

**DR. PANJABRAO DESHMUKH KRISHI VIDYAPEETH , AKOLA**  
**SEMESTER END THEORY EXAMINATION**  
**B.Sc.(Agriculture/B.Sc.(Hons.) Agriculture**

<b>Semester</b>	<b>:</b>	<b>V ( New)</b>	<b>Term</b>	<b>:</b>	<b>II</b>	<b>Academic Year</b>	<b>:</b>	<b>2021-2022</b>
<b>Course No.</b>	<b>:</b>	<b>AHDS-353 (New)</b>	<b>Title</b>	<b>:</b>	<b>Technology of Milk and Milk Products</b>			
<b>Credits</b>	<b>:</b>	<b>2( 1+1)</b>						
<b>Day &amp; Date</b>	<b>:</b>	<b>12.11.2021</b>	<b>Time</b>	<b>:</b>	<b>1.00Hr</b>	<b>Total Marks</b>	<b>:</b>	<b>40</b>

**Note :-** 1) Solve ANY FOUR Questions from SECTION-A  
2) Solve ANY SIX Questions from SECTION-B  
3) All Questions from SECTION -C are compulsory  
4) Send the PDF file of answer sheet to the email id of respective course teacher

**Model answer book**

**Section “ A”**

**Q.1. Solve any four , Answer in four to five line ( Marks 16)**

<b>1</b>	<b>Write in brief about AGMARK standards</b>
<b>Ans</b>	<b>AGMARK is an abbreviation of ‘Agriculture Marketing which provides quality standards for grading , packaging and marketing of Agriculture and Animal Husbandry products through the Agriculture produce ( grading and marketing ) Act 1937, as amended in 1986.</b>
<b>2</b>	<b>Enlist the Physio-chemical properties of milk</b>
<b>Ans</b>	<b>(1) Physical state of milk (2) Acidity &amp; pH of milk (3) Specific gravity ( 4) Freezing point (5) Boiling point ( 6) Colour of milk ( 7) Test &amp; odour (8) Specific heat ( 9) Viscosity (10) Electric conductivity</b>
<b>3</b>	<b>Define packaging and enlist the various system of packaging</b>
<b>Ans</b>	<b>Packaging can be defined as a tool that protects and contain our good with the aim of minimizing the environmental impact of our consumption The system of packaging are as follow (1) Modified atmosphere packing ( MAP) (2) Vacuum packing ( 3) Aseptic packing (4) Retort Packing (5) Active packing</b>
<b>4</b>	<b>Write down the Utilization of whey for value added products</b>
<b>Ans</b>	<b>Utilization of whey for value added products :-Whey is used for preparation of whey power , flavour whey , dried whey ,conc. Whey , condensed whey . It has antibodies , it is a body building food .</b>

<b>5</b>	<b>Write down the advantages of HTST method of pasteurization</b>
<b>Ans</b>	<b>(1)Quick heat treatment of milk ( 2) Less floor space is required ( 3) Less initial cost ( 4) Equipment are easily cleaned and sanitized (5) Less milk losses (6) Lower operating cost due to regeneration system (7) The process can be interrupted and restarted ( 8) Automatic precision control ensures positive pasteurization</b>

**Section “B”**

**Q. 6 Write in one sentence ( Solve any six) ( Mark 12)**

<b>a</b>	<b>One liter of buffalo milk of average composition yield of khao</b>	<b>220gm</b>
<b>b</b>	<b>Colour of Buffalo milk is white due to</b>	<b>Casein</b>
<b>c</b>	<b>How much percent of fat present in fat rich product</b>	<b>99.9%</b>
<b>d</b>	<b>Define specific gravity of milk</b>	<b>Specific gravity is the ratio of density of milk to density of water</b>
<b>e</b>	<b>Define Over run in ice-cream</b>	<b>The volume of ice cream obtained in excess of the volume of the mix</b>
<b>f</b>	<b>Name the preservatives use in milk products</b>	<b>Formalin , sodium benzoate , potassium sorbate</b>
<b>g</b>	<b>Define Starter culture</b>	<b>It is selected group of organism which brings desirable changes in milk and milk products</b>

**Section “C”**

**Q.7 Choose the correct answer ( Marks 12)**

<b>a</b>	<b>6.7 To 6.8</b>
<b>b</b>	<b>Lactose</b>
<b>c</b>	<b>87-90</b>
<b>d</b>	<b>BIS</b>
<b>e</b>	<b>Butter –milk</b>
<b>f</b>	<b>Centipose</b>

<b>g</b>	<b>8.5</b>
<b>h</b>	<b>-0.547° C</b>
<b>i</b>	<b>Casein</b>
<b>j</b>	<b>Standardization</b>
<b>k</b>	<b>1.030 -1.032</b>
<b>l</b>	<b>All above</b>