
	a. Plum	b. Peach	58.	'Solidity' is the ma	turity index for:
	c. Strawberry	d. Cherry		a. Root vegetables	5
	•	•		b. Seed vegetables	
53.	Calliper grade measurement for:	is the maturity		c. Leafy vegetable	es
	a. Apple	b. Mango		d. Cucurbits	
	c. Banana	d. Pineapple	50	Which of the follo	wing plant hormone
		**	37.	is considered as a	~ ^
54.	<ul><li>4. Formation of abscission layer is maturity index of:</li><li>a. Tomato</li><li>b. Leafy vegetables</li><li>c. Melons</li></ul>			a. Cytokinin	b. GA <sub>3</sub>
				c. Ethylene	d. IAA
			60	Maximum density	y of water is at a
			00.	temperature of:	y of water is at a
	d. Onion			a. 0°C	b. 4°C
				c. 4°C	d7°C
55.	Avocado?	That is the maturity index for vocado?		Guava fruit is botanically known as:	
	a. Sugar content	b. Acid content	61.	a. Drupe	b. Sorosis
	c. TSS	d. Oil content		c. Berry	d. Pome
56	Which of the	fallowing is		·	
30.	Which of the following is biodegredable plastic?		62.	In onion pink col	
	a. Poly propylene			a. Anthocyanin	b. Carotene
	b. LDPE			c. Xanthophyll	d. Quercitin
	c. Polythene				
	d. Polyhydroxy bi	utvrate			
	a, i orgingatory of	,			
			6		(Contd.)

63	Secondary metabolites:  a. are essential to microbe function  b. are by-products of metabolism that are not important to microbe function  c. are products that require additional processing before they can be	68.	Fungus which mostly grown on grapes:  a. Geotrichum  b. Penicillium  c. Botrytis  d. Colletotrichum
	packaged	69.	Vitamin D is chemically known as:
	d. are harvested during the exponential phase of growth		<ul><li>a. Retinol</li><li>b. Cobalamin</li><li>c. Calciferol</li><li>d. Tocopherol</li></ul>
64.	Hen and Chicken disorder is associated with:	70.	Lye peeling is done at a temperature of: a. 75°C b. 84°C
	a. Mango b. Tomato		c. 93°C d. 105°C
	c. Grapes d. Guava	71.	Which of the following is associated with 'browning' disorder?
65.	The membrane lipid hypothesis was given by:		a. Apple b. Cabbage
	a. Kidd & West		c. Cauliflower d. Citrus
	<ul><li>b. James Harrison</li><li>c. Raison &amp; Lyons</li></ul>		What is the threshold level of ethylene in fruit and vegetable?
	d. Graham & Patterson		a. $0.01\mu L/L$ b. $0.02\mu L/L$ c. $0.03\mu L/L$ d. $0.04\mu L/L$
66.	The point at which the dried products just become lumpy is known as?  a. Danger Point		Which of the following is a rapid precooling method?
	b. Saturated Point		a. Forced air Cooling
	c. Critical Point		b. Hydro Cooling
	d. Safety Point		c. Vacuum Cooling
			d. Evaporative Cooling
67.	What is the percentage of sugars in Honey?  a. 42%  b. 82%	74.	In cucumber, chilling- injury symptoms occur at:
	$\alpha$ , $\forall \angle /0$ $0$ , $0 \angle /0$		.500

