

Domain Knowledge Test for recruitment of Assistant Professor in DUVASU, Mathura

Subject: Livestock Products Technology

- Q. No. 1 The principal saturated fatty acid in milk is**
- a Oleic acid
 - b Stearic acid
 - c Palmitic acid
 - d Myristic acid
- Q. No. 2 Which of the following statement is wrong?**
- a A1 β -casein of A1 milk releases β -casomorphin-7 upon digestion
 - b A1 and A2 β -caseins of A1 and A2 milks respectively differs in amino acid at the position 67
 - c A2 β -casein has the amino acid proline at the position 67
 - d The frequency of A2 allele responsible for A2 milk among all indigenous cattle breeds of India is 100%
- Q. No. 3 Which of the following statement is correct?**
- a Milk procured from rural areas is of very poor microbiological quality, in general.
 - b In India, milk from rural areas are sent to large organised dairy plant for processing without any intervention chilling
 - c Methylene blue dye reduction test is a platform test used to assess microbiological quality of incoming raw milk.
 - d Dye reduction tests can show variations in test results particularly in case of chilled milk
- Q. No. 4 Which of the following physical condition of concentrated milk is not caused by heat instability during heat treatment?**
- a Frothing
 - b Sedimentation during storage
 - c Gelation
 - d Flocculation
- Q. No. 5 High heat treatment for pasteurization in milk intended for hard cheese making is not preferred because**
- a The cheese will have bitter flavor
 - b The coagulum/curd will be softer
 - c There will not be any coagulation as denatured β -lactoglobulins block κ -casein resulting in failure of rennet action
 - d There will not be any coagulation as denatured α -lactalbumins block α_s -casein resulting in failure of rennet action

- Q. No.6** A sub-pasteurization heat treatment method applied to raw milk usually between 62–65°C for 10–20 sec with intention to extend the storage life of raw milk but inadequate to destroy any pathogens of concern is known as
- Low Temperature Long Life pasteurization
 - Ultra pasteurization
 - Thermisation
 - Shelf life extension sub-pasteurization
- Q. No. 7** Which of the following statements regarding muscle contraction is false?
- On translocation of tropomyosin and consequent uncovering of thin filament, the myosin head will bind to the actin filament to form an actomyosin complex
 - ADP + Pi release from the myosin head cause conformational shift at the hinge of the myosin heavy chain (MHC) in the form of a head “tilt” towards the z- disk of the sarcomere
 - A new ATP then binds to the myosin head detaching the myosin head from the thin filament and dissociating the actomyosin complex
 - The ATP is then hydrolyzed to ADP + Pi by the ATPase on the myosin head causing the myosin head to tilt back to its original position
- Q. No. 8** Which of the following yields the leanest carcass?
- Rabbit
 - Beef
 - Mutton
 - Pork
- Q. No. 9** Milk appears white by reflecting all light wavelengths and without absorbing any, due to
- Lactose
 - Colloidal calcium
 - Micelles
 - Beta carotene
- Q. No. 10** The ISO standard that deals with food safety management system
- ISO 22000
 - ISO 14000
 - ISO 9002
 - ISO 9003
- Q. No. 11** Which of the following is not a omega-3 fatty acid?
- Oleic acid
 - n*-3 fatty acids
 - Eicosa pentaenoic acid
 - Docosahexaenoic acid

