Quiz name	Course name	Open the quiz	Close the quiz	Open for	Number of complete graded first attempts	Total number of complete graded attempts	Average grade of first attempts	Average grade of all attempts	Average grade of last attempts	Average grade of highest graded attempts	Median grade (for highest graded attempt)	Standard deviation (for highest graded attempt)	Score distribution skewness (for highest graded attempt)	Score distribution kurtosis (for highest graded attempt)	Coefficient of internal consistency (for highest graded attempt)	Error ratio (for highest graded attempt)	Standard error (for highest graded attempt)
Final Exam	النظم الموزعة والسحاب ية (606) - 435_1)	Thursday, 22 January 2026, 12:15 PM	Thursday, 22 January 2026, 1:45 PM	1 hour 30 mins	26	26	59.00%	59.00%	59.00%	59.00%	56.00%	15.85%	0.6961	-0.0847	78.97%	45.86%	7.27%

Q#	Question type	Question name	Attempts	Facility index	Standard deviation	Random guess score	Intended weight	Effective weight	Discrimination index	Discriminative efficiency
1	Random	Random question	26	45.19%	34.65%		8.00%	9.49%	74.45%	78.97%
1.1	Essay	Q1	10	37.50%	31.73%	0.00%	8.00%		92.19%	97.59%
1.2	Essay	Q2	16	50.00%	36.51%	0.00%	8.00%		76.44%	80.23%
2	Random	Random question	26	96.15%	19.61%		2.00%	2.33%	32.54%	100.00%
2.1	Multiple choice	Q1	8	100.00%	0.00%	25.00%	2.00%			
2.2	Multiple choice	Q2	3	66.67%	57.74%	25.00%	2.00%		100.00%	100.00%
2.3	Multiple choice	Q3	8	100.00%	0.00%	25.00%	2.00%			
2.4	Multiple	Q4	7	100.00%	0.00%	25.00%	2.00%			

3	~~Random~~ choice	Random question	26	39.42%	39.48%		8.00%	10.10%	72.59%	78.06%
4	Random	Random question	26	41.35%	33.87%		8.00%	8.85%	63.10%	68.44%
5	Random	Random question	26	53.85%	29.74%		8.00%	8.35%	65.70%	69.79%
5.1	Essay	Q10	12	41.67%	26.83%	0.00%	8.00%		75.90%	80.47%
5.2	Essay	Q19	6	16.67%	20.41%	0.00%	8.00%		49.13%	56.58%
5.3	Essay	Q20	5	50.00%	39.53%	0.00%	8.00%		80.93%	88.89%
5.4	Essay	Q21	4	81.25%	23.94%	0.00%	8.00%		59.40%	60.87%
5.5	Essay	Q22	6	33.33%	34.16%	0.00%	8.00%		62.65%	77.78%
5.6	Essay	Q23	8	46.88%	45.19%	0.00%	8.00%		77.72%	85.33%
5.7	Essay	Q24	5	15.00%	22.36%	0.00%	8.00%		54.89%	59.68%
5.8	Essay	Q5	8	50.00%	29.88%	0.00%	8.00%		84.95%	89.16%
5.9	Essay	Q6	6	75.00%	38.73%	0.00%	8.00%		60.91%	83.33%
5.10	Essay	Q7	7	50.00%	28.87%	0.00%	8.00%		60.89%	65.38%
5.11	Essay	Q8	3	33.33%	38.19%	0.00%	8.00%		94.49%	100.00%
5.12	Essay	Q9	8	46.88%	36.44%	0.00%	8.00%		91.40%	94.14%
6	Random	Random question	26	76.92%	42.97%		2.00%	3.41%	29.14%	48.40%
7	Random	Random question	26	76.92%	42.97%		2.00%	3.52%	31.57%	50.37%
8	Random	Random question	26	84.62%	36.79%		2.00%	1.67%	4.98%	9.36%
9	Random	Random question	26	73.08%	45.23%		2.00%	3.66%	32.31%	50.34%
10	Random	Random question	26	80.77%	40.19%		2.00%	1.61%	3.10%	5.30%
11	Random	Random question	26	73.08%	45.23%		2.00%		-11.78%	-18.50%
12	Random	Random question	26	76.92%	42.97%		2.00%	2.10%	7.54%	12.43%

