

Complete Study Guide for Competitive Mathematics Examination

50 MCQs

All Solved

PPSC / FPSC Level

With Explanations

Q.1

Matrices & Determinants

PPSC / FPSC

If A and B are two matrices such that $AB = B$ and $BA = A$, then $A^2 + B^2$ equals:

(A) $A + B$ -- CORRECT ANSWER

(B) $2AB$

(C) $A^2 + B^2$

(D) None of these

EXPLANATION:

Since $AB = B$ and $BA = A$, both A and B are idempotent.

$A^2 = A.A = A(BA) = (AB)A = BA = A$. Similarly $B^2 = B$.

Therefore $A^2 + B^2 = A + B$.

Q.2

Quadratic Equations

PPSC / FPSC

The number of real solutions of $|x|^2 - 3|x| + 2 = 0$ is:

(A) 1

(B) 2

(C) 3

(D) 4 -- CORRECT ANSWER

EXPLANATION:

Let $|x| = t \geq 0$. Then $t^2 - 3t + 2 = 0 \Rightarrow (t-1)(t-2) = 0 \Rightarrow t = 1$ or $t = 2$.

$t=1$ gives $x = \pm 1$ (2 solutions). $t=2$ gives $x = \pm 2$ (2 solutions). Total = 4 real solutions.

Q.3	Logarithms	PPSC / FPSC
If $\log_2(\log_3(\log_2 x)) = 1$, then x equals:		
(A) 512 -- CORRECT ANSWER		
(B) 128		
(C) 256		
(D) 1024		
EXPLANATION: $\log_2(\log_3(\log_2 x)) = 1 \Rightarrow \log_3(\log_2 x) = 2 \Rightarrow \log_2 x = 9 \Rightarrow x = 2^9 = 512.$		
Q.4	Series & Sequences	PPSC / FPSC
The sum of $1 + 2.(1/3) + 3.(1/3)^2 + 4.(1/3)^3 + \dots$ to infinity is:		
(A) 3/2		
(B) 9/4 -- CORRECT ANSWER		
(C) 7/4		
(D) 5/3		
EXPLANATION: Using $\text{Sum} = 1/(1-x)^2$ for series $\text{Sum}[n.x^{n-1}]$. Here $x = 1/3$. $\text{Sum} = 1/(1 - 1/3)^2 = 1/(2/3)^2 = 9/4.$		
Q.5	Matrices & Determinants	PPSC / FPSC
The determinant of a skew-symmetric matrix of odd order is:		
(A) 1		
(B) 0 -- CORRECT ANSWER		
(C) -1		
(D) Cannot be determined		
EXPLANATION: For skew-symmetric A: $A^T = -A$. Taking determinants: $\det(A) = (-1)^n \cdot \det(A)$. For odd n: $\det(A) = -\det(A) \Rightarrow 2 \cdot \det(A) = 0 \Rightarrow \det(A) = 0.$		

Q.6

Quadratic Equations

PPSC / FPSC

If the roots of $x^2 - bx + c = 0$ are consecutive integers, then $b^2 - 4c$ equals:

(A) -2

(B) 3

(C) 2

(D) 1 -- CORRECT ANSWER

EXPLANATION:

Let roots be k and $k+1$. Then $b = 2k+1$ and $c = k(k+1)$.
 $b^2 - 4c = (2k+1)^2 - 4k(k+1) = 4k^2 + 4k + 1 - 4k^2 - 4k = 1$.

Q.7

Integral Calculus

PPSC / FPSC

Integral of $x.e^x dx$ equals:

(A) $e^x(x-1) + C$ -- CORRECT ANSWER

(B) $e^x(x+1) + C$

(C) $x.e^x + C$

(D) $e^x/x + C$

EXPLANATION:

Integration by parts: $\int [x.e^x dx] = x.e^x - \int [e^x dx]$
 $= x.e^x - e^x + C = e^x(x-1) + C$.

Q.8

Limits & Continuity

PPSC / FPSC

The value of $\lim_{x \rightarrow 0} (\sin x - x) / x^3$ is:

(A) 0

(B) 1/6

(C) -1/6 -- CORRECT ANSWER

(D) 1/3

EXPLANATION:

By Taylor series: $\sin x = x - x^3/6 + x^5/120 - \dots$
 $(\sin x - x)/x^3 = (-x^3/6 + \dots)/x^3 \rightarrow -1/6$ as $x \rightarrow 0$.