c. 65%

d. 62%

a. <7°C

c. 10°C

7

b. 7°C

d. >10°C

75.	Degreening is not applicable in:		b. Campylobacter jejuni	
	a. Banana b. Guava		c. Bacillus cereus	
	c. Mango d. Citrus		d. Trichinella spiralis	
76.	Under normal conditions Orchid can be stored upto 2 weeks at:	81.	methods can be used to distinguish	
	2-4°C b. 5-7°C		flavour compounds?	
	c. 7.5-10°C d. >10°C		a. Hydrometry	
77.	What is the operating principle behind		b. Near infrared spectroscopy	
	oven drying for determining moisture		c. Polarimetry	
	content of foods?		d. Gas chromatography	
	a. Colour change is measured	82.	Which of the following	
	b. Loss of weight represents loss of water		microorganisms cannot tolerate oxygen?	
	c. Change in refractive index is		a. Clostridium botulinum	
	measured		b. Staphylococcus aureus	
	d. Change in light absorbance is measured		c. Penicillium roquefortii	
	measured		d. E. coli	
78.	Which of the following packages is an example of aseptic packaging?		Which of the following methods is a quick test for sugar content during the	
	a. Tetra Pak drinking boxes		early stages of the brewing process for	
	b. Paper bag		beer?	
	c. Milk carton		a. Hydrometry b. Babcock test	
	d. Plastic bread bag		c. Wet ashing d. Soxhlet extraction	
79.	Which of the following ingredients in chocolate milk comes from seaweed?	84.	Which of the following processing methods involves heating foods at high	
	a. Carrageenan b. Cocoa		temperatures for short periods of time in order to reduce the risk of food	
	c. Sucrose d. Glucose		poisoning?	
80.	Which microorganism is commonly		a. Blanching b. Ohmic heating	
	associated with fecal contamination?		c. Irradiation d. Pasteurization	
	a. Clostridium botulinum			

85.	Which of the following does not have antimicrobial activity?	91.	Grinding and mixing of foods such as sausage and hamburger:
	<ul><li>a. Chlorophyll</li><li>b. Organic acids</li><li>c. Spice extracts</li><li>d. Hydrogen peroxide</li></ul>		<ul><li>a. Increase the food surface area</li><li>b. Alter cellular structure</li><li>c. Distribute contaminating microorganisms throughout the</li></ul>
<ul><li>86.</li><li>87.</li></ul>	What is the percent of acetic acid in commercially available vinegar?  a. 2% b. 4%  c. 6% d. 10%  Which of the following is not an intrinsic factor in food spoilage?  a. pH b. Moisture  c. Temperature d. Available nutrients	92. 93.	food  d. All of the above  Louis Pasteur established the modern era of food microbiology in 1857 when he showed that microorganisms causespoilage:  a. Beer b. Wine  c. Juice d. Milk  Despite efforts to eliminate spoilage
88.	Lyophilization is synonymous with:  a. Freeze-drying b. Pasteurization c. Filtration d. Spoilage		organisms during canning, sometimes canned foods are spoiled. This may be due to:  a. Spoilage before canning  b. Underprocessing during canning  c. Leakage of contaminated water through can seams during cooling
89.	Antibiotics tend to be:  a. Primary metabolites  b. Secondary metabolites  c. Tertiary metabolites  d. Quaternary metabolites	94.	d. All of the above.  The effectiveness of many chemical preservatives depends primarily on the food:
90.	Amino acids are used as food additives for which of the following reasons?  a. As natural antibiotics  b. As natural growth inhibitors  c. For nutritive purposes  d. As antioxidants	95.	<ul> <li>a. Temperature b. pH.</li> <li>c. Water content d. Acidity.</li> <li>Which type of fermentation is used to produce yogurt?</li> <li>a. Mesophilic b. Thermophilic</li> <li>c. Therapeutic d. Yeast-lactic fermentations</li> </ul>
		9	(Contd.)

96.	Which of the following refers to the addition of microorganisms to the diet in order to provide health benefits beyond basic nutritive value?			Authority of In	and Standards dia Security Authority
	a. Antibiotics	b. Prebiotics			1 Cton donda A comor
	c. Probiotics	d. All the above		of India	l Standards Agency
97.	Moisture content moisture food (IM		103.	Which one of the food preservative?	-
	a. 10-20%	b. 20-25%		a. Acetic acid	b. Propionic acid
	c. 20-40%	d. 15-50%		c. Butyric acid	d. Sorbic acid
98.	Deep frying of pogeneration of carc	_	104.	Which out of the reducing sugar?	following is a non
	a. Acrylamide	b. Acefamide		a. Fructose	b. Glucose
	c. Formamide	d. Antioxidants		c. Mannose	d. Sucrose
99.	Which of the amino acid is not essential in diet:		105.	In cooking oils, the antioxidant added to prevent rancidity is:	
	a. Tyrosine	b. Tryptophan		a. Tocopherol	b. Ascorbic acid
	c. Phenyl alanine	d. Lysine		c. BHT	d. TBHQ
100.	Material suitable for micro-wave heating:		106.	Most common toxicogenic spoilage in stored groundnuts is:	
	a. EPP	b. LDPE		a. Aspergillus flav	us
	c. PET	d. DAIP		b. Aspergillus nige	er
101.	Baking powder co	ntains:		c. Aspergillus oryz	zae
	a. NaCl	b. NaHCO <sub>3</sub>		d. Aspergillus albu	4S
	c. Na -benzoate	d. NaI	107.	Sauerkraut is the fer	rmented product of:
102	FSSAI stands for:			a. Cabbage	b. Turnip
102.	a. Food Safety Authority of In			c. Raddish	d. Beetroot