Q#	Question type	Question name	Attempts	Facility index	Standard deviation	Random guess score	Intended weight	Effective weight	Discrimination index	Discriminative efficiency
13	Random	Random question	26	65.38%	48.52%		2.00%		-7.66%	-10.92%
14	Random	Random question	26	76.92%	42.97%		2.00%	3.85%	38.91%	64.27%
14.1	Multiple choice	Q7	15	100.00%	0.00%	25.00%	2.00%			
14.2	Multiple choice	Q8	12	75.00%	45.23%	25.00%	2.00%		27.43%	45.30%
14.3	Multiple choice	Q9	12	58.33%	51.49%	25.00%	2.00%		31.84%	43.37%
14.4	Multiple choice	40	11	90.91%	30.15%	25.00%	2.00%		29.37%	64.23%
14.5	Multiple choice	Q11	13	61.54%	50.64%	25.00%	2.00%		54.15%	75.93%
14.6	Multiple choice	42	18	88.89%	32.34%	25.00%	2.00%		-12.55%	-30.34%
14.7	Multiple choice	45	13	53.85%	51.89%	25.00%	2.00%		27.66%	35.57%
14.8	Multiple choice	39	15	100.00%	0.00%	25.00%	2.00%			
14.9	Multiple choice	49	13	38.46%	50.64%	25.00%	2.00%		1.18%	1.61%
14.10	Multiple choice	41	17	94.12%	24.25%	25.00%	2.00%		14.56%	35.85%
14.11	Multiple choice	50	14	71.43%	46.88%	25.00%	2.00%		2.90%	3.98%
14.12	Multiple choice	48	16	93.75%	25.00%	25.00%	2.00%		14.74%	46.31%
14.13	Multiple choice	46	13	69.23%	48.04%	25.00%	2.00%		-45.91%	-65.96%

Q#	Question type	Question name	Attempts	Facility index	Standard deviation	Random guess score	Intended weight	Effective weight	Discrimination index	Discriminative efficiency
14.14	Multiple choice	43	11	81.82%	40.45%	25.00%	2.00%		46.59%	78.64%
14.15	Multiple choice	47	12	75.00%	45.23%	25.00%	2.00%		4.03%	6.54%
14.16	Multiple choice	38	15	73.33%	45.77%	25.00%	2.00%		33.02%	57.14%
14.17	Multiple choice	37	14	50.00%	51.89%	25.00%	2.00%		67.71%	85.37%
15	Random	Random question	26	35.58%	29.30%		8.00%	7.40%	47.76%	50.04%
16	Random	Random question	26	36.54%	32.58%		8.00%	9.00%	70.41%	73.34%
16.1	Essay	Q11	1	75.00%		0.00%	8.00%			
16.2	Essay	Q12	8	53.13%	33.91%	0.00%	8.00%		88.59%	91.11%
16.3	Essay	Q13	7	39.29%	28.35%	0.00%	8.00%		82.16%	100.00%
16.4	Essay	Q14	7	10.71%	13.36%	0.00%	8.00%		22.34%	26.32%
16.5	Essay	Q15	6	45.83%	33.23%	0.00%	8.00%		89.09%	100.00%
16.6	Essay	Q16	11	34.09%	34.05%	0.00%	8.00%		71.95%	77.89%
16.7	Essay	Q17	5	40.00%	33.54%	0.00%	8.00%		75.24%	81.03%
16.8	Essay	Q18	7	25.00%	20.41%	0.00%	8.00%		41.03%	47.83%
17	Random	Random question	26	92.31%	27.17%		2.00%		-18.18%	-44.44%
18	Random	Random question	26	84.62%	36.79%		2.00%	2.53%	17.46%	32.67%
19	Random	Random question	26	92.31%	27.17%		2.00%	1.67%	9.61%	23.26%
20	Random	Random question	26	84.62%	36.79%		2.00%	0.90%	-1.90%	-3.59%
21	Random	Random question	26	88.46%	32.58%		2.00%	2.65%	23.24%	48.13%