Q.9	Differential Calculus	PPSC / FPSC
If $f(x) = x^3 - 3x^2 + 3x - 1$, then $f(x)$ is:		
(A) Strictly increasing everywhere -- CORRECT ANSWER		
(B) Strictly decreasing		
(C) Neither increasing nor decreasing		
(D) Constant		
EXPLANATION: $f'(x) = 3x^2 - 6x + 3 = 3(x-1)^2 \geq 0$ for all x . $f'(x) = 0$ only at $x = 1$ (a single point). Hence f is strictly increasing.		

Q.10	Permutations & Combinations	PPSC / FPSC
The number of arrangements of letters of MATHEMATICS is:		
(A) 4989600 -- CORRECT ANSWER		
(B) 4989700		
(C) 4998600		
(D) 4998700		
EXPLANATION: MATHEMATICS has 11 letters: M(2), A(2), T(2), H, E, I, C, S. Arrangements = $11! / (2! \times 2! \times 2!) = 39916800 / 8 = 4989600$.		

Q.1
1

Probability

PPSC / FPSC

Probability a leap year chosen at random has 53 Sundays is:

(A) $1/7$

(B) $2/7$ -- CORRECT ANSWER

(C) $3/7$

(D) $4/7$

EXPLANATION:

Leap year = 366 days = 52 weeks + 2 extra days. The 2 extra days come from 7 possible pairs.
Sunday appears in 2 pairs: (Sat,Sun) and (Sun,Mon). $P = 2/7$.

Q.1
2

Conic Sections

PPSC / FPSC

The eccentricity of the ellipse $9x^2 + 5y^2 = 45$ is:

(A) $1/3$

(B) $2/3$ -- CORRECT ANSWER

(C) $2/\sqrt{5}$

(D) $\sqrt{4/9}$

EXPLANATION:

Divide by 45: $x^2/5 + y^2/9 = 1$. So $a^2 = 9$, $b^2 = 5$.
 $c^2 = a^2 - b^2 = 4 \Rightarrow c = 2$. Eccentricity $e = c/a = 2/3$.

Q.1
3

Complex Numbers

PPSC / FPSC

The sum $i + i^2 + i^3 + i^4 + \dots$ up to 100 terms is:

(A) 0 -- CORRECT ANSWER

(B) 1

(C) -1

(D) i

EXPLANATION:

Powers of i cycle every 4: $i, -1, -i, 1$. Sum of one full cycle = 0.
Since $100 = 4 \times 25$, total sum = $25 \times 0 = 0$.

Q.1
4

Functions

PPSC / FPSC

The domain of $f(x) = \sqrt{4 - x^2}$ is:

(A) $[0, 2]$

(B) $[-2, 2]$ -- CORRECT ANSWER

(C) $(-2, 2)$

(D) All real numbers

EXPLANATION:

Require $4 - x^2 \geq 0 \Rightarrow x^2 \leq 4 \Rightarrow -2 \leq x \leq 2$.
Domain = $[-2, 2]$ (closed interval including endpoints).

Q.1
5

Matrices & Determinants

PPSC / FPSC

If $\det(A) = 5$ for a 3×3 matrix A , then $\det(3A)$ equals:

(A) 15

(B) 45

(C) 135 -- CORRECT ANSWER

(D) 375

EXPLANATION:

For $n \times n$ matrix: $\det(kA) = k^n \cdot \det(A)$.

Here $n = 3$, $k = 3$: $\det(3A) = 3^3 \times 5 = 27 \times 5 = 135$.

Q.1
6

Binomial Theorem

PPSC / FPSC

The coefficient of x^5 in the expansion of $(1 + x)^{10}$ is:

(A) 210

(B) 252 -- CORRECT ANSWER

(C) 120

(D) 240

EXPLANATION:

Coefficient = $C(10, 5) = \frac{10!}{(5! \times 5!)} = \frac{(10 \times 9 \times 8 \times 7 \times 6)}{(5 \times 4 \times 3 \times 2 \times 1)} = 252$.

