



## **BRAINWARE UNIVERSITY**

Term End Examination 2023-2024 Programme - B.Sc.(CCT)-2021 **Course Name – CSSD Procedures Course Code - BCCTC604** (Semester VI)

Full Marks: 60

Time: 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

## Group-A

(Multiple Choice Type Question)

1 x 15=15

1.

c) To ensure the chamber door is securely

locked during operation

1.	Choose the correct alternative from the follow	ing:
(i)	Select the minimum recommended temperat a) 100°C	ure for autoclaving to achieve sterilization b) 160°C
(ii)	c) 200°C	d) 121°C
(iii)	a) Surgical instruments     c) Bed linens     Select the recommended minimum contact ti	<ul><li>b) Needles and syringes</li><li>d) Urinary catheters</li><li>me for disinfectants to be effective.</li></ul>
(iv)	<ul><li>a) 5 seconds</li><li>c) 5 minutes</li><li>Select the primary method used in dry heat st</li></ul>	b) 30 seconds d) 15 minutes terilization.
(v)	<ul><li>a) Moist heat</li><li>c) Ultraviolet light</li><li>Select which of the following is a common ap</li></ul>	b) Hot air d) Chemical disinfection plication of dry heat sterilization.
(vi)	<ul><li>a) Sterilizing heat-sensitive materials</li><li>c) Sterilizing liquids</li><li>Select what is the primary objective of wet ste</li></ul>	<ul> <li>b) Sterilizing surgical instruments</li> <li>d) Sterilizing by autoclaving erilization.</li> </ul>
•	<ul><li>a) Elimination of all microorganisms</li><li>c) Disinfection</li><li>Select which of the following is a wet sterilizate</li></ul>	b) Reducing microbial load d) Preservation of moisture
	<ul><li>a) Autoclaving</li><li>c) Ethylene oxide gas sterilization</li><li>Describe the primary purpose of the autoclav</li></ul>	b) Dry heat sterilization d) Radiation sterilization
( /	A Target sure temperature accurately	b) To monitor humidity levels

d) To regulate pressure

(i)	(ix) Describe which gaseous sterilization method is often used for heat-sensitive materials and instruments.			
	a) Autoclaving	b) Boiling		
	c) Ethylene oxide gas sterilization	d) Dry heat sterilization		
10	Describe the purpose of aeration in ethylene oxide gas sterilization.			
( )				
	a) To remove humidity	b) To remove residual gas and by-prod	ducts	
	<li>c) To speed up the sterilization process</li>	d) To improve temperature control		
(xi	) Select which disinfectant is often used in heal	thcare settings for high-level disinfection		
	a) Aldehydes	b) Phenolics		
	c) Quaternary ammonium compounds	d) Hydrogen peroxide		
/vii	) Choose the primary hazard associated with th	• • = :		
(^1	sterilization.	e use of entryienc oxide (200) for		
	a) Radioactive emissions	b) Chemical exposure		
	c) Chemical exposure	d) Fire risk		
(xii	<ul> <li>i) Select which of the following is NOT a commo</li> </ul>	n chemical used in sterilization that pose	S	
	potential health hazards.			
	a) Ethylene oxide (EtO)	b) Formaldehyde		
	c) Sodium hypochlorite (bleach)	d) Water vapor		
(xiv	i) In recent years, select what technology has ga	and the state of t		
(^1	effective method for sterilization, using non-th			
	temperatures.	lerinai piasina generateu at iow		
	a) Steam sterilization	b) Cold plasma sterilization		
	c) Gamma radiation sterilization	d) Dry heat sterilization		
(xv	) Choose a recent sterilization technique uses a			
	and ozone to provide efficient and rapid sterili	zation with minimal environmental		
	impact.	•		
	a) Ozone sterilization	b) autoclaving		
	c) Ethylene oxide (EtO) sterilization	d) Microwave-assisted sterilization		
	Gro	лр-В		
	(Short Answer 7	ype Questions)	3 x 5=15	
		•		
2. lr	ndicate the advantages and disadvantages of dry	heat sterilization	(2)	
	xplain the principle behind dry heat sterilization.		(3)	
			(3)	
<ul><li>4. State the different types of sterilization methods available.</li><li>5. Identify the primary applications of dry sterilization in the medical field.</li></ul>			(3)	
<i>S</i> . 10	rite in brief about chemical sterilization.	on in the medical field.	(3)	
0. V		-	(3)	
le.	O	• •		
11	fer the key principles behind chemical sterilizati	on processes.	(3)	
		_		
	Grou			
	(Long Answer Ty	/pe Questions)	5 x 6=30	
7. I	valuate the role of proper packaging materials a	ind techniques in preventing hazards	(5)	
(	during sterilization.			
8. 5	Summerize how sterilization methods, such as au	itoclaving and chemical sterilization, pose	(5)	
ŗ	isks to both personnel and the environment?			
9. <i>A</i>	Analyze the influence of temperature, humidity,	and radiation dose on radiation	(5)	
S	terilization outcomes.			
10. [	Discuss the different types of autoclaves used in	various industries and applications.	(5)	
11. (	11. Compare and contrast the principles of dry heat sterilization and moist heat sterilization. (5)			
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<ol><li>Write the importance of proper packaging and loading techniques for carbor autoclaves and ovens.</li></ol>	nized articles in (5)
OR  Devise the different types of radiation used in sterilization.	(5)
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