



Kerala Public Enterprises (Selection and Recruitment) Board

Opposite KELTRON, Vellayambalam, Thiruvananthapuram

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Version: B

Name of Examination: Mechanical Engineering

Date: 13/09/2026

Written examination for:

047-2025 Senior Engineer - Maintenance (Executive Trainee -Mechanical) -Travancore
Cochin Chemicals Limited

PROVISIONAL ANSWER KEY

Sl No		Answer
1	A	Waste elimination
2	A	Eliminate random fluctuations
3	A	Engage and disengage power
4	A	1 degree of freedom
5	D	2.0-4.0%
6	B	Polycarbonate
7	A	$\{bd\}^{3/12}$
8	C	0.3
9	A	Hungarian method
10	A	Feed molten metal during solidification
11	A	Negligible
12	A	Pressure falls below vapour pressure
13	B	Source and sink temperatures
14	B	Increase accuracy and productivity
15	C	Average temperature of heat addition is higher
16	B	Increase surface area for convection
17	C	Equally in all directions
18	C	Hoop stress
19	C	Analytical dynamics
20	C	Zero

21	B	Pitot tube
22	A	Brittle
23	B	Process variability
24	A	Decrease in notch radius
25	C	Impact loading
26	C	Al-Mg-Si alloys
27	B	Tool change
28	B	Strip speed > roll speed
29	C	Transient conduction
30	C	Sudden increase in strain without increase in stress
31	A	It moves with constant velocity
32	B	Vibration
33	B	Control speed
34	B	Copper and Zinc
35	B	Centre
36	C	Deburring
37	A	Pattern
38	C	Greater than unity
39	B	Darcy-Weisbach equation
40	B	Force and displacement
41	B	Smaller processing times
42	B	Constant selling price
43	C	Cellular layout
44	A	Symmetrical
45	B	Optimize transport and transfer between plants
46	B	Minimizes flow time
47	B	Proximity to raw materials
48	B	Only planar mechanisms
49	B	shaft speed equals natural frequency of lateral vibration
50	C	Polymers
51	C	Double the static stress

52	B	$pD/2t$
53	A	$E=2G(1+\nu)$
54	D	twisting moment is 1/3 greater than that for full load
55	C	Principal stresses and maximum shear
56	B	0.4
57	B	Satisfy non-negativity and constraints
58	B	Laser interferometry and probing
59	B	Complex geometry fabrication
60	C	Oxidizing flame
61	B	Thin-walled cups
62	A	All pressure drop occurs in nozzle
63	C	$Z=1$
64	A	k/pC_p
65	B	Pressure increases in direction of flow
66	B	Parabolic
67	A	$N \cdot s/m^2$
68	B	L^2
69	B	$4.9m/s^2$
70	A	Delay without affecting project completion
71	B	Eliminate waste
72	B	Fatigue life
73	C	Roller bearing
74	B	Ratio of last to first gear teeth
75	B	Jominy test
76	B	Heating below melting point
77	B	Chromium
78	B	Stress
79	B	Poisson's ratio
80	D	$Length^4$
81	D	Both A & B
82	A	Economic Order Quantity

83	A	Speed and tool life
84	A	RPM
85	A	Calorimeter
86	A	In nozzle
87	C	Area and $\Delta \{T\}$
88	C	Brayton
89	A	Parabolic
90	B	Increase in compression ratio
91	C	Zero
92	A	Annual consumption value
93	A	Symmetrical
94	B	Continuous improvement
95	B	Scheduling and control
96	B	Total cost = Total revenue
97	A	2300
98	A	Law of energy conservation
99	C	Top and bottom points
100	B	Zero

NB: - Complaints regarding the Provisional Answer Key should be submitted by candidates to the e-mail (kpesrb@gmail.com) of the Board within a period of 4 days from the date of publication of this Provisional Answer Key (both days included) ie. By 11.59 PM on 17/09/2026. Final Answer Key will be published in the official website of KPESRB.

Shine A Haq
Secretary