- Q. No. 12 The amino acid unique to elastin is**
- a Elastine
 - b Desmosine
 - c Hydroxy lysine
 - d Lysine
- Q. No. 13 Meat obtained from old animals are tough because**
- a The connective tissue content becomes greater than myofibrillar content
 - b The number and stability of collagen intermolecular cross linkages increases
 - c The elastin content of muscle increases during ageing
 - d The intermuscular fat increases
- Q. No. 14 Which of the following is/are characteristics of white fibers of muscle?**
- a White fibers have lower myoglobin content than red fibers
 - b White fibers have low content of glycolytic enzymes and a low oxidative enzyme activity
 - c White fibers are tonic in mode of action
 - d White fibers are having high lipid content
- Q. No. 15 Which of the following fatty acid is most abundant in animal body?**
- a Eicosapentaenoic acid
 - b Docosahexaenoic acid
 - c Oleic acid
 - d Palmitic acid
- Q. No. 16 Which of the following is not a regulatory protein?**
- a Troponin
 - b α -actinin
 - c Tropomyosin
 - d Actin
- Q. No. 17 Which of the following statements is correct?**
- a Electrical stimulation shortens the time to onset of rigor mortis
 - b Electrical stimulation results in elongated sarcomeres
 - c Electrical stimulation results in increased glycogen content of meat
 - d Electrical stimulation increases the pH of meat
- Q. No. 18 Which of the following can cause cold shortening in buffalo carcasses?**
- a Improper packaging and quick freezing
 - b Rapid chilling to 10-15°C or below when the muscle pH is >6.2
 - c Rapid chilling to 10-15°C or less when the muscle is in rigor
 - d Improper stunning

- Q. No. 19 Which of the following is not necessary for muscle contraction in a carcass?**
- a Calcium ions
 - b ATP
 - c Nerve impulse/stimulation
 - d Glycogen
- Q. No. 20 Post mortem rigor onset is triggered by**
- a Glycogenolysis
 - b Postmortem glycolysis
 - c Exhaustion of ATP
 - d Exhaustion of glycogen
- Q. No. 21 Which of the following is the most energy intensive method of meat preservation?**
- a Canning
 - b Intermediate moisture meat products
 - c Irradiation
 - d Freezing
- Q. No. 22 Case hardening in dried meat products can be prevented during drying by**
- a Increasing the rate of drying
 - b Reducing the rate of drying
 - c Maintaining constant temperature and pressure around the product
 - d Reducing the pressure and increasing rate of drying around the product
- Q. No. 23 Which of the following statement indicates that meat emulsion is not an ideal food emulsion?**
- a Meat emulsion contains two phases
 - b Fat is present as dispersed phase
 - c Fat particle size varies widely and can be up to 50 microns
 - d The continuous phase is an aqueous phase consisting of salt extracted myofibrillar protein solution
- Q. No. 24 Which of the following is used as synthetic colour additive in cured meat products?**
- a Carmine
 - b Fermented rice with Angkak
 - c Paprika
 - d Erythrosine
- Q. No. 25 Which of the following statements is wrong?**
- a Texture is a sensory property
 - b Texture profile analysis can be done sensorily as well as with instruments
 - c The variation in texture among samples are bare minimal in instrumental texture profile analysis
 - d Texture is a multi parameter attribute

- Q. No. 26 Which of the following ingredient can act as phosphate replacer in meat products?**
- a Monosodium glutamate
 - b Certain types of functional native starches
 - c Added water in formulation
 - d None of the above
- Q. No. 27 The objective of preservation of meat is**
- a to kill microorganisms
 - b to inactivate enzymes
 - c to improve taste
 - d to extend the shelf life
- Q. No. 28 'Freezer burn' in frozen meat is caused by**
- a surface desiccation due to improper packaging
 - b injury to muscle tissue by enzymes during freezing
 - c burning caused by temperature fluctuations
 - d use of excessively low temperature during freezing
- Q. No. 29 Which of the following statement is false with regard to thermal processing of meat?**
- a D value reflects the resistance of an organism at a specific temperature
 - b z-value provides relative resistance of an organism to different specific temperatures.
 - c z-value helps to determine equivalent thermal process at different temperatures
 - d F-value is the measure of the capacity of a heat process to help germination of spores
- Q. No. 30 Which of the following phosphate can be used as acidulant during curing of meat?**
- a Sodium tripolyphosphate citrate
 - b Sodium hexameta phosphate
 - c Potassium pyrophosphate
 - d Sodium acid pyrophosphate
- Q. No. 31 Which of the following unit operation does not extract myofibrillar proteins during meat processing?**
- a Tumbling
 - b Mixing
 - c Massaging
 - d Mincing

