

INDIAN SCHOOL MUSCAT

NAME OF THE EXAMINATION	FIRST PERIODIC TEST	CLASS: XI
DATE OF EXAMINATION	13-09-2022	SUBJECT: APPLIED MATHEMATICS
TYPE: DESCRIPTIVE	MARKING SCHEME	

SET	Q.NO	VALUE POINTS	MARK					
A	1	2. 6990	1					
	2	5/6	1					
	3	4.5 cm	1					
	4	38	1					
	5	18 km/hr	1					
	6	$2^0 + 2 + 2^3 + 2^5 + 2^6 = 107$	2					
	7	$A = (30^\circ \times H) - (\frac{11}{2} \times t)$ $= (30^\circ \times 7) - (\frac{11}{2} \times 20)$ $= 100^\circ$	1 1					
	8	Work done by A in one day = 1/10 Work done by B in one day = 1/5 Work done together in a day = 3/10 Time taken to complete the work together = 10/3 days	1/2 1/2 1/2 1/2					
	9	<table border="1"><tr><td>Diya</td><td>Priya</td><td>Shiva</td><td>Kavya</td><td>Riya</td></tr></table> (i) Priya and Kavya (ii) one	Diya	Priya	Shiva	Kavya	Riya	1 1 1
Diya	Priya	Shiva	Kavya	Riya				
	10	$x = (1.06)^4$ $\log x = 4 \times \log (1.06)$ $= 4 \times 0.0253$ $= 0.1012$ $x = \text{antilog} (0.1012)$ $= 1.263$	1 1/2 1/2 1/2 1/2					
	11	4 th June 2002 => Tuesday	3					
B	1	12	1					
	2	38	1					
	3	25 m/s	1					
	4	3 units	1					
	5	2.6021	1					
	6	Work done by A in one day = 1/20	1/2					

		Work done by B in one day = 1/15 Work done together in a day = 7/60 Time taken to complete the work together = 60/7 days	1/2 1/2 1/2					
	7	(45) ₁₀ = (101101) ₂	2					
	8	T = $\frac{2}{11}(H \times 30^\circ \pm A)$ = $\frac{2}{11}(3 \times 30^\circ + 0^\circ)$ = 16 min 21 sec ∴ time = 3:16':21''	1/2 1/2 1/2 1/2					
	9	28 th May 2006 is a Sunday.	2					
	10	<table border="1"><tr><td>Maria</td><td>Reet</td><td>Rani</td><td>Siya</td><td>Bubbly</td></tr></table> (i) Rani (ii) Maria	Maria	Reet	Rani	Siya	Bubbly	1 1 1
Maria	Reet	Rani	Siya	Bubbly				
	11	x = (1.05) ⁵ log x = 5 x log (1.05) = 5 x 0.0212 = 0.106 x = antilog (0.106) = 1.276	1 1/2 1/2 1/2 1/2					
C	1	1:2:3	1					
	2	24	1					
	3	1.4771	1					
	4	(10/9) m/s	1					
	5	6	1					
	6	A = (30° × H) – ($\frac{11}{2} \times t$) = (30° × 10) – ($\frac{11}{2} \times 10$) = 245° ∴ Acute angle is 360° – 245° = 115°	1 1/2 1/2					
	7	Work done by A in one day = 1/15 Work done by B in one day = 1/10 Work done together in a day = 1/6 Time taken to complete the work together = 6 days	1/2 1/2 1/2 1/2					
	8	2 ⁰ + 2 + 2 ³ + 2 ⁴ + 2 ⁶ = 91	2					
	9	17 th July 2003 is a Thursday.	3					
	10	x = (1.04) ³ ⇒ log x = 3 x log (1.04) = 3 x 0.0170 = 0.051 x = antilog (0.051) = 1.125	1 1/2_1/2 1/2+1/2					
	11	<table border="1"><tr><td>Vinod</td><td>Arun</td><td>Deepak</td><td>Rajiv</td><td>Karan</td></tr></table> (i) Arun and Rajiv (ii) Three	Vinod	Arun	Deepak	Rajiv	Karan	1 1 1
Vinod	Arun	Deepak	Rajiv	Karan				