



Kerala Public Enterprises (Selection and Recruitment) Board

Opposite KELTRON, Vellayambalam, Thiruvananthapuram

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Version: D

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	D	k/pCp
2	D	Satisfy non-negativity and constraints
3	D	Speed and tool life
4	B	It moves with constant velocity
5	A	Minimizes flow time
6	A	0.4
7	A	Proximity to raw materials
8	C	Length ^{^4}
9	D	Fatigue life
10	D	Source and sink temperatures
11	D	pD/2t
12	C	Roller bearing
13	B	Decrease in notch radius
14	B	Symmetrical
15	B	Sudden increase in strain without increase in stress
16	B	Pressure falls below vapour pressure
17	A	Increase accuracy and productivity
18	C	Force and displacement
19	C	2300
20	A	Transient conduction

21	D	Copper and Zinc
22	D	Engage and disengage power
23	B	Zero
24	C	Constant selling price
25	D	Top and bottom points
26	D	Brittle
27	A	Principal stresses and maximum shear
28	B	Both A & B
29	D	Hoop stress
30	C	Centre
31	D	Darcy-Weisbach equation
32	A	Greater than unity
33	A	Double the static stress
34	C	Heating below melting point
35	D	twisting moment is 1/3 greater than that for full load
36	A	$Z=1$
37	D	Control speed
38	A	Parabolic
39	D	Average temperature of heat addition is higher
40	C	In nozzle
41	B	Annual consumption value
42	B	Oxidizing flame
43	C	Delay without affecting project completion
44	C	Optimize transport and transfer between plants
45	C	1 degree of freedom
46	A	Increase surface area for convection
47	B	Feed molten metal during solidification
48	D	Continuous improvement
49	A	Deburring
50	A	Parabolic
51	D	Thin-walled cups

52	B	Stress
53	A	Pattern
54	D	Impact loading
55	C	Ratio of last to first gear teeth
56	C	Pressure increases in direction of flow
57	A	0.3
58	A	Increase in compression ratio
59	C	Tool change
60	B	Analytical dynamics
61	A	shaft speed equals natural frequency of lateral vibration
62	C	Process variability
63	A	Pitot tube
64	B	Total cost = Total revenue
65	A	Brayton
66	A	Strip speed > roll speed
67	C	Chromium
68	B	$N \cdot s/m^2$
69	B	$4.9m/s^2$
70	D	Vibration
71	A	Cellular layout
72	D	Smaller processing times
73	D	Scheduling and control
74	A	Only planar mechanisms
75	D	All pressure drop occurs in nozzle
76	A	Negligible
77	D	Complex geometry fabrication
78	B	2.0-4.0%
79	D	L^2
80	A	Al-Mg-Si alloys
81	D	Eliminate random fluctuations
82	B	Symmetrical

83	D	$E=2G(1+\nu)$
84	D	Polycarbonate
85	A	Equally in all directions
86	D	Zero
87	D	Calorimeter
88	B	Economic Order Quantity
89	C	Area and $\Delta \{T\}$
90	A	Poisson's ratio
91	C	Waste elimination
92	D	RPM
93	D	Hungarian method
94	D	Zero
95	B	Laser interferometry and probing
96	D	Polymers
97	A	Eliminate waste
98	B	$\{bd\}^{3/12}$
99	B	Jominy test
100	D	Law of energy conservation

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