Q#	Question type	Question name	Attempts	Facility index	Standard deviation	Random guess score	Intended weight	Effective weight	Discrimination index	Discriminative efficiency
22	Random	Random question	26	88.46%	32.58%		2.00%	2.94%	29.57%	61.10%
23	Random	Random question	26	92.31%	27.17%		2.00%	2.28%	20.88%	48.17%
24	Random	Random question	26	84.62%	36.79%		2.00%	1.67%	4.98%	9.13%
25	Random	Random question	26	84.62%	36.79%		2.00%		-16.87%	-31.26%
26	Random	Random question	26	80.77%	40.19%		2.00%	2.05%	8.16%	14.21%
26.1	Multiple choice	Q12	11	100.00%	0.00%	25.00%	2.00%			
26.2	Multiple choice	Q13	12	58.33%	51.49%	25.00%	2.00%		12.79%	19.46%
26.3	Multiple choice	Q14	17	100.00%	0.00%	25.00%	2.00%			
26.4	Multiple choice	Q15	13	76.92%	43.85%	25.00%	2.00%		51.37%	82.09%
26.5	Multiple choice	Q33	13	92.31%	27.74%	25.00%	2.00%		33.74%	79.53%
26.6	Multiple choice	Q35	11	100.00%	0.00%	25.00%	2.00%			
26.7	Multiple choice	Q30	16	87.50%	34.16%	25.00%	2.00%		26.55%	50.68%
26.8	Multiple choice	Q29	16	75.00%	44.72%	25.00%	2.00%		22.83%	39.13%
26.9	Multiple choice	Q28	13	84.62%	37.55%	25.00%	2.00%		16.64%	29.52%
26.10	Multiple choice	Q27	9	88.89%	33.33%	25.00%	2.00%		-12.50%	-33.78%

Q#	Question type	Question name	Attempts	Facility index	Standard deviation	Random guess score	Intended weight	Effective weight	Discrimination index	Discriminative efficiency
26.11	Multiple choice	Q32	18	100.00%	0.00%	25.00%	2.00%			
26.12	Multiple choice	Q34	15	60.00%	50.71%	25.00%	2.00%		-0.71%	-0.99%
26.13	Multiple choice	Q31	10	90.00%	31.62%	25.00%	2.00%		-35.74%	-80.95%
26.14	Multiple choice	Q36	11	90.91%	30.15%	25.00%	2.00%		33.92%	64.97%
26.15	Multiple choice	Q16	14	100.00%	0.00%	25.00%	2.00%			
26.16	Multiple choice	Q17	7	57.14%	53.45%	25.00%	2.00%		1.09%	1.34%
26.17	Multiple choice	Q18	9	100.00%	0.00%	25.00%	2.00%			
26.18	Multiple choice	Q19	8	100.00%	0.00%	25.00%	2.00%			
26.19	Multiple choice	Q20	14	85.71%	36.31%	25.00%	2.00%		21.58%	41.32%
26.20	Multiple choice	Q21	14	100.00%	0.00%	25.00%	2.00%			
26.21	Multiple choice	Q22	12	100.00%	0.00%	25.00%	2.00%			
26.22	Multiple choice	Q23	15	100.00%	0.00%	25.00%	2.00%			
26.23	Multiple choice	Q24	7	28.57%	48.80%	25.00%	2.00%		-14.01%	-17.37%
26.24	Multiple choice	Q25	17	76.47%	43.72%	25.00%	2.00%		-23.51%	-38.78%
26.25	Multiple choice	Q26	10	100.00%	0.00%	25.00%	2.00%			

