


<b>Name:</b>			
<b>Enrolment No:</b>			
<b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b> <b>End Semester Examination, December 2022</b>			
<b>Course: Biosafety and Aseptic Techniques</b>		<b>Semester: 3<sup>rd</sup></b>	
<b>Program: Int. BSc + MSc (Microbiology)</b>		<b>Time : 03 hrs.</b>	
<b>Course Code: HSMB2012</b>		<b>Max. Marks: 100</b>	
<b>Instructions:</b>			
<b>SECTION A</b> <b>(20Qx1.5M=30Marks)</b>			
S. No.		Marks	CO
Q 1	Aerosol refers to a droplet of less in diameter; (a) 2, (b) 5, (c) 8, (d) 10.	1.5	CO1
Q 2	Define Laboratory-Associated Infections.	1.5	CO1
Q 3	What is aerosol? Is it hazardous?	1.5	CO2
Q 4	Define microbial agent.	1.5	CO2
Q 5	Write the full form of DBT and DST.	1.5	CO3
Q 6	Write the full form of NIH and WHO.	1.5	CO5
Q 7	Write the difference between liquid and solid waste.	1.5	CO1
Q 8	Write the full form of IBSC committee.	1.5	CO2
Q 9	Write the full form of BMBL.	1.5	CO1
Q 10	Write the full form of SARS-CoV-2.	1.5	CO3
Q 11	Standard Precaution does not include: 1) use of personal protective equipment (e.g., gloves, gowns, facemasks), 2) hand hygiene, 3) safe techniques/practices, 4) drinking 70% ethanol before coming to the lab.	1.5	CO4
Q 12	High individual risk, low community risk will fall under which risk group? Risk Group-1, Risk Group-2, Risk Group-3, Risk Group-4.	1.5	CO1
Q 13	Write the full form of PPE kit and CDC.	1.5	CO2
Q 14	Which BSL facilities require airlock with shower? BSL-1, BSL-2, BSL-3, BSL-4.	1.5	CO1
Q 15	Write the full form of ICMR and IACR.	1.5	CO3
Q 16	Who will be the primary contact point in case of laboratory accidents?	1.5	CO4
Q 17	Discuss the role of Biological Safety Officer (BSO).	1.5	CO4
Q 18	Discuss the role of IBSC committee at institution level.	1.5	CO2
Q 19	Can we use HIV and SARS-CoV-2 in BSL-2 facilities?	1.5	CO5
Q 20	Define waste management.	1.5	CO5
<b>SECTION B</b> <b>(4Qx5M= 20 Marks)</b>			
Q 1	Discuss the roles and responsibilities of Research Coordinator.	5	CO2
Q 2	Write the difference between global and local biosafety regulations.	5	CO2
Q 3	Discuss the mechanisms of different route of transmission of biohazardous materials in the body.	5	CO3
Q 4	Discuss why Sodium Hypochlorite are being used to disinfect the aseptic labs?	5	CO1

<b>SECTION-C</b> <b>(2Qx15M=30 Marks)</b>			
Q 1	What is Biosafety Cabinet? Discuss the role of HEPA filter in Biosafety Cabinet.	<b>15</b>	<b>CO1</b>
Q 2	Explain the classification of infective microorganisms by risk group. Discuss risk group-1, -2, -3 and -4 in detail.	<b>15</b>	<b>CO2</b>
<b>SECTION-D</b> <b>(2Qx10M=20 Marks)</b>			
Q 1	Write the difference between BSL-2 & BSL-3.	<b>10</b>	<b>CO3</b>
Q 2	What is Quality Assurance (QA)? Discuss the role of Principal Investigator (PI) in QA.	<b>10</b>	<b>CO4</b>