- Q. No. 32** Which among the following ingredients is responsible for preservation effect in cured meat products?
- a Nitrate
 - b Nitrite
 - c Salt
 - d Ascorbate
- Q. No. 33** Which of the following equipment is used in high speed high volume emulsion sausage manufacturing lines?
- a Bowl chopper
 - b Emulsifier
 - c Vacuum tumbler
 - d Massager
- Q. No. 34** Which of the following concept/ method is used in new product development?
- a Innovation product
 - b Fresh gate method
 - c Stage-Gate process
 - d New stage system
- Q. No. 35** Strategy for detection of GMO in foods involves
- a Detection of regulatory sequences or marker genes or specific genes of GMO and their quantification
 - b Identification of metabolites of host cells
 - c Identification of specific vitamin and mineral of GMO
 - d Detection of *mav* gene
- Q. No. 36** The white muscle contains
- a Higher amount of omega 3 fatty acids
 - b Lower amount of myoglobin
 - c Lower number of sarcoplasmic reticulum
 - d Higher number of mitochondria
- Q. No. 37** The temperature of hot water in the sterilizer of a slaughter house should be not less than
- a 72°C
 - b 82°C
 - c 65°C
 - d 78°C
- Q. No. 38** The system of slaughter most suitable for an abattoir to be located in a small village in Uttar Pradesh is
- a Canpak system
 - b Continuous powered system
 - c Intermittent powered system
 - d Slaughter slab system

- Q. No. 39** A medium sized abattoir of 50000+ livestock units per year requires an area of
- a 1-2 acres
 - b 7-8 acres
 - c 2-4acres
 - d 4-6 acres
- Q. No. 40** The temperature of chilling room in an abattoir is maintained at
- a 5°C
 - b 0-4°C
 - c -18°C
 - d 10°C
- Q. No. 41** Physico-chemical process of removing soil in an meat plant is known as
- a Sanitizing
 - b Sanitation
 - c Desoiling
 - d Cleaning
- Q. No. 42** Which of the following detergent is most appropriate for modern meat processing plant?
- a Acid detergent
 - b Alkaline detergent
 - c Neutral detergent
 - d Quaternary ammonium compounds
- Q. No. 43** Which of the following method is used in primary treatment of meat plant effluents?
- a Screening
 - b Anaerobic digestion
 - c Dissolved air floatation
 - d Activated sludge process
- Q. No. 44** Which of the following is the most common physical sanitizing agent used in a meat plant?
- a Steam
 - b High pressure steam
 - c Chlorine
 - d Hot water
- Q. No. 45** Which of the following factors is not monitored during chilling of carcasses under normal operating conditions?
- a Temperature and RH
 - b Air velocity
 - c Spacing of carcasses
 - d Method of hanging carcasses

- Q. No. 46 Which of the following benefit is not obtained through electrical stimulation of carcasses in abattoir?**
- a Preventing cold shortening in carcasses
 - b Improving tenderness of muscles
 - c Permitting rapid chilling of carcasses
 - d Improving keeping quality of meat
- Q. No. 47 Which of the following section is not essential in an abattoir?**
- a Cloak and shower for employees
 - b Veterinary laboratory
 - c Suspect meat room
 - d Head room
- Q. No. 48 Which of the following statements is false regarding processing of meat products?**
- a Nitrite when used in curing shall be added as curing mixture rather than directly as sodium nitrite.
 - b Sodium tripolyphosphates before addition to meat need to be dissolved first in small quantities of warm water and added to the formulation along with rest of water as ice.
 - c Erythorbate when intended to be used in curing brine, shall be mixed in the brine just prior to injection or immersion of meat.
 - d When curing brine is accurately prepared, level of brine injection/ brine pick-up yield will not affect the composition of the product.
- Q. No. 49 The acceptable level of “purge” in a vacuum packaged meat is:**
- a 1-2%
 - b 4-5% approx.
 - c 7-10% approx.
 - d 15% approx.
- Q. No. 50 Which of the following MAP combination provides a long microbiological shelf life and a stable cherry red colour of meat?**
- a 70% O₂+ 30% CO₂
 - b 30% O₂ + 30% CO₂ + 40% N₂
 - c 60-70% CO₂ + 30-40% N₂ + 0.4% CO
 - d 70% O₂+ 30% CO₂+ 10%N₂