Q#	Question type	Question name	Attempts	Facility index	Standard deviation	Random guess score	Intended weight	Effective weight	Discrimination index	Discriminative efficiency
27	Random	Random question	26	28.85%	26.17%		8.00%	7.96%	69.71%	73.13%
27.1	Essay	Q25	7	17.86%	18.90%	0.00%	8.00%		26.06%	28.04%
27.2	Essay	Q3	9	27.78%	31.73%	0.00%	8.00%		70.55%	72.41%
27.3	Essay	Q4	10	37.50%	24.30%	0.00%	8.00%		92.02%	97.14%
28	Random	Random question	26	92.31%	27.17%		2.00%		-8.98%	-20.93%
29	Random	Random question	26	80.77%	40.19%		2.00%		-18.11%	-30.63%
29.1	Multiple choice	Q12	11	100.00%	0.00%	25.00%	2.00%			
29.2	Multiple choice	Q13	12	58.33%	51.49%	25.00%	2.00%		12.79%	19.46%
29.3	Multiple choice	Q14	17	100.00%	0.00%	25.00%	2.00%			
29.4	Multiple choice	Q15	13	76.92%	43.85%	25.00%	2.00%		51.37%	82.09%
29.5	Multiple choice	Q33	13	92.31%	27.74%	25.00%	2.00%		33.74%	79.53%
29.6	Multiple choice	Q35	11	100.00%	0.00%	25.00%	2.00%			
29.7	Multiple choice	Q30	16	87.50%	34.16%	25.00%	2.00%		26.55%	50.68%
29.8	Multiple choice	Q29	16	75.00%	44.72%	25.00%	2.00%		22.83%	39.13%
29.9	Multiple choice	Q28	13	84.62%	37.55%	25.00%	2.00%		16.64%	29.52%
29.10	Multiple choice	Q27	9	88.89%	33.33%	25.00%	2.00%		-12.50%	-33.78%
29.11	Multiple choice	Q32	18	100.00%	0.00%	25.00%	2.00%			

Q#	Question type	Question name	Attempts	Facility index	Standard deviation	Random guess score	Intended weight	Effective weight	Discrimination index	Discriminative efficiency
29.12	Multiple choice	Q34	15	60.00%	50.71%	25.00%	2.00%		-0.71%	-0.99%
29.13	Multiple choice	Q31	10	90.00%	31.62%	25.00%	2.00%		-35.74%	-80.95%
29.14	Multiple choice	Q36	11	90.91%	30.15%	25.00%	2.00%		33.92%	64.97%
29.15	Multiple choice	Q16	14	100.00%	0.00%	25.00%	2.00%			
29.16	Multiple choice	Q17	7	57.14%	53.45%	25.00%	2.00%		1.09%	1.34%
29.17	Multiple choice	Q18	9	100.00%	0.00%	25.00%	2.00%			
29.18	Multiple choice	Q19	8	100.00%	0.00%	25.00%	2.00%			
29.19	Multiple choice	Q20	14	85.71%	36.31%	25.00%	2.00%		21.58%	41.32%
29.20	Multiple choice	Q21	14	100.00%	0.00%	25.00%	2.00%			
29.21	Multiple choice	Q22	12	100.00%	0.00%	25.00%	2.00%			
29.22	Multiple choice	Q23	15	100.00%	0.00%	25.00%	2.00%			
29.23	Multiple choice	Q24	7	28.57%	48.80%	25.00%	2.00%		-14.01%	-17.37%
29.24	Multiple choice	Q25	17	76.47%	43.72%	25.00%	2.00%		-23.51%	-38.78%
29.25	Multiple choice	Q26	10	100.00%	0.00%	25.00%	2.00%			

Model response		Partial credit		Count		Frequency	
A system that runs on a single powerful computer		0.00%				0.00%	

Model response	Partial credit	Count	Frequency
A collection of independent computers that appears to users as a single system	100.00%	8	100.00%
A system that only supports parallel processing	0.00%		0.00%
A system with no network communication	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Resource sharing	0.00%		0.00%
Scalability	0.00%		0.00%
Centralized control	100.00%	2	66.67%
Fault tolerance	0.00%	1	33.33%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
To increase network speed	0.00%		0.00%
B. To hide the complexity of the system from users	100.00%	8	100.00%
To prevent system failures	0.00%		0.00%
To reduce hardware costs	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
To eliminate network failures	0.00%		0.00%
To enable communication between distributed processes	100.00%	7	100.00%
To ensure centralized control	0.00%		0.00%
To reduce hardware costs	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
A type of local storage system	0.00%		0.00%
Delivery of computing services over the Internet	100.00%	15	100.00%

