

**OCTOBER 2021 / SEROLOGY**

Please refer the attached evaluation format/answer template for details on the criteria for evaluation.

Parameter	Your Interpretation		Intended Result			Max Marks	Your Score
	Correct	Incorrect	STO	STH	Interpretation		
SE1	Widal*	/	Negative	Negative	Not Suggestive of Enteric Fever / Typhoid Fever	2	2

\*Expected value is determined by the Proficiency Testing Provider (PTP).

Parameter	Your Result	Your Value	Intended Result	Method	Robust Mean	Robust SD	Range	Z & Z'	Max Marks	Your Score
SE2	ASO	Negative	Negative	Turbidimetry (n-203)	62.4744	22.0452	0.067 to 502	-0.2	2	2
SE3	CRP	Positive	Positive	Turbidimetry (n-415)	76.8130	13.8291	0.043 to 987	-3.6	2	1

**Disclaimer:**

This is a confidential document and subject to the rules of confidentiality as described by the ISO 17043:2010 standard.

MEMBER ID:

**M 0 0 5 8**

S	M1	M2	M3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained
4	4	4	4	17	17	19	2	2	1	70
4	4	4	4	17	17	19	2	2	2	Maximum marks = 71

*Dr. Rani Diana Sahni*

Dr. Rani Diana Sahni  
Scientific Co-ordinator  
Report Dispatch Date: 15.03.2022

*Dr. John A Jude Prakash*

Dr. John A Jude Prakash  
Quality Manager

*Dr. V. Balaji*

Dr. V. Balaji  
PT Co-ordinator

\*\*\*\*\* End of Report \*\*\*\*\*

<b>Department</b>	Clinical microbiology
<b>EQAS Details</b>	EQAS <input checked="" type="checkbox"/> Specify: <u>IAmm SENS-microbiology</u> ILQA <input type="checkbox"/> Specify: _____
<b>Cycle</b>	<u>109</u>
<b>Sample No.</b>	<u>NA</u>
<b>Lot no.</b>	<u>NA</u>
<b>Expiry Date</b>	<u>NA</u>
<b>Sample Receiving Date</b>	<u>10/12/21</u>
<b>Sample Processing Date</b>	<u>14/12/21</u>
<b>Results send on</b>	<u>14/12/21</u>
<b>Result received on</b>	<u>2/4/22</u>
<b>Comments (if any)</b>	_____ _____ _____

**Sample Processed By**

Sign:

Name:

*Karuppasamy*  
Karuppasamy

**Approved By**

Sign:

Name:

*Jasheer*  
Jasheer

**IMPORTANT!!** All sera are potentially infectious. Adequate universal precautions to be used while handling the specimens

Note: Do not use tick marks; encircle as necessary

**C-reactive protein (CRP)**

SE3: Serum specimen from 38-year old adult with acute fever of 4 days duration.

S. no	Subject	C-reactive protein (CRP)*	
		Report	Value in (mg/L)
1	SE3	<u>Positive</u> / Negative	26.83
2	Your Normal Range	Less than 5.0	
3	Method	Qualitative	Latex agglutination
		Semi-Quantitative	Latex agglutination
		<u>Quantitative</u>	Nephelometry / <u>Turbidimetry</u> / ELISA / CLIA / Others:
4	Name of the kit used	CRP4	
5	Manufacturer (Name, City, Country)	Roche	
6	Lot No.	555900	
7	Expiry date of kit	4/22	
8	Automation used	<u>Yes</u> / No	
9	If yes, give details of	Model: Cobas - 6000	
	Automation used	Manufacturer: Roche City: Country: Germany	

\* It is understood that the value mentioned is in mg/L only

Laboratory / Institution Name: Bioline Laboratory - Calicut Date of Dispatch: 14/12/21

Authorized signatory

Signature: [Signature]  
Name: Tushara

Tushara

**IMPORTANT!!** All sera are potentially infectious. Adequate universal precautions to be used while handling the specimens

**Note:** Do not use tick marks; encircle as necessary

### Antistreptolysin O (ASO)

SE2: Serum specimen from 10-year old child with fever and sore throat for 3 days duration.

S. no	Subject	Antistreptolysin O (ASO)	
		Report	Value in (IU/mL)
1	SE2	Positive / <u>Negative</u>	58
2	Your Normal Range	Less than 200	
3	Method	Qualitative	Latex agglutination
		Semi-Quantitative	Latex agglutination
		<u>Quantitative</u>	Nephelometry / <u>Turbidimetry</u> ELISA / CLIA / Others:
4	Name of the kit used	ASLOT	
5	Manufacturer (Name, City, Country)	Roche, Germany	
6	Lot No.	549194	
7	Expiry date of kit	7/22	
8	Automation used	<input checked="" type="checkbox"/> Yes / No	
9	If yes, give details of Automation used	Model: Cobas - 6000  Manufacturer: Roche  City: Country: Germany	

**IMPORTANT!! All sera are potentially infectious. Adequate universal precautions to be used while handling the specimens**

**Note: Do not use tick marks; encircle as necessary**

### Widal

SE1: Serum specimen from 45-year old patient with acute febrile illness of 5 days duration.