Q.1
7

Integral Calculus

PPSC / FPSC

The area bounded by $y = x^2$ and $y = x$ is:

(A) 1/6 -- CORRECT ANSWER

(B) 1/3

(C) 1/2

(D) 1/4

EXPLANATION:

Intersections: $x^2 = x \Rightarrow x = 0$ or 1 .

Area = $\int_0^1 (x - x^2) dx = [x^2/2 - x^3/3]$ from 0 to 1 = $1/2 - 1/3 = 1/6$.

Q.1
8

Trigonometry

PPSC / FPSC

The value of $\cos 15$ degrees is:

(A) $(\sqrt{6} + \sqrt{2})/4$

(B) $(\sqrt{6} - \sqrt{2})/4$

(C) $(\sqrt{3} + 1)/2\sqrt{2}$

(D) Both A and C are equal -- CORRECT ANSWER

EXPLANATION:

$\cos 15 = \cos(45 - 30) = \cos 45 \cos 30 + \sin 45 \sin 30 = (\sqrt{6} + \sqrt{2})/4$.

Also $(\sqrt{3} + 1)/(2\sqrt{2})$ simplifies to the same value. So A and C are equal.

Q.1
9

Trigonometry

PPSC / FPSC

If $\tan A = 1/2$ and $\tan B = 1/3$, then $A + B$ equals:

(A) $\pi/6$

(B) $\pi/4$ -- CORRECT ANSWER

(C) $\pi/3$

(D) $\pi/2$

EXPLANATION:

$$\tan(A+B) = (1/2 + 1/3)/(1 - 1/6) = (5/6)/(5/6) = 1.$$

Therefore $A + B = \pi/4$.

Q.2
0

Trigonometry

PPSC / FPSC

The number of solutions of $\sin x = x/10$ is:

(A) 1

(B) 3

(C) 5

(D) 7 -- CORRECT ANSWER

EXPLANATION:

The line $y = x/10$ intersects $y = \sin x$ where $|x| \leq 10$.

Count: $x=0$ (1) plus 3 symmetric pairs in $(-10,0)$ and $(0,10)$. Total = 7 solutions.

Q.2
1

Definite Integrals

PPSC / FPSC

The value of Integral[0 to π] $\sin^2(x)$ dx is:

(A) 0

(B) $\pi/4$

(C) $\pi/2$ -- CORRECT ANSWER

(D) π

EXPLANATION:

$$\sin^2 x = (1 - \cos 2x)/2.$$

$$\text{Int}[0 \text{ to } \pi] = [x/2 - \sin 2x/4] \text{ from } 0 \text{ to } \pi = \pi/2 - 0 = \pi/2.$$

Q.2
2

Sequences & Series

PPSC / FPSC

If A.M. = 25 and G.M. = 20 for two numbers, the numbers are:

(A) 40 and 10 -- CORRECT ANSWER

(B) 50 and 8

(C) 36 and 14

(D) 45 and 5

EXPLANATION:

$$a + b = 50 \text{ and } ab = 400. \text{ Quadratic: } x^2 - 50x + 400 = 0.$$

$$x = (50 \pm \sqrt{2500 - 1600})/2 = (50 \pm 30)/2. \text{ Numbers: } 40 \text{ and } 10.$$

Q.2
3

Arithmetic Progressions

PPSC / FPSC

Sum of all integers between 1 and 100 divisible by 7 is:

(A) 735 -- CORRECT ANSWER

(B) 742

(C) 749

(D) 756

EXPLANATION:

Terms: 7, 14, ..., 98. Count $n = \text{floor}(98/7) = 14$.

Sum = $(14/2)(7 + 98) = 7 \times 105 = 735$.

Q.2
4

Polynomials

PPSC / FPSC

The roots of $x^3 - 3x^2 - 4x + 12 = 0$ are:

(A) 1, 2, 6

(B) -2, 2, 3 -- CORRECT ANSWER

(C) -2, 3, 4

(D) 1, -3, 4

EXPLANATION:

Testing $x=2$: $8-12-8+12 = 0$. So $(x-2)$ is a factor.