Model response	Partial credit	Count	Frequency
A networking protocol	0.00%		0.00%
A programming language	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Fixed capacity	0.00%	2	16.67%
Manual resource allocation	0.00%	1	8.33%
On-demand self-service	100.00%	9	75.00%
Single-user access	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
SaaS	0.00%		0.00%
PaaS	0.00%	5	41.67%
IaaS	100.00%	7	58.33%
DaaS	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
High upfront hardware cost	0.00%		0.00%
Limited scalability	0.00%		0.00%
Pay-as-you-use pricing	100.00%	10	90.91%
No Internet dependency	0.00%	1	9.09%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Resource pooling	0.00%	1	7.69%
Scalability	0.00%	1	7.69%
Security concerns	100.00%	8	61.54%
On-demand access	0.00%	3	23.08%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
To reduce network speed	0.00%		0.00%
To increase data availability and fault tolerance	100.00%	16	88.89%

Model response	Partial credit	Count	Frequency
To eliminate consistency issues	0.00%	2	11.11%
To reduce storage costs	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Eventual consistency	0.00%	3	23.08%
Weak consistency	0.00%	2	15.38%
Strong consistency	100.00%	7	53.85%
Causal consistency	0.00%	1	7.69%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Are always identical	0.00%		0.00%
Never synchronize	0.00%		0.00%
May temporarily differ but eventually become consistent	100.00%	15	100.00%
Update only once	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
ACID theorem	0.00%	6	46.15%
BASE model	0.00%	1	7.69%
CAP theorem	100.00%	5	38.46%
Brewer's law	0.00%	1	7.69%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
The ability to prevent all failures	0.00%	1	5.88%
The ability to continue operation despite failures	100.00%	16	94.12%
The ability to increase system speed	0.00%		0.00%
The ability to reduce system cost	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Timing fault	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Byzantine fault	0.00%	2	14.29%
Crash fault	100.00%	10	71.43%
Omission fault	0.00%	2	14.29%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Checkpointing	0.00%	1	6.25%
Replication	100.00%	15	93.75%
Load balancing	0.00%		0.00%
Scheduling	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Crash fault	0.00%		0.00%
Omission fault	0.00%	3	23.08%
Timing fault	0.00%	1	7.69%
Byzantine fault	100.00%	9	69.23%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
To stop system execution	0.00%		0.00%
To save system state for recovery	100.00%	9	81.82%
To increase network traffic	0.00%		0.00%
To remove failed nodes	0.00%	2	18.18%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Replication	0.00%	2	16.67%
Load balancing	0.00%	1	8.33%
Failover	100.00%	9	75.00%
Synchronization	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Security	0.00%		0.00%
Availability	100.00%	11	73.33%

Model response	Partial credit	Count	Frequency
User interface	0.00%		0.00%
Scalability	0.00%	4	26.67%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
The system stops responding	0.00%		0.00%
The system may return outdated data	100.00%	7	50.00%
Data replication stops permanently	0.00%	2	14.29%
All replicas are immediately synchronized	0.00%	5	35.71%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Running one operating system on one machine only	0.00%		0.00%
Sharing physical resources among multiple virtual machines	100.00%	11	100.00%
A cloud service model	0.00%		0.00%
A network security technique	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Operating system	0.00%	4	33.33%
Cloud provider	0.00%	1	8.33%
Hypervisor	100.00%	7	58.33%
Application server	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Public cloud	0.00%		0.00%
Private cloud	100.00%	17	100.00%
Hybrid cloud	0.00%		0.00%
Community cloud	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**

Model response	Partial credit	Count	Frequency
Internet speed	0.00%		0.00%
Hardware utilization	100.00%	10	76.92%
Data encryption	0.00%	1	7.69%
User authentication	0.00%	2	15.38%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Virtual hardware resources	0.00%		0.00%
Development platforms	0.00%	1	7.69%
Complete software delivered over the Internet	100.00%	12	92.31%
Network infrastructure	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Fixed hardware capacity	0.00%		0.00%
High upfront capital costs	0.00%		0.00%
Scalability on demand	100.00%	11	100.00%
Manual system updates	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Software as a Service (SaaS)	0.00%	1	6.25%
Platform as a Service (PaaS)	0.00%	1	6.25%
Infrastructure as a Service (IaaS)	100.00%	14	87.50%
Function as a Service (FaaS)	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
IaaS	0.00%		0.00%
PaaS	0.00%	2	12.50%
SaaS	100.00%	12	75.00%
Hybrid Cloud	0.00%	2	12.50%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**