S No.	Subject	STO	STH	Interpretation
1	SE1	Less than 1:20 dilution	Less than 1:20 dilution	Negative
2	Your Normal Range	Less than 1:20 dilution		
3	Method	Tube agglutination or <u>slide agglutination</u>		
4	Name of the kit used	Tydal		
5	Manufacturer (Name, City, Country)	Tecalip		
6	Lot No.	41006		
7	Expiry date of kit	3/22		

Ser/PI N 00075-4  
14/12/21 ASLOT  
14:10:56 58  
bmserv

SE2 ASO

Ser/PI N 00075-5  
14/12/21 CRP4  
14:10:56 26.83  
bmserv

SE3 CRP

Done by

Kavapp Sany  
Kavapp Sany

Verified by

Jashere Jashere

All columns should be filled for individual outliers in a sample.

Department	clinical microbiology	Branch	Calicut
Cycle	109	Sample	1Amm EQAS microbiology
Analysis Date	14/12/21	Analyte	CRP
Mean of comparator	76.81	Our value	26.83
SDI or Z-score	-3.6	% deviation	NA

Specimen Handling			Remarks, if any
Samples received in good condition	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples stores/prepared appropriately	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Integrity of the sample is acceptable	<input checked="" type="radio"/> Yes	<input type="radio"/> No	

Clerical		
Correct result entered	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Correct use of decimal points and units	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Calculation, if any, performed correctly (even if automated)	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Conversion factors applied to results before submission	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Registration and Mean for Comparison		
Registered correct method/instrument group	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Changed method or instrument without notification to EQA provider	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Mean for comparison changed due to the number of participants returning results (i.e) from method to instrument	<input type="radio"/> Yes	<input checked="" type="radio"/> No
An obvious bias between method and instrument means (check histogram and statistic section)	<input type="radio"/> Yes	<input checked="" type="radio"/> No

Internal Quality Control		
IQC % deviation (at similar conc to EQA) on the date of sample analysis is acceptable	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Shift in IQC in the periods just before and after EQA sample analysis	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Trends in IQC in the periods before and after EQA sample analysis	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Random IQC variation on sample analysis date (check IQC range of morning and evening or before EQA run)	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Error dueto imprecision; check IQC in terms of % deviation compared to deviation observed in EQA	<input type="radio"/> Yes	<input checked="" type="radio"/> No
IQC target correctly assigned	<input checked="" type="radio"/> Yes	<input type="radio"/> No

All columns should be filled for individual outliers in a sample.

### Calibration

Date of calibration	22/11/21	
Calibration frequency acceptable	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Last calibration acceptable	<input checked="" type="radio"/> Yes	<input type="radio"/> No

### Instrument

Daily maintenance performed on date of sample analysis	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Special maintenance performed prior to sample analysis	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Instrument operated correctly	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Operator fully trained	<input checked="" type="radio"/> Yes	<input type="radio"/> No

### Reagents

Reagent prepared on/ opened on date	22/11/21	
Reagent stored correctly	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Reagents within open vial stability	<input checked="" type="radio"/> Yes	<input type="radio"/> No

### EQA sample

Initial value	26.83	
Rerun value	85.76	Z score calculated - 0.64
Issue observed in previous EQA samples at similar concentration (check % deviation by conc and LJ chart)	<input type="radio"/> Yes	<input checked="" type="radio"/> No
All parameters affected (to the same extend) - possible reconstitution error (check % deviation on summary page)	<input type="radio"/> Yes	<input checked="" type="radio"/> No

### EQA sample

Conclusion	Corrective action
Calibration frequency is acceptable Ige is within limit but on lower side of the mean suspecting random error	The eqas sample is rerun on the same instrument and now the results are within limit Z score is 0.64

Done By	Jrshilka	Date	27/4/22
Approved By	Jashers	Date	27/4/22
Reviewed By		Date	



Ser/Pl N 00005-1 SE 1  
27/04/22 CRP4  
10:56:21 2.90  
bmserv

Ser/Pl N 00005-2 SE 2  
27/04/22 CRP4  
10:56:21 2.35  
bmserv

Ser/Pl N 00005-3 SE 3  
27/04/22 CRP4  
10:56:21 85.76  
bmserv

Done by

Tiskolka



Verified by

Tiskolka



<b>Department</b>	<u>clinical microbiology</u>
<b>Programme</b>	EQAS <input checked="" type="checkbox"/> Specify: <u>IAMMS-EQAS - microbiology</u> ILC <input type="checkbox"/> OTHERS <input type="checkbox"/> Specify: _____
<b>Cycle / Sample No.</b>	<u>109</u>
<b>Month &amp; Year</b>	<u>Oct - 2021</u>
<b>Nature of non-conformance</b>	<u>CRP Result outlier</u>
<b>Corrective / Preventive action taken</b>	<u>Re-run the sample with the same instrument and the results are within limit</u>
<b>Review during the next EQAS / Effectiveness of Corrective Action</b>	<u>will observe during the next time</u>