<ul><li>108. Argemone oil is used to adultrate:</li><li>a. Mustard oil</li><li>b. Milk</li></ul>	114. The enzyme which hydrolyses starch to maltose is:
c. Tea d. Milk	a. Protease b. Amylase
109. "C" enamel cans are used for:	c. Lactase d. Maltase
a. High acidic food b. Non-acidic foods	115. Enzymes having slightly different molecules structure but performing identical activity are:
c. Medium-acidic foods	a. Apoenzymes b. Isoenzymes
d. Fat rich foods	c. Holoenzymes d. Coenzymes
110. AGMARK was promulgated in:	116. Ribozyme is:
a. 1937 b. 1954	a. RNA without phosphate
c. 1935 d. 2009	b. RNA with sugar
111. Cold test of fat is a measure of:	c. RNA with enzyme activity
a. Freezing point of oil	d. RNA with extra phosphate
b. Viscosity of oil at temperature just above its freezing point	117. Human insulin is being commercially produced from a transgenic species of:
c. Resistance of oil to crystallization	a. Escherichia b. Saccharomyces
d. Total saturated fat	c. Rhizobium d. Mycobacterium
112. For manufacturing of pasta, wheat variety used is:	118. Example of a typical homopolysaccharide is:
a. Soft wheat b. Hard wheat	a. Lignin b. Suberin
c. Durum wheat d. White wheat	c. Inulin d. Starch
113. Which of the following is produced with the combination of apoenzyme	119. Which of the following is not a conjugated protein?
and coenzyme?	a. Peptone b. Phosphoprotein
a. Holoenzyme	c. Lipoprotein d. Chromoprotein
b. Enzyme substrate complex	120. The "Repeating Unit" of glycogen is:
c. Prosthetic group	a. Fructose b. Mannose
d. Enzyme product complex	c. Glucose d. Galactose
	11 (Contd.)

- 121. The catalytic efficiency of two different enzymes can be compared by the:
  - a. Molecular size of the enzyme
  - b. The pH optimum value
  - c. The Km value
  - d. Formation of the product
- 122. High value of BOD (Biochemical Oxygen Demand) shows:
  - a. Water is normal
  - b. Water is highly polluted
  - c. Water is less polluted
  - d. None of these
- 123. Which of the following is fermentation process?
  - a. Batch process
  - b. Continuous process
  - c. Both a and b
  - d. None of these
- 124. Who showed that *Sacchaaromyces* cerevisiae causes fermentation forming products such as beer and buttermilk?
  - a. Louis Pasteur
  - b. Alexander Fleming
  - c. Selman Waksman
  - d. Schatz
- 125. A bioreactor is:
  - a. Hybridoma
  - b. Culture containing radioactive isotopes

- c. Culture for synthesis of new chemicals
- d. Fermentation tank
- 126. Humulin is:
  - a. Carbohydrate
- b. Protein
- c. Fat
- d. Antibiotics
- 127. Enzyme immobilisation is:
  - a. Conversion of an active enzyme into inactive form
  - b. Providing enzyme with protective covering
  - c. Changing a soluble enzyme into insoluble state
  - d. Changing pH so that enzyme is not able to carry out its function
- 128. Vinegar is obtained from molasses with the help of:
  - a. Rhizopus
- b. Acetobacter
- c. Yeast
- d. Both b and c
- 129. Which of the following statements is incorrect regarding Gram negative bacteria:
  - a. Cell wall has a thin peptidoglycan layer
  - b. Cell wall lipid content is very low
  - c. Lipopolysaccharide layer is present
  - d. All of these