Model response	Partial credit	Count	Frequency
SaaS	0.00%	1	7.69%
PaaS	0.00%		0.00%
IaaS	100.00%	11	84.62%
Private Cloud	0.00%	1	7.69%
[No response]	0.00%		0.00%
Model response	Partial credit	Count	Frequency
SaaS	0.00%		0.00%
PaaS	0.00%	1	11.11%
IaaS	100.00%	8	88.89%
Public Cloud	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	Partial credit	Count	Frequency
High security and full control	0.00%		0.00%
Limited scalability	0.00%		0.00%
Cost efficiency and scalability	100.00%	18	100.00%
Dedicated infrastructure	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	Partial credit	Count	Frequency
Automatic updates	0.00%	1	6.67%
High maintenance costs	0.00%	1	6.67%
Limited customization	100.00%	9	60.00%
On-premises installation	0.00%	4	26.67%
[No response]	0.00%		0.00%
Model response	Partial credit	Count	Frequency
Container engine	0.00%	1	10.00%
Hypervisor	100.00%	9	90.00%
Web server	0.00%		0.00%
Load balancer	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	Partial credit	Count	Frequency
VMware	0.00%	1	9.09%

Model response	Partial credit	Count	Frequency
Hyper-V	0.00%		0.00%
Docker	100.00%	10	90.91%
VirtualBox	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Public Cloud	0.00%		0.00%
Private Cloud	0.00%		0.00%
Hybrid Cloud	100.00%	14	100.00%
SaaS	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Containers require more resources	0.00%	2	28.57%
Containers include a full operating system	0.00%	1	14.29%
Containers share the host operating system kernel	100.00%	4	57.14%
Containers cannot be scaled	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Increased physical server space	0.00%		0.00%
Data breaches and unauthorized access	100.00%	9	100.00%
Excessive local backups	0.00%		0.00%
Reduced internet usage	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Slower startup time	0.00%		0.00%
Higher hardware cost	0.00%		0.00%
Lightweight and fast deployment	100.00%	8	100.00%
Limited portability	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**

Model response	Partial credit	Count	Frequency
SaaS	0.00%	1	7.14%
PaaS	100.00%	12	85.71%
IaaS	0.00%	1	7.14%
Private Cloud	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
To eliminate all on-premises hardware	0.00%		0.00%
To move applications and data to cloud-based infrastructure	100.00%	14	100.00%
To reduce employee workload	0.00%		0.00%
To increase network complexity	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Running applications without an operating system	0.00%		0.00%
Running multiple virtual machines on a single physical machine	100.00%	12	100.00%
Storing data in the cloud only	0.00%		0.00%
Sharing files between computers	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Public Cloud	0.00%		0.00%
Hybrid Cloud	0.00%		0.00%
Private Cloud	100.00%	15	100.00%
PaaS	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Private Cloud	0.00%		0.00%
Public Cloud	100.00%	2	28.57%
Hybrid Cloud	0.00%	1	14.29%
Community Cloud	0.00%	4	57.14%

Model response	Partial credit	Count	Frequency
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Refactoring	0.00%	1	5.88%
Replatforming	0.00%	2	11.76%
Rehosting (Lift-and-Shift)	100.00%	13	76.47%
Retiring	0.00%	1	5.88%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Public Cloud	0.00%		0.00%
Private Cloud	100.00%	10	100.00%
SaaS	0.00%		0.00%
PaaS	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Running one operating system on one machine only	0.00%		0.00%
Sharing physical resources among multiple virtual machines	100.00%	11	100.00%
A cloud service model	0.00%		0.00%
A network security technique	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Operating system	0.00%	4	33.33%
Cloud provider	0.00%	1	8.33%
Hypervisor	100.00%	7	58.33%
Application server	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Public cloud	0.00%		0.00%
Private cloud	100.00%	17	100.00%
Hybrid cloud	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Community cloud	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Internet speed	0.00%		0.00%
Hardware utilization	100.00%	10	76.92%
Data encryption	0.00%	1	7.69%
User authentication	0.00%	2	15.38%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Virtual hardware resources	0.00%		0.00%
Development platforms	0.00%	1	7.69%
Complete software delivered over the Internet	100.00%	12	92.31%
Network infrastructure	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Fixed hardware capacity	0.00%		0.00%
High upfront capital costs	0.00%		0.00%
Scalability on demand	100.00%	11	100.00%
Manual system updates	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Software as a Service (SaaS)	0.00%	1	6.25%
Platform as a Service (PaaS)	0.00%	1	6.25%
Infrastructure as a Service (IaaS)	100.00%	14	87.50%
Function as a Service (FaaS)	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
IaaS	0.00%		0.00%
PaaS	0.00%	2	12.50%
SaaS	100.00%	12	75.00%