- Q. No. 51 Which of the following section of Food Safety and Standards Regulations (2011) of FSSAI deals with 'sanitary and hygienic requirements for the retail meat shops'?**
- a Food Safety and Standards (Packaging) Regulation, 2018
 - b Food Safety and Standards (Prohibition and Restriction of Sales) Regulation, 2011
 - c Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011
 - d Food Safety and Standards (Licensing and Registration of Food Businesses) Regulation, 2011
- Q. No. 52 Which of the following is least important while choosing packaging system for frozen restructured meat products?**
- a Colour
 - b Lipid oxidation
 - c Microbial spoilage
 - d Moisture loss
- Q. No. 53 Which of the following factors does not influence the colour intensity of red meat?**
- a Age
 - b Stress
 - c Technology adopted during dressing
 - d Specific gas like O₂, CO₂ etc. in package atmosphere
- Q. No. 54 The principal microbiological safety concern in vacuum packaged refrigerated pasteurized foods of extended durability (REFPED) is**
- a Nonproteolytic *C. botulinum*
 - b *Brochothrix thermosphacta*
 - c Lactobacilli
 - d *Bacillus cereus*
- Q. No. 55 Which of the following organism is not a safety risk in chilled MAP poultry?**
- a *C. jejuni*
 - b *L. monocytogenes*
 - c *A. hydrophila*
 - d *Clostridium perfringens*
- Q. No. 56 The biological oxygen demand level mandated by FSSR (2011) for effluents emanating from meat processing units must be less than**
- a 500 mg/L
 - b 1000 mg/L
 - c 1500 mg/L
 - d 2000 mg/L

Q. No. 57 Which of the following statements regarding livestock marketing is false?

- a On the farm sales are the best choice for livestock producers
- b Taking livestock to market or buying place entails transport expenditure and shrink loss to farmers account
- c Brokers or commission agents do not take ownership of livestock
- d Brokers or commission agents are less efficient than direct buyers in places where animals need to be bought from scattered locations and assembling and sorting for transport

Q. No. 58 One of the lipophilic compound responsible for boar taint is

- a Inosine
- b Glutamate
- c Oleic acid
- d Skatole

Q. No. 59 Which of the following statement is false?

- a During contraction of muscle, H-zone width decreases
- b During contraction of muscle, A-band width decreases
- c During contraction of muscle, I- band width decreases
- d During contraction of muscle, the sarcomere length decreases

Q. No. 60 Catty odour is observed in

- a Aged pork flesh
- b Excessively irradiated meat
- c Improperly canned meat
- d DFD beef

Q. No. 61 Throughout the world the 'live bird shrink' during transport is ordinarily borne by

- a Transporters/ hauliers
- b Owners of processing plant
- c Government
- d Farmers

Q. No. 62 Pasteurization of liquid egg products targets reliable destruction of

- a *Listeria monocytogenes*
- b *Salmonella* sp.
- c *Coxiella burnetti*
- d *Clostridium botulinum*