	are:			а	Produce hard	cheese and cream
	a. Clostridium and	l Salmonella		и.	cheese	sheese and eream
	b. Clostridium and	l E.coli		b.	Fluid milk	
	c. E.coli and Salm	nonella		c.	Fluid cream and	d cottage cheese
	d. Clostridium and	l Streptococcus		d.	Butter and any form	product in dried
131.	Clostridium perfinassociated with:	igens poisoning is	137.		food must cont	
	a. Meat products	b. Vegetables		_	grams of fat per serving to be considered a low fat food:	
	c. Canned foods	d. Fish products		a.	8	b. 6
132.	Salmonellosis invo	olves:		c.	3	d. 7
	<ul><li>a. An enterotoxin</li><li>b. An enterotoxin</li></ul>		138.			otein in milk that
	c. An exotoxin an				Casein	b. Gluten
	d. A cytotoxin onl				a and b	d. Whey protein
133.	The lipid with the l for human nutritio		139.		is a defe scribed as tastin	ect in milk that is g papery:
	a. Cardiolipin	b. Olestra		a.	Bitter	b. Flat
	c. Margarine	d. Olive oil		c.	Oxidized	d. Salty
134.	134. One serving of Cheddar cheese (28g) provides% of the RDA of calcium:		140.	cla	is the general name for a class of bacteria that causes mastitis in dairy cattle:	
	a. 10 c. 75	b. 50 d. 20		a.	Lactobacilus	
				b.	E.coli	
135.	Which of the follo product?	owing is a Class II		c.	Staphylococcus	
	a. Frozen desert	b. Butter		d.	Lactococcus	
	c. Fluid milk	d. Cheese				

130. Common food poisoning microbes

13 (Contd.)

136. Class IV milk includes milk used to...

- 141. Most UHT pasteurized milk has a shelf life of \_\_\_\_ days:
  - a. 10
- b. 120
- c. 180
- d. 50
- 142. During malting, barley and other grains are broken down by:
  - a. Heating to 95 °C
  - b. Lagering
  - c. Amylases
  - d. Yeasts
- 143. Milk fermentation to produce cheese is done initially by inoculating with:
  - a. Saccharomyces cerevisiae
  - b. Streptococcus lactis and Lactobacillus spp.
  - c. Acetobacter and Gluconobacter
  - d. Lactobacillus bulgaricus and Streptococcus thermophilus
- 144. Nitrates maintain the red color of preserved meats and:
  - a. Are among the most widely used preservatives
  - b. Inhibit germination of botulism spores
  - c. Maintain a high osmotic pressure to kill microorganisms
  - d. Prevent mold
- 145. Salting, as a preservative:
  - a. Retards growth of Staphylococcus aureus

- b. Plasmolyzes bacteria and fungi
- c. Is used to prevent growth of halophiles
- d. All of the above
- 146. In batch fermentation:
  - Substrates are added to the system all at once and runs until product is harvested
  - b. Nutrients are continuously fed into the reactor and the product is siphoned off during the run
  - c. New batches of microorganisms are screened for increased yield
  - d. Small-scale production is used to synthesize product
- 147. The technique first described to determine the incipient spoilage in meat was:
  - a. Homogenate Extract Volume (HEV)
  - b. Agar Plate Count (APC)
  - c. Extract Release Volume (ERV)
  - d. None of the above
- 148. Which of the following is responsible for a musty or earthy flavor?
  - a. Actinomycetes
  - b. Flavobacterium
  - c. Both a and b
  - d. Pseudomonas syncyanea

- 149. Molds causing spoilage of eggs include species of:
  - a. Cladosporium
  - b. Mucor
  - c. Thamnidium
  - d. All of these
- 150. Vacuum packaged meats are spoiled by:
  - a. B. thermosphacta
  - b. Lactobacilli
  - c. Both a and b
  - d. None of these
- 151. Which of the following pairs is not correctly matched?
  - a. X-ray: Roentgen
  - b. Radioactivity: Becquerel
  - c. Microscope: Galileo
  - d. Oxygen: Joseph Priestley
- 152. What is the correct sequence of Planets in terms of decreasing size?
  - a. Saturn, Earth, Neptune, Mars
  - b. Earth, Saturn, Mars, Neptune
  - c. Earth, Mars, Saturn, Neptune
  - d. Saturn, Neptune, Earth, Mars
- 153. Which of the following is incorrect about Nobel Prize 2014?
  - a. The Prize in Physics was awarded for invention of efficient blue light emitting diodes