Model response	Partial credit	Count	Frequency
Hybrid Cloud	0.00%	2	12.50%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
SaaS	0.00%	1	7.69%
PaaS	0.00%		0.00%
IaaS	100.00%	11	84.62%
Private Cloud	0.00%	1	7.69%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
SaaS	0.00%		0.00%
PaaS	0.00%	1	11.11%
IaaS	100.00%	8	88.89%
Public Cloud	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
High security and full control	0.00%		0.00%
Limited scalability	0.00%		0.00%
Cost efficiency and scalability	100.00%	18	100.00%
Dedicated infrastructure	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Automatic updates	0.00%	1	6.67%
High maintenance costs	0.00%	1	6.67%
Limited customization	100.00%	9	60.00%
On-premises installation	0.00%	4	26.67%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Container engine	0.00%	1	10.00%
Hypervisor	100.00%	9	90.00%
Web server	0.00%		0.00%
Load balancer	0.00%		0.00%

Model response	Partial credit	Count	Frequency
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
VMware	0.00%	1	9.09%
Hyper-V	0.00%		0.00%
Docker	100.00%	10	90.91%
VirtualBox	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Public Cloud	0.00%		0.00%
Private Cloud	0.00%		0.00%
Hybrid Cloud	100.00%	14	100.00%
SaaS	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Containers require more resources	0.00%	2	28.57%
Containers include a full operating system	0.00%	1	14.29%
Containers share the host operating system kernel	100.00%	4	57.14%
Containers cannot be scaled	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Increased physical server space	0.00%		0.00%
Data breaches and unauthorized access	100.00%	9	100.00%
Excessive local backups	0.00%		0.00%
Reduced internet usage	0.00%		0.00%
[No response]	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Slower startup time	0.00%		0.00%
Higher hardware cost	0.00%		0.00%
Lightweight and fast deployment	100.00%	8	100.00%

Model response	Partial credit	Count	Frequency
Limited portability	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
SaaS	0.00%	1	7.14%
PaaS	100.00%	12	85.71%
IaaS	0.00%	1	7.14%
Private Cloud	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
To eliminate all on-premises hardware	0.00%		0.00%
To move applications and data to cloud-based infrastructure	100.00%	14	100.00%
To reduce employee workload	0.00%		0.00%
To increase network complexity	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Running applications without an operating system	0.00%		0.00%
Running multiple virtual machines on a single physical machine	100.00%	12	100.00%
Storing data in the cloud only	0.00%		0.00%
Sharing files between computers	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Public Cloud	0.00%		0.00%
Hybrid Cloud	0.00%		0.00%
Private Cloud	100.00%	15	100.00%
PaaS	0.00%		0.00%
[No response]	0.00%		0.00%
Model response	**Partial credit**	**Count**	**Frequency**
Private Cloud	0.00%		0.00%

Model response	Partial credit	Count	Frequency
Public Cloud	100.00%	2	28.57%
Hybrid Cloud	0.00%	1	14.29%
Community Cloud	0.00%	4	57.14%
[No response]	0.00%		0.00%
Model response	Partial credit	Count	Frequency
Refactoring	0.00%	1	5.88%
Replatforming	0.00%	2	11.76%
Rehosting (Lift-and-Shift)	100.00%	13	76.47%
Retiring	0.00%	1	5.88%
[No response]	0.00%		0.00%
Model response	Partial credit	Count	Frequency
Public Cloud	0.00%		0.00%
Private Cloud	100.00%	10	100.00%
SaaS	0.00%		0.00%
PaaS	0.00%		0.00%
[No response]	0.00%		0.00%