Q. No. 63 Which of the following ingredient is essential for development of cured colour and cured flavour?

- a Nitrite
- b Nitrate
- c Salt
- d Ascorbate

- Q. No. 64 Usual average dead on arrival birds at broiler processing plant can be**
- a 0.25-0.5 percent
 - b 4-5 percent
 - c 10 percent
 - d 15 percent
- Q. No. 65 Optimizing water usage in broiler processing plant to possible minimum level can result in**
- a Improved economics of plant and lowered adverse environmental effect
 - b Hygienically poor production and increased microbial load
 - c Reduced labour cost and improved profitability
 - d Increased microbial load and higher effluent treatment cost
- Q. No. 66 Which of the following statement most appropriately describes Good Manufacturing Practices (GMPs) in a poultry processing plant?**
- a The plant has necessary infrastructure to produce safe and wholesome meat
 - b The plant follows necessary hygienic procedures to produce safe and wholesome meat
 - c The plant has necessary infrastructure and follows necessary hygienic procedures to produce safe and wholesome meat
 - d The plant has necessary infrastructure, follows necessary hygienic procedures to produce safe and wholesome meat and maintains the infrastructure in appropriate condition
- Q. No. 67 Which of the following operations in broiler processing is determined by marketing of poultry?**
- a Slaughter method
 - b Scalding method
 - c Slaughter method and scalding method
 - d Line speed
- Q. No. 68 'Level of automation' in head removal in a broiler slaughter and dressing line can determine**
- a Methods of stunning, bleeding, bleeding time, method of evisceration, chilling and packaging
 - b Methods of stunning, bleeding and bleeding time
 - c Methods of bleeding and bleeding time
 - d Methods of preservation and marketing
- Q. No. 69 Which of the following appropriately describes a poultry roll?**
- a Restructured meat product
 - b Sectioned and reformed product
 - c Shelf stable product
 - d Intermediate moisture meat product

- Q. No. 70** Removal of which of the following ingredient is necessary before drying of egg liquids?
- a Sucrose
 - b Proteins
 - c Unsaturated fatty acids
 - d Glucose
- Q. No. 71** Which of the following is not a functional property of egg?
- a Coagulation
 - b Foaming
 - c Crystallization
 - d Emulsification
- Q. No. 72** Which of the following unit operation is typical of section and reformed meat product manufacture?
- a Tumbling
 - b Mixing
 - c Emulsification
 - d Chopping
- Q. No. 73** Which of the following liquids contains highest viscosity?
- a Egg albumen
 - b Whole egg
 - c Salted egg yolk
 - d Sugared egg yolk
- Q. No. 74** During whole egg powder manufacturing which of the following ingredient is added to egg liquid to retain whipping quality (loss of foaming power) before drying?
- a Sugar
 - b Salt
 - c Sodium silico aluminate
 - d Sodium tripolyphosphate
- Q. No. 75** Which of the following statement regarding development of Maillard browning during drying of foods is false?
- a It proceeds rapidly when meat is dried to 15-20% moisture
 - b Drying must be scheduled such that the drying passes through the moisture range of 15-20% rapidly to minimize the time for Maillard browning
 - c It can be controlled by removing reducing sugars, if any, in the product formulation
 - d Addition of sorbitol in formulation does not inhibit maillard browning.

- Q. No. 76 Which of the following statements is not true regarding intermediate moisture meat products?**
- a They are ready-to-eat products without any need for reconstitution or preparation prior to consumption
 - b The major hurdle employed is reduction of water activity along with other hurdles
 - c They must strictly contain a moisture content between 15-50% and a_w between 0.6-0.85
 - d They may spoil by yeast and moulds if care is not taken by addition of fungistats
- Q. No. 77 Which of the following ingredients when used in frankfurter sausage formulation gives antibotulinal effect?**
- a Sodium chloride
 - b Ascorbate
 - c Nitrite
 - d β -glucono- δ - lactone
- Q. No. 78 Which of the following statement regarding freezing is true?**
- a It is a short term method of preservation
 - b It inactivates parasites, viruses and other microbes
 - c It inactivates toxins produced by microbes
 - d The shelf life of frozen products is limited by lipid oxidation and changes in texture and organoleptic qualities.
- Q. No. 79 Which of the following factors deployed during meat pickle preparation act as hurdles to microbial growth?**
- a a_w , pH, and heat
 - b a_w , pH, E_h , antimicrobial substances and heat
 - c pH, spices and heat
 - d a_w , pH, E_h , atmosphere, antimicrobial substances and heat
- Q. No. 80 Soy lecithin is an example for**
- a Reducing agent
 - b Emulsifier
 - c Oxidizing agent
 - d Flavor enhancer
- Q. No. 81 Which of the following is a shelf stable meat product?**
- a Franfurter
 - b Biltong
 - c Hamburger
 - d Weiner