- b. The Prize in Medicine was given for discovery of cells constituting positioning system in brain
- c. Kailash Satyarthi became first Indian to receive Noble Peace Prize
- d. Malala Yousafjai became the youngest ever Noble Peace Prize winner
- 154. Which of the following is a Kharif crop?
  - a. Tobacco
- b. Barley
- c. Potato
- d. Maize
- 155. Which of the following countries does not have Coastline?
  - a. Zimbabwe
- b. Cambodia
- c. North Korea
- d. Finland
- 156. Name the first Vice President of India who was given Bharat Ratna:
  - a. Sarvapalli Radhakrishnan
  - b. Gyani Zail Singh
  - c. Dr. Rajendra Prasad
  - d. APJ Abdul Kalam
- 157. The maximum duration for which President of India's Office can remain vacant:
  - a. 2 months
- b. 3 months
- c. 6 months

15

d. It cannot

remain vacant

- 158. Which of the following pair (National Park: State) is incorrect?
  - a. Simlipal: Orissa
  - b. Nokrek: Meghalaya
  - c. Tadoba: Maharashtra
  - d. Guindy: Karnataka
- 159. Which body part gets affected in Cirrhosis?
  - a. Heart
- b. Liver
- c. Kidney
- d. Lungs
- 160. Which of the following teams did not play Semi Finals of inaugural edition of Hero Indian Super League?
  - a. Kerala Blasters
  - b. Chennaiyin FC
  - c. FC Goa
  - d. United North East
- 161. In Jainism 'Kaivalya' means:
  - a. Perfect Knowledge
  - b. Meditation
  - c. Nirvan
  - d. Ratna
- 162. Pulmonary artery originates from:
  - a. Right ventricle
  - b. Right auricle
  - c. Left auricle
  - d. Left ventricle

- 163. Which of the following means "by what authority"?
  - a. Mandamus b. Quo Warranto
  - c. Certiorari d. Habeas Corpus
- 164. Model Code of conduct comes in to force during election from:
  - a. Date of Notification
  - b. Last date of filing nomination
  - c. Date of announcement of election schedule by ECI
  - d. Date of Nomination
- 165. Who was known as 'Little Corporal'?
  - a. Bismark
  - b. Adolf Hitler
  - c. Napoleon Bonaparte
  - d. Lord Curzon
- 166. Which of the following states have only one representatives each in Lok Sabha?
  - a. Nagaland, Mizoram
  - b. Goa, Nagaland
  - c. Arunachal Pradesh, Tripura
  - d. Meghalaya, Mizoram
- 167. Beighton Cup is associated with:
  - a. Badminton
- b. Polo
- c. Kabaddi
- d. Hockey

168.			INDICA was write	ten by:	
	human being is:		a. Ban Bhatt	b. Kalidas	
	a. 5-6 litres b. 3-4 litres		c. Chanakya	d. Megasthenese	
	c. 2-3 litres d. 8-10 litres	174.	World's only floati located in:	ng National Park is	
169.	<ul><li>Which of the following pairs is incorrect?</li><li>a. Bora-Adriatic Sea</li><li>b. Mistral-Gulf of Lion</li></ul>		a. India	b. West Indies	
			c. Malaysia	d. Australia	
			Jet Streams are:		
	c. Harmattan-Gulf of Guinea d. Simoom-Gulf of Tongkin  Which of the following pair (river: origin place) is incorrect?  a. Chambal: Janapav b. Son: Amarkantak		a. Wind System v	with a pronounced	
			seasonal reverse in direction		
			<ul><li>b. Winds blowing from subtropical High Pressure belts towards subpolar low pressure belts</li><li>c. Winds blowing from sub-polar low pressure belts towards subtropical</li></ul>		
	d. Godavari: Mahabaleshwar		d. Narrow meandering bands of swift		
171.	What is the name of position in which Earth and Sun are nearest?			blow in the mid he tropopause and be	
	a. Perihelion b. Aphelion	176	<u> </u>		
	c. Apogee d. Perigee	1/0.	What is the missing number in the series:		
172.	Who said that 'Education is the		2, 7, 28, 63, 126,		
	manifestation of perfection already in man'?		a. 215	b. 245	
			c. 276	d. 296	
	a. Swami Vivekanand				
	b. Sri Aurobindo				

