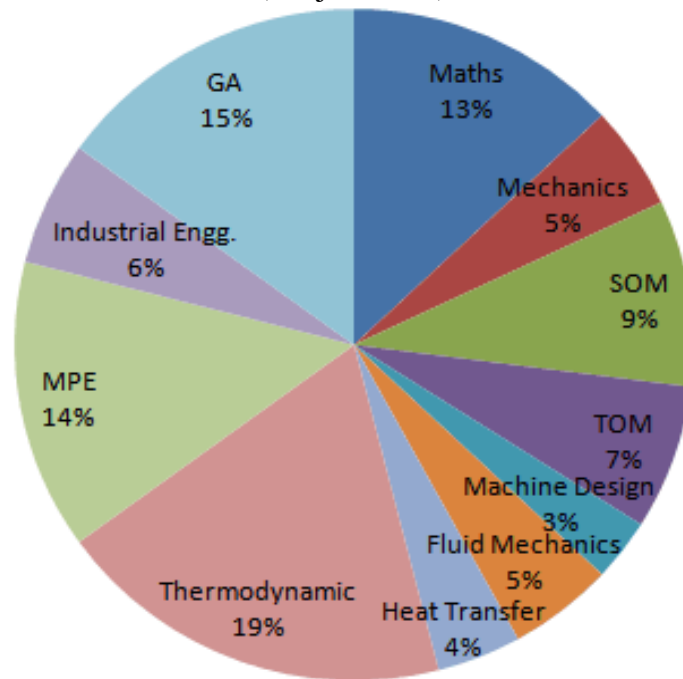


Analysis of GATE 2011 – Mechanical Engineering paper

Analysis of GATE 2011 – Mechanical Engineering paper
(Subject Wise)



SUBJECTS	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Maths	5,8,12,15,13, 29, 39, 40,44,	5(1),8(1),12(1),15(1),13(1), 29(2), 39(2), 40(2),44(2)	13
Mechanics	4,30,41	4(1),30(2),41(2)	5
SOM	3, 16, 22, 46, 54,55	3(1), 16(1), 22(1), 46(2), 54(2),55(2)	9
TOM	21, 31,38,42	21(1), 31(2),38(2),42(2)	7
Machine Design	9,43	9(1),43(2)	3
Fluid Mechanics	24, 36,47	24(1), 36(2),47(2)	5
Heat Transfer	11, 23,33	11(1), 23(1),33(2)	4
Thermodynamics	10,17, 25, 32,34, 35,45, 50,51, 52,53	10(1),17(1), 25(1), 32(2),34(2), 35(2),45(2), 50(2),51(2), 52(2),53(2)	19
MPE	1, 2, 18,19, 14, 20, 26, 27,28,37	1(1), 2(1), 18(1),19(1), 14(1), 20(1), 26(2), 27(2),28(2),37(2)	14
Industrial Engg.	6,7,48,49	6(1),7(1),48(2),49(2)	6
GA	56,57,58,59,60,61,62,63,64,65	56(1),57(1),58(1),59(1),60(1),61(2),62(2),63(2),64(2),65(2)	15
SUM TOTAL			100

Mathematics in Mechanical Engineering

Topic name	QUESTION	MARKS RELATED TO THAT	TOTAL
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	NO	QUESTIONS	MARKS
Linear Algebra	13, 29	13-(1), 29-(2)	3
Probability & distribution	39	39-(2)	2
Numerical Method	44	44-(2)	2
Calculus	5,12,15	5-(1), 12-(1),15-(1)	3
Differential Equations	40	40-(2)	2
Complex Variables	8	8-(1)	1
Laplace Transforms			

Engineering Mechanics in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
FBD & Equilibrium	30	30-(2)	2
Trusses & Frames			
Kinematics & Dynamics of particles & rigid bodies in plane motion	4,41	4(1),41-(2)	3

Strength of Materials(SOM) in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Stress & Strain			
SFD & BMD	22	22-(1)	1
Bending & Shear Stress			
Deflection of beams	54,55	54-(2),55-(2)	4
Torsion of circular shafts	46	46-(2)	2
Mohr's circle			
Strain Energy Methods			
Euler's Theory of columns	16	16-(1)	1
Thick and Thin Cylinder	3	3-(1)	1

Theory of Machines(TOM) in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Mechanism	21,42	21-(1),42-(2)	3
Gear Trains			
Flywheels			
Vibrations	31,38	31-(2),38-(2)	4

Machine Design in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Failure Theories	9	9-(1)	1
Fatigue			
Design of bolted, riveted & welded joints			
Design of shafts, gears & Bearings	43	43-(2)	2
Design of Brakes & Clutches			

Fluid Mechanics in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Fluid properties	24	24-(1)	1
Fluid statics			
Fluid Kinematics	47	47-(2)	2
Fluid Dynamics			
Boundary layer	36	36-(2)	2
Hydraulic Machines			

Heat Transfer in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Conduction	11,33	11-(1)	1
Convection			
Radiation			
Heat Exchanger	23	23-(1)	1

Thermodynamics & Power Engineering in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Basic thermodynamics	10,17,50,51	10-(1),17-(1),50-(2),51-(2)	6
Properties of pure substances			
Irreversibility & Availability			

Work, heat & entropy			
Psychrometrics	25	25-(1)	1
Power Engineering	32,34,45,52,53	32-(2),34-(2),45-(2),52-(2),53-(2)	10
Refrigeration & Air-conditioning			
I.C. Engines	35	35-(2)	2

Manufacturing Process & Engineering(MPE) in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Engineering Materials	1,19	1-(1),19-(1)	2
Metal casting	14,27	14-(1),27-(2)	3
Forming	20,37	20-(1),37-(2)	3
Joining	2	2-(1)	1
Machining & Machine Tool Operations	26,28	26-(2),28-(2)	4
Metrology & Inspections	18	18-(1)	1
Computer Integrated Manufacturing			

Industrial Engineering in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Production planning & control	6	6-(1)	1
Inventory Control			
Operations Research	7,48,49	7-(1),48-(2),49-(2)	5

General Aptitude (GA) in Mechanical Engineering

Topic name	QUESTION NO	MARKS RELATED TO THAT QUESTIONS	TOTAL MARKS
Numerical Ability	59,61,63,64,65	59-(1),61-(2),63-(2),64-(2),65-(2)	9
Verbal Ability	56,57,58,60,62	56-(1),57-(1),58-(1),60-(1),62-(2)	6