- Q. No. 82 Which is the country of origin of Mozzarella cheese?**
- a Switzerland
 - b Germany
 - c Turkey
 - d Italy
- Q. No. 83 Which of the following statement is false with regard to thermal processing of meat?**
- a D value = reciprocal of the slope of the survivor curve
 - b z-value=reciprocal of the slope of the TDT curve
 - c $F_0 = D_r (\log a - \log b)$ where, a is the number of cells in the initial population and b is the number of cells in the final population
 - d 12-D concept refers to minimum heat process that reduce the probability of survival of the most resistant *Clostridium tetani* spores to 10^{-12} during canning of meat products
- Q. No. 84 During grading, carcasses of which food animal are segregated into cuttability grades?**
- a Cattle
 - b Sheep
 - c Goat
 - d Pigs
- Q. No. 85 Cow milk as per recent Food Safety Standards (Food Products Standards and Food Additives) 13th Amendment Regulations 2017 shall contain**
- a 3.2 percent fat and 8.3 percent SNF
 - b 3.0 percent fat and 9.0 percent SNF
 - c 3.0 percent fat and 8.5 percent SNF
 - d 1.5 percent fat and 8.5 percent SNF
- Q. No. 86 Which of the following statement regarding milk souring is not correct?**
- a Lactose is converted to lactic acid during souring
 - b Lactic acid is not responsible for sour acid flavour
 - c Souring is principally brought by yeast fermentation
 - d Sour flavor is due to volatile acids and compounds
- Q. No. 87 Which of the following cut-up part of poultry is more highly perishable under chilled (fresh) marketing?**
- a Breast
 - b Back
 - c Leg
 - d Wings

Q. No. 88 Which of the following retort pouch laminate is not suitable for microwave reheating?

- a OPA-PVdC-CPP
- b PET-OPA-CPP
- c PET-Al-CPP
- d AlO_x PET-OPA-CPP

Q. No. 89 Which of the following biobased packaging materials are fully biodegradable?

- a Third generation materials
- b Seventh generation materials
- c Second generation materials
- d First generation materials

Q. No. 90 Which of the following characteristic of the materials used for packaging pasteurized toned milk is necessary to prevent loss of nutrients and development of off-flavours?

- a Should not transmit sunlight
- b Should not transmit more than 8 percent of incident light at 500 nm λ and not more than 2 percent at 400 nm λ
- c Should be transparent completely
- d Should be completely dark

Q. No. 91 Consider the following statements regarding packaging of frozen meat-

- i. Ionomer film can be used for packaging to keep the bright red colour for one year when stored in dark at -20°C.
- ii. When frozen meat is exposed to light, immediately the red colour begins to darken.
- iii. The freezer burn can occur even when the packaging material has adequate moisture vapour barrier and with package head space eliminated.
- iv. Oxidative changes are effectively reduced through vacuum packaging.

Which of the above statement(s) is/are correct?