c. Ravindranath Tagore

d. Subhash Chandra Bose

- 177. A man starts walking from his house towards south. After walking 5 km, he turned to his left and walked 6 km. Then he walked further 5 km after turning left. Then he turned to his left and continued to walk for 9 km. How far is he from his house?
  - a. 3 km
- b. 4 km
- c. 5 km
- d. 6km
- 178. A man pointing to a lady said, "The son of her only brother is the brother of my wife". The lady is related to the man as:
  - a. Mother-in-law
  - b. Grand Mother
  - c. Mother's sister
  - d. Sister of Father-in-law
- 179. Which of the following country became first member of European Union to recognise the State of Palestine?
  - a. Hungary
- b. Sweden
- c. Poland
- d. Iceland
- 180. The first border haat (market) facility on Indo-Bangladesh International border in Tripura was recently opened at:
  - a. Sylhet-Chittagong border
  - b. Srinagar-Ramgarh border
  - c. Khulna-Rajshahi border
  - d. Rangpur-Dhaka border

- 181. International 'Internet Day' is celebrated on:
  - a. 27 August
- b. 28 September
- c. 29 October
- d. 30 November
- 182 Maya Rao who died recently was a renowned:
  - a. Kathak dancer
  - b. Bihu dancer
  - c. Odishi dancer
  - d. Kuchipudi dancer
- 183. The lifespan of Red Blood Cells (RBCs) is:
  - a. 60 days
- b. 120 days
- c. 180 days
- d. 200 days
- 184. Biosensor is used to measure:
  - a. Body pH
  - b. Blood Glucose level
  - c. Haemoglobin
  - d. Salinity in urine
- 185. Which are primary colours?
  - a. White, Black, Blue
  - b. Red, Yellow, Orange
  - c. Red, White, Green
  - d. Red, Green, Blue
- 186. The percentage (%) of Carbon in atmosphere, by volume, is:
  - a. 0.03
- b. 3
- c. 13
- d. 21

- 187. Which organization releases 'World Investment Report' every year?
  - a. UNCTAD
- b. WTO
- c. IMF
- d. World Bank
- 188. Right to Property, according to Indian Constitution is a:
  - a. Legal Right
  - b. Social Right
  - c. Fundamental Right
  - d. Statutory Right
- 189. The book 'Planning and the Poor' was authored by:
  - a. Gunnar Mirdal
  - b. Amartya Sen
  - c. David Ricardo
  - d. B.S. Minhas
- 190. Which of the following pair (Country: Capital) is incorrect?
  - a. Cambodia: Vientin
  - b. Philippines: Manila
  - c. Syria: Damascus
  - d. Estonia: Tallin
- 191. Total number of High Courts in India is:
  - a. 20
- b. 22
- c. 24
- d. 25

- 192. Which one of the following is the correct chronological order in which the Grand Slam Tennis Tournaments are held every year?
  - a. US Open-French Open-Australian Open-Wimbledon
  - b. Australian Open- French Open-Wimbledon-US Open
  - c. French Open-Australian Open-US Open-Wimbledon
  - d. Wimbledon-French Open-US Open-Australian Open
- 193. Which article of the Indian Constitution relates to "Right to Education"?
  - a. Article 45
- b. Article 26A
- c. Article 21
- d. Article 15
- 194. When was Manipuri language added to 8th Schedule of Indian Constitution?
  - a. 1992
- b. 1998
- c. 2001
- d. 2004
- 195. Which of the following pairs is not correctly matched in respect of Manipur?
  - a. Nongeen: State bird
  - b. Pengba: State fish
  - c. Sangai: State animal
  - d. Orchid: State flower

- 196. The components of Human Development Index are:
  - a. Life Expectancy, Per Capita GDP and Sex Ratio
  - b. Sex Ratio, Educational Attainment and Pure Drinking Water
  - c. Life Expectancy, Per Capita GDP and Educational Attainment
  - d. Per Capita GDP, Sex Ratio and Infrastructure
- 197. What is Potlei?
  - a. A transparent and thin veil thrown over the head
  - b. Ras costume of Sri Radhika and the Gopis
  - c. Golden ring round the head
  - d. An Embroidered brightly coloured silk skirt

- 198. 21st Commonwealth Games in 2018 will be hosted by:
  - a. Australia
- b. South Africa
- c. Cameroon
- d. Maldives
- 199. Irang, Maku and Tuivai are important tributaries of:
  - a. Barak river
- b. Imphal river
- c. Yu river
- d. Chakpi river
- 200. Thabal Chongba is integral part of which festival?
  - a. Yaoshang
  - b. Ningol Chakouba
  - c. Heikru Hidongba
  - d. Cheiraoba