$(x-2)(x^2-x-6) = (x-2)(x-3)(x+2) = 0$. Roots: -2, 2, 3.

Q.2
5

Coordinate Geometry

PPSC / FPSC

Perpendicular distance from the origin to $3x + 4y + 10 = 0$ is:

(A) 10

(B) 2 -- CORRECT ANSWER

(C) 5

(D) 1

EXPLANATION:

$$\begin{aligned}d &= |ax_0 + by_0 + c| / \sqrt{a^2 + b^2} \\&= |0 + 0 + 10| / \sqrt{9 + 16} = 10/5 = 2.\end{aligned}$$

Q.2
6

Probability

PPSC / FPSC

If $P(A)=0.6$, $P(B)=0.5$, $P(A \text{ intersect } B)=0.2$, then $P(A|B)$ is:

(A) 0.4 -- CORRECT ANSWER

(B) 0.3

(C) 0.6

(D) 0.5

EXPLANATION:

$$P(A|B) = P(A \text{ intersect } B) / P(B) = 0.2 / 0.5 = 0.4.$$

Q.2
7

Trigonometry

PPSC / FPSC

$\sin^2 10^\circ + \sin^2 20^\circ + \dots + \sin^2 90^\circ$ equals:

(A) 4

(B) 4.5

(C) 5 -- CORRECT ANSWER

(D) 5.5

EXPLANATION:

$$\text{Pairing: } \sin^2(\theta) + \sin^2(90^\circ - \theta) = 1.$$

$$\text{Pairs } (10, 80), (20, 70), (30, 60), (40, 50) = 4 \text{ pairs} \Rightarrow 4. \text{ Plus } \sin^2 90^\circ = 1. \text{ Total} = 5.$$

Q.2
8

Coordinate Geometry

PPSC / FPSC

The locus of a point equidistant from two fixed points is:

(A) A circle

(B) A parabola

(C) The perpendicular bisector of the segment joining them -- CORRECT ANSWER

(D) An ellipse

EXPLANATION:

By definition, all points equidistant from two fixed points A and B lie on the perpendicular bisector of AB. It passes through the midpoint of AB and is perpendicular to it.

Q.2
9

Permutations & Combinations

PPSC / FPSC

If $C(n,r) = 120$ and $C(n,r+1) = 210$, then n equals:

(A) 10 -- CORRECT ANSWER

(B) 12

(C) 15

(D) 18

EXPLANATION:

$$C(n,r+1)/C(n,r) = (n-r)/(r+1) = 210/120 = 7/4 \Rightarrow 4n = 11r+7.$$

Testing $n=10$, $r=3$: $C(10,3)=120$ and $C(10,4)=210$. Confirmed: $n = 10$.

Q.3
0

Trigonometry

PPSC / FPSC

The maximum value of $f(x) = \sin x + \cos x$ is:

(A) 1

(B) $\sqrt{2}$ -- CORRECT ANSWER

(C) 2

(D) $\sqrt{3}$

EXPLANATION:

$$f(x) = \sin x + \cos x = \sqrt{2} \cdot \sin(x + \pi/4).$$

Maximum = $\sqrt{2}$, achieved at $x = \pi/4$.

Q.3
1

Series & Sequences

PPSC / FPSC

The sum $1^3 + 2^3 + 3^3 + \dots + n^3$ equals:

(A) $[n(n+1)/2]^2$ -- CORRECT ANSWER

(B) $n(n+1)(2n+1)/6$

(C) $n^2(n+1)^2/2$

(D) $n(n+1)(n+2)/6$

EXPLANATION:

Standard formula: $1^3 + 2^3 + \dots + n^3 = [n(n+1)/2]^2$.

It equals the square of the sum of first n natural numbers. Proved by induction.

Q.3
2

Coordinate Geometry

PPSC / FPSC

The radius of circle $x^2 + y^2 - 6x + 4y - 12 = 0$ is:

(A) 3

(B) 4

(C) 5 -- CORRECT ANSWER

(D) 6

EXPLANATION:

Complete the square: $(x-3)^2 - 9 + (y+2)^2 - 4 - 12 = 0$

$\Rightarrow (x-3)^2 + (y+2)^2 = 25$. Radius = $