- a (i) is correct
- b (i) and (ii) are correct
- c (i), (iii) and (iv) are correct
- d (i), (ii), (iii) and (iv) are correct

Q. No. 92 Which of the following when used in packaging is classified as active packaging?

- a Time-temperature Indicators
- b Quality Indicators
- c RFID tags
- d Oxygen absorbers

- Q. No. 93** A packaging is classified as intelligent packaging when which of the following is used in it?
- a Microwave doneness indicators
 - b Microwave susceptors
 - c Self heating cans
 - d Antioxidant release pouches
- Q. No. 94** Which of the following packaging material is suitable for use in dehydrated and freeze dried meat products?
- a Linear low density polyethylene
 - b Poly vinyl chloride
 - c PA-LDPE coextruded as 5 layer film
 - d Polystyrene
- Q. No. 95** Which of the following packaging is used in *sous vide* products?
- a Controlled atmosphere packaging
 - b Canning
 - c Retort pouch packaging
 - d Vacuum packaging
- Q. No. 96** Which of the following statement about least cost formulation (LCF) is false?
- a Least cost formulation is based on linear programming technique
 - b LCF requires basic information on constraints and limitations of various raw materials required in formulation of a particular product
 - c The composite formula model is used whenever there are limitations in supplies of ingredients or in production capacity and LCF can generate competitive least cost formulas for several products
 - d The multiformula model could be used as a management guide for decisions relative to product mix and pricing strategy
- Q. No. 97** The tolerance limit for DDT on fat basis in milk and milk products is
- a 1.25 ppm on a fat basis
 - b 25 ppm on a fat basis
 - c 1.25 ppm on whole basis
 - d 25ppb on whole basis
- Q. No. 98** Commercial cold storage of butter is carried out at
- a -10°C to -12°C
 - b -23°C to -29°C
 - c 0°C to 4°C
 - d -5°C to -7°C

- Q. No. 99 Which of the following is used as emulsifier in ice-cream mix?**
- a Sodium alginate
 - b Diglycerides
 - c Carboxy methyl cellulose
 - d Carageenan
- Q. No.100 Currently, the price of milk is scientifically determined based on**
- a Fat content or lactometer reading
 - b Solids not fat (SNF) content
 - c Fat and SNF content
 - d Fat and minerals content
- Q. No.101 The colour of whey is due to the greenish yellow pigment**
- a Sulfglobin
 - b Flavin Adenine Dinucleotide
 - c Riboflavin
 - d Lactoglobulin
- Q. No.102is used legally in detection of adulteration of milk with water?**
- a Freezing point determination
 - b Chilling point depression
 - c Lactose concentration detection
 - d Fat percent
- Q. No.103 Which of the following enzyme present in milk, along with thiocyanate and peroxide, is exploited in short term preservation of milk in developing countries?**
- a Peroxidase
 - b Lactoperoxidase
 - c Xanthine oxidase
 - d Alkaline phosphatase
- Q. No.104 Which of the following is not 'true constituent' of milk?**
- a Milk fat
 - b Casein
 - c Lactose
 - d Lactalbumin
- Q. No.105 Which of the following is not a coagulated milk product?**
- a Cheese
 - b Yoghurt
 - c Khoa
 - d Kulfi

- Q. No.106** Which of the following is an intrinsic factor that influences the growth of microorganisms?
- a Atmospheric composition
 - b Relative humidity
 - c Moisture content
 - d Temperature
- Q. No.107** The temperature at which meat freezes is
- a -18°C
 - b -1 to -2°C
 - c 0°C
 - d Exactly at -1.5°C
- Q. No.108** Which of the following condition observed in meat is not a fungal spoilage?
- a Whisker
 - b White spot
 - c Bone taint
 - d Black spot
- Q. No.109** Which of the following is not a hygienic practice in an abattoir?
- a Reverse knife technique
 - b Multiple knife technique
 - c Stunning of animals
 - d Wearing proper uniform
- Q. No.110** z-value refers to
- a Time taken at a constant temperature to reduce the surviving bacteria in a suspension to 10% of their original number.
 - b Time taken at 250°F for heat process to destroy spores or vegetative cells
 - c Degrees F required for the thermal destruction curve to traverse one log cycle
 - d Degrees F required for thermal death point to traverse two log cycle
- Q. No.111** Thaw rigor results in
- a Tough meat
 - b Tough, dry and unpalatable meat
 - c Dark coloured meat
 - d Tender meat
- Q. No.112** Which of the following standards are considered as harmonious standard for countries under WTO?
- a Codex standards
 - b UDSA standards
 - c BIS standards
 - d EEC standards

