



106th IAMM EQAS Microbiology: Bacteriology/Serology
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DECEMBER 2020

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

106th EQAS EVALUATION REPORT

MEMBER ID:

M 0 9 1 4

Marks Obtained: 65.5/67 (97.8%)

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			
S M 1	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 (1 mark): Few pus cells Description of Organism/s (2marks): <u>Many (0.5) Gram positive (0.5) lanceolate shaped diplococci (1)</u> Probable organism (1 mark): <u>Streptococcus pneumoniae</u>	0	0.5	1	
			1.5	2	2.5	
			3	<u>3.5</u>	4	
S M 2	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 (1 mark): No pus cells Description of Organism/s (2 marks): <u>Many (0.5) Gram positive (0.5) slender club bacilli arranged Chinese letter pattern (1) along with few Gram positive bacilli in palisade arrangement.</u> Possible organism (1 mark): <u>Corynebacterium spp</u>	0	0.5	1	
			1.5	2	2.5	
			3	<u>3.5</u>	4	

S/M3	Please carry out a Gram stain on the given fixed smear prepared from a voided URINE specimen of a 66-year-old lady, presenting with frequency and urgency for 2 days.	Presence of host cells & debris (1 mark): Few pus cells, Few epithelial cells Description of Organism/s (2 marks): Many (0.5) Gram positive (0.5) oval yeast like organisms with pseudohyphae (1) Possible organism (1 mark): <i>Candida</i> spp	0	0.5	1
			1.5	2	2.5
			3	3.5	4
			NOT EVALUATED		

DECEMBER 2020 / BACTERIOLOGY CULTURE:

Question: A freeze-dried (lyophilized) culture of an organism isolated from a clinical specimen is given. Carry out the appropriate techniques for each exercise and identify the pathogen. Carry out the antimicrobial susceptibility testing according to the panel given below.

Please refer the attached evaluation format for details on the criteria for evaluation.

A 'partially correct' or 'incorrect' component of the participant report which has resulted in a deduction of marks has been indicated in the evaluation report below.

CU 1: Isolated from a BLOOD culture of a 58-year-old diabetic admitted with fever and chills for 2 days following a lower urinary tract infection.

FINAL IDENTIFICATION: *Klebsiella aerogenes*

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	NOT EVALUATED		

Susceptibility report
Ceftriaxone
Gentamicin
Amikacin
Piperacillin

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation	Correct	Incorrect		
Ceftriaxone	≤19	≥4	Resistant	✓		-1 0 1 (2)	mE/ME/VME Error
Gentamicin	≥15	≤4	Susceptible	✓		-1 0 1 (2)	mE/ME/VME
Amikacin	≥17	≤16	Susceptible	✓		-1 0 1 (2)	mE/ME/VME
Piperacillin-Tazobactam	≤17	≥128/4	Resistant	✓		-1 0 1 (2)	mE/ME/VME
Meropenem	≥23	≤1	Susceptible	✓		-1 0 1 (2)	mE/ME/VME

CU2: Isolated from a URINE specimen of a 36-year old gentleman with renal calculi

FINAL IDENTIFICATION: *Morganella morganii*

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	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation	Correct	Incorrect		
Cefpodoxime*	-	≥8	Resistant	✓		-1 0 1 (2)	mE/ME/VME Error
Ciprofloxacin	≤21	≥1	Resistant	✓		-1 0 1 (2)	mE/ME/VME
Amikacin	≤14	≥64	Resistant	✓		-1 0 1 (2)	mE/ME/VME
Piperacillin-Tazobactam	≤17	≥128/4	Resistant	✓		-1 0 1 (2)	mE/ME/VME
Meropenem	≤19	≥4	Resistant	✓		-1 0 1 (2)	mE/ME/VME

* cefpodoxime Disk Diffusion testing not to be done for *Morganella morganii*

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	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Correct	Incorrect		
Co-trimoxazole	≥16	≤2/38	✓		-1 0 1 (2)	mE/ME/VME
Levofloxacin	≥21	≤0.5	✓		-1 0 1 (2)	mE/ME/VME
Piperacillin-Tazobactam	≥21	≤16	✓		-1 0 1 (2)	mE/ME/VME
Ertapenem	≥22	≤0.5	✓		-1 0 1 (2)	mE/ME/VME
Meropenem	≥23	≤1.0	✓		-1 0 1 (2)	mE/ME/VME

DECEMBER 2020 / SEROLOGY

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

Parameter	Your Result	Your Value	Intended Result			Method	Robust Mean	Robust SD	Range (mg/L)	Z & Z' score	Max Marks	Your Score
SE1 RA	Negative	18.1 IU/mL	Negative			Turbidimetry (n-245)	8.5538	4.1086	0.0 to 31.260	2.3	2	1.5
SE2 WIDAL*	Correct	Correct	STO Negative	STH Negative	Interpretation Negative	Slide agglutination	Not Applicable					
SE3 CRP	Positive	62.7 mg/L	Positive			Turbidimetry (n-330)	60.0593	10.4966	0.08 to 199.9	0.3	2	2

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

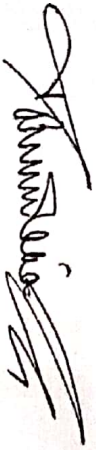
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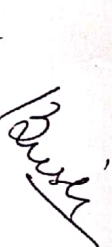
S/M1	S/M2	S/M3	C/U1	C/U2	C/U3	S/E1	S/E2	S/E3	Marks obtained	
3.5	3.5	4	15	17	17	1.5	2	2	65.5	97.8%
4	4	4	15	17	17	2	2	2	Maximum marks = 67	



Dr. Rani Diana Sahni
Scientific Co-ordinator



Dr. John A Jude Prakash
Quality Manager



Dr. V. Balaji
PT Co-ordinator

Report Dispatch Date: 28.02.2021

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