



Kerala Public Enterprises (Selection and Recruitment) Board

Opposite KELTRON, Vellayambalam, Thiruvananthapuram

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Version: A

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	B	Zero
2	C	Top and bottom points
3	A	Law of energy conservation
4	A	2300
5	B	Total cost = Total revenue
6	B	Scheduling and control
7	B	Continuous improvement
8	A	Symmetrical
9	A	Annual consumption value
10	C	Zero
11	B	Increase in compression ratio
12	A	Parabolic
13	C	Brayton
14	C	Area and $\Delta \{T\}$
15	A	In nozzle
16	A	Calorimeter
17	A	RPM
18	A	Speed and tool life
19	A	Economic Order Quantity
20	D	Both A &B

21	D	Length $\propto L^4$
22	B	Poisson's ratio
23	B	Stress
24	B	Chromium
25	B	Heating below melting point
26	B	Jominy test
27	B	Ratio of last to first gear teeth
28	C	Roller bearing
29	B	Fatigue life
30	B	Eliminate waste
31	A	Delay without affecting project completion
32	B	4.9m/s^2
33	B	L^2
34	A	$\text{N} \cdot \text{s/m}^2$
35	B	Parabolic
36	B	Pressure increases in direction of flow
37	A	k/pC_p
38	C	$Z=1$
39	A	All pressure drop occurs in nozzle
40	B	Thin-walled cups
41	C	Oxidizing flame
42	B	Complex geometry fabrication
43	B	Laser interferometry and probing
44	B	Satisfy non-negativity and constraints
45	B	0.4
46	C	Principal stresses and maximum shear
47	D	twisting moment is $1/3$ greater than that for full load
48	A	$E=2G(1+\nu)$
49	B	$pD/2t$
50	C	Double the static stress
51	C	Polymers

52	B	shaft speed equals natural frequency of lateral vibration
53	B	Only planar mechanisms
54	B	Proximity to raw materials
55	B	Minimizes flow time
56	B	Optimize transport and transfer between plants
57	A	Symmetrical
58	C	Cellular layout
59	B	Constant selling price
60	B	Smaller processing times
61	B	Force and displacement
62	B	Darcy-Weisbach equation
63	C	Greater than unity
64	A	Pattern
65	C	Deburring
66	B	Centre
67	B	Copper and Zinc
68	B	Control speed
69	B	Vibration
70	A	It moves with constant velocity
71	C	Sudden increase in strain without increase in stress
72	C	Transient conduction
73	B	Strip speed > roll speed
74	B	Tool change
75	C	Al-Mg-Si alloys
76	C	Impact loading
77	A	Decrease in notch radius
78	B	Process variability
79	A	Brittle
80	B	Pitot tube
81	C	Zero
82	C	Analytical dynamics

83	C	Hoop stress
84	C	Equally in all directions
85	B	Increase surface area for convection
86	C	Average temperature of heat addition is higher
87	B	Increase accuracy and productivity
88	B	Source and sink temperatures
89	A	Pressure falls below vapour pressure
90	A	Negligible
91	A	Feed molten metal during solidification
92	A	Hungarian method
93	C	0.3
94	A	$\sqrt[3]{12}$
95	B	Polycarbonate
96	D	2.0-4.0%
97	A	1 degree of freedom
98	A	Engage and disengage power
99	A	Eliminate random fluctuations
100	A	Waste elimination

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