**Prepared By**

**Approved By**

Name: Tishilka  
 Sign: [Signature]

Name: Jusheer  
 Sign: [Signature]



106<sup>th</sup> IAMM EQAS Microbiology: Bacteriology/ Serology  
Department of Clinical Microbiology, Christian Medical College, Vellore-632004, Tamil Nadu  
Email: [eqas@cmcvellore.ac.in](mailto:eqas@cmcvellore.ac.in) Phone: 0416-2282588



NABL ACCREDITED ISO / IEC 17043:2010, PC-1033 / 27.12.2018

DECEMBER 2020

106<sup>th</sup> EQAS EVALUATION REPORT

MEMBER ID: M 0 0 5 8

Marks Obtained: 62.5/67(93%)

DECEMBER 2020 / BACTERIOLOGY SMEARS:

Question: Carry out the appropriate staining procedure and document the relevant observation.

Provide the Impression or probable organism seen (AS ASKED)

Please refer the attached evaluation format/answer template for details on the criteria for evaluation.

PLEASE NOTE: The inaccuracies in the participant report resulting in deduction of marks has been underlined in the expected report.

Exercise Number	Question	Expected Report	Evaluation		
			0	0.5	1
SM1	Please carry out a Gram stain on the given fixed smear prepared from a CSF specimen of a 72-year-old gentleman presenting with high grade fever, headache and vomiting for one day.	Presence of host cells & debris (1mark): Few pus cells	0	0.5	1
		Description of Organism/s (2marks): <u>Many (0.5)</u> Gram positive (0.5) lanceolate shaped diplococci (1)	1.5	2	2.5
		Probable organism (1 mark): <i>Streptococcus pneumoniae</i>	3	3.5	4
SM2	Please carry out a Gram stain on the given fixed smear prepared from a THROAT specimen of a 6-year old child presenting with a sore throat and fever and malaise for 2 days.	Presence of host cells & debris (1mark): No pus cells	0	0.5	1
		Description of Organism/s (2 marks): <u>Many (0.5)</u> Gram positive (0.5) slender club bacilli arranged Chinese letter pattern (1) along with few Gram positive bacilli in palisade arrangement.	1.5	2	2.5
		Possible organism (1 mark): <i>Corynebacterium spp</i>	3	3.5	4

CU3- Isolated as the predominant organism from an EXUDATE specimen of a left lower limb ulcer from a 63-year-old diabetic woman.  
**FINAL IDENTIFICATION: *Proteus mirabilis***

Identification details	Reported	Not reported	Evaluation (7 marks)
Microscopy (Gram stain + Motility)	✓		0 0.5 1
Salient culture and biochemical findings enabling final identification (Minimum 3 key characteristics)	✓		1 2 3 4
Final identification	✓		0 0.5 1 1.5 2

Susceptibility report	EXPECTED REPORT		PARTICIPANT REPORT		MARK 10 marks	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation	Correct		
Co-trimoxazole	≥16	≤2/38	Susceptible	✓		-1 0 1 2 mE/ ME/ VME
Levofloxacin	≥21	≤0.5	Susceptible	✓		-1 0 1 2 mE/ ME/ VME
Piperacillin-Tazobactam	≥21	≤16	Susceptible	✓		-1 0 1 2 mE/ ME/ VME
Ertapenem	≥22	≤0.5	Susceptible	✓		-1 0 1 2 mE/ ME/ VME
Meropenem	≥23	≤1.0	Susceptible	✓		-1 0 1 2 mE/ ME/ VME

**DECEMBER 2020 / SEROLOGY**

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Parameter	Your Result	Your Value	Intended Result			Method	Robust Mean	Robust SD	Range (mg/L)	Z & Z <sup>2</sup> score	Max Marks	Your Score
			STO	STH	Interpretation							
SE1 RA	Negative	9.3 IU/mL	Negative	Negative	Negative	Turbidimetry (n-245)	8.5538	4.1086	0.0 to 31.260	0.2	2	2
SE2 WIDAL*	Correct	Correct	Negative	Negative	Negative	Slide agglutination	Not Applicable	Not Applicable	Not Applicable	Not Applicable	2	2
SE3 CRP	Positive	50.28 mg/L	Positive	Positive	Positive	Turbidimetry (n-330)	60.0593	10.4966	0.08 to 199.9	-0.9	2	2

RA: Rheumatoid Factor, CRP: C-reactive Protein, NA: Not Applicable. \*Expected value is determined by the Proficiency Testing Provider (PTP).