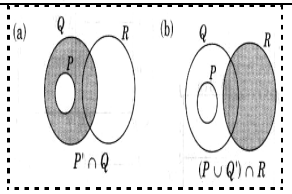
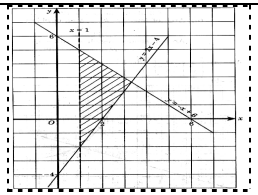
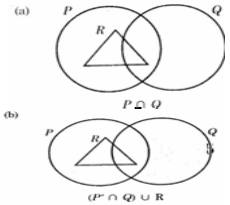
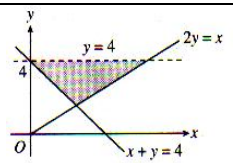
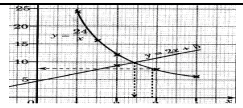
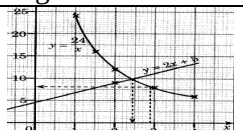
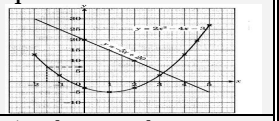
ANALYSIS of spm Mathematics [2006-2009] Paper 2

TOPIC	2006	2007	2008	2009	2010 TIPS
1.Simultaneous Linear Equations	$x + 2y = 6$ $\frac{3}{2}x - y = -7$	$g + 2h = 1$ $4g - 3h = -18$	$x + \frac{3}{2}y = -3$ $4x - y = 16$	$4x + y = 1$ $2x + 3y = 8$	**fraction**
2.Quadratic Equation- **Solve**	$\frac{3x(x-1)}{2} = x + 6.$	$4x^2 - 15 = -17x$	$x - 1 = \frac{6 - 3x}{2x}$	$x^2 + 4x - 9 = 2(x - 3)$	**fraction**
3.Sets / graph of function- shaded the region of the inequalities				 example	**Sets**
4.Mathematical Reasoning	1.Statement (True / False) by adding 'All' & Some' 2.converse –true/false 3.complete the premise in the argument .	1.Statement (True / False) by adding 'All' & Some' 2. complete the premise in the argument 3. induction 4. Implications– If …, then…	1.whether statement is true/false 2. Implications– If …, then… 3.deduction	1.whether statement is true/false 2.converse –true/false 3.complete the premise in the argument	1. whether statement is true/false 2. Implications– If …, then… 3.complete the premise in the argument 4. deduction
5.The Straight Line	1.parallel ,gradient same 2.equation +*x intercept*	1.parallel ,gradient same 2.equation +*x intercept*	1.parallel to *x* axis to find equation 2.equation +*y intercept*	1.parallel ,gradient same 2. parallel to *x* axis 3. *y intercept*	1.parallel to *x*/ y axis to find the equation 2. equation + *x intercept*
6.Probability II	***no diagram/table***	2 boxes -card	2 boxes -card	card	***with table*** find the a)both b)and
7.perimeter, area	1.Perimeter of the whole diagram, 2.Area of the shaded region	1.Perimeter of the whole diagram, 2.Area of the shaded region	1.Perimeter of this sector 2.Area of the shaded region	1.Perimeter of the shaded region , 2.Area of the shaded region	1.Perimeter of the whole diagram/ shaded region 2.Area of the shaded region
8.Volume	prism +pyramid	cylinder+prism	prism+cylinder	hemisphere+ removed cone	hemisphere+cone// pyramid +cuboid
9.Matrices	1.inverse 2.using matrices to find 2 unknown	1. M.I to inverse 2.using matrices to find 2 unknown	1.inverse 2.using matrices to find 2 unknown	1.inverse 2.using matrices to find 2 unknown	1. M.I to inverse 2.using matrices to find 2 unknown

10.Gradient and Area Under a Graph	speed-time 1. the uniform speed 2.find the value .. ,given distance is .. 3. average speed	distance –time 1.The length of time when stationary 2.average speed a)at the same location,find the distance b)the time	speed-time 1.the uniform speed 2.the rate of change of speed 3.find the value .. ,given distance is ..	speed-time 1.average speed 2.the rate of change of speed 3.find the value .. ,given distance is .. .	distance –time 1.The length of time when stationary 2.average speed a)at the same location,find the distance b)the time
11.Lines & Planes in 3 Dimensions	no mid point calculate the angle	with mid point calculate the angle	with mid point 1.name the angle 2.calculate the angle	with mid point 1.name the angle 2.calculate the angle	no mid point calculate the angle
12.Graph of function	 example	cubic function		cubic function	quadratic function 
13.Transformations III	a)withoutgraph, translation/rotation state the image b) i)describe reflection/ enlargement ii)area of the region	a)with graph rotation/reflection state the image b) i)describe rotation180 /enlargement ii) scale factor + area of the region	a)without graph rotation/reflection state the image b) i)describe reflection/ enlargement ii)area of the region	a)with graph translation/reflection state the image b) i)describe rotation/enlargement ii)area of the region	a)without graph rotation/translation state the image b) i)describe reflection/ enlargement ii)area of the region
14.Earth as a Sphere	diagram a)position of … b)the shortest distance c)latitude… d)time	no diagram a)longitude of..+the shortest distance b)latitude .. c)i)distance=…x 60x cos … ii) time	no diagram a)position of … b)the shortest distance c) distance=…x 60x cos … d) i)D=s x t ii) latitude of …	diagram a)latitude… b) distance=…x60 latitude… c) distance=…x 60x cos … d)speed	no diagram a)position of … b)the shortest distance c) distance=…x 60x cos … d) D=s x t
15. Statistics III	a)complete the table b) mean c) **A frequency polygon** d) one information	a) The modal class, mean b) complete the table c) **ogive** d) the third quartile e)refer to y axis and find the answer in x axis	a)complete the table b) mean c) **A frequency polygon** d) refer to y axis and find the answer in x axis	a)complete the table b) the size of the class interval c) mean d) **histrogram** e) one information	a) complete the table b)mean c) **ogive/ A frequency polygon** d) the interquartile e)refer to y axis and find the answer in x axis
16.Plans and elevations	a)the plan b)elevation x / y with a dotted line	a)the plan b)elevation x / y with a dotted line+a radius of a circle	a)the plan b)elevation x / y with a dotted line	a)the plan b)elevation x / y with a dotted line	a)the plan b)elevation x / y with a dotted line+a radius of a circle