- Q. No.113 Ageing of meat**
- a Improves shelf life
 - b Improves flavour
 - c Improves tenderness and flavor of meat
 - d Improves shelf life and tenderness but decreases flavour
- Q. No.114 Water activity is defined as**
- a ratio of vapour pressure of food to vapour pressure of pure water at 0°C
 - b ratio of vapour pressure of food to vapour pressure of pure water at same temperature
 - c ratio of vapour pressure of pure water to vapour pressure of food
 - d ratio of vapour pressure of saturated salt solution to vapour pressure of food
- Q. No.115 Which of the following statement regarding radication is wrong?**
- a It reduces number of viable specific non-sporing pathogens to nil
 - b It is considered equivalent of pasteurization in milk
 - c It uses higher irradiation dosage than radurization but lesser than radappertization
 - d It destroys enzymes and viruses
- Q. No.116 Exudation of fluid on thawing (drip) of frozen meat is influenced by**
- a Rate and extent of freezing
 - b Rate and extent of chilling
 - c Rate of chilling of meat
 - d Atmosphere surrounding the meat
- Q. No.117 Which of the following is the largest constituent in muscle on dry weight basis?**
- a Protein
 - b Fat
 - c Water
 - d Iron
- Q. No.118 Which of the following operation does not influence the value of hides?**
- a Stunning method
 - b Fleshing
 - c Mechanical dehiding
 - d Ripping Pattern
- Q. No.119 ISO 22000:2018 does not contain**
- a PRPs and OPRPs
 - b GMPs
 - c HACCP and risk assessment
 - d Environmental safety
- Q. No.120 Which method of rendering is commonly adopted in modern meat industries of India?**
- a Continuous high temperature rendering
 - b Continuous low temperature wet rendering
 - c Batch wet rendering
 - d Batch dry rendering

KEY: Livestock Products Technology

Question No.	Answer	Question No.	Answer	Question No.	Answer
1.	c	41.	d	81.	b
2.	d	42.	b	82.	d
3.	d	43.	c	83.	d
4.	a	44.	d	84.	d
5.	b	45.	d	85.	a
6.	c	46.	d	86.	c
7.	b	47.	d	87.	c
8.	a	48.	d	88.	c
9.	c	49.	a	89.	a
10.	a	50.	c	90.	b
11.	a	51.	d	91.	c
12.	b	52.	c	92.	d
13.	b	53.	c	93.	a
14.	a	54.	a	94.	c
15.	c	55.	d	95.	d
16.	d	56.	c	96.	c
17.	a	57.	d	97.	a
18.	b	58.	d	98.	b
19.	c	59.	b	99.	b
20.	c	60.	c	100.	c
21.	d	61.	d	101.	c
22.	b	62.	b	102.	a
23.	c	63.	a	103.	b
24.	d	64.	a	104.	d
25.	c	65.	a	105.	d
26.	b	66.	d	106.	c
27.	d	67.	c	107.	b
28.	a	68.	b	108.	c
29.	d	69.	b	109.	c
30.	d	70.	d	110.	c
31.	d	71.	c	111.	b
32.	c	72.	a	112.	a
33.	b	73.	c	113.	c
34.	c	74.	a	114.	b
35.	a	75.	d	115.	d
36.	d	76.	c	116.	a
37.	b	77.	c	117.	a
38.	d	78.	d	118.	a
39.	c	79.	d	119.	d
40.	b	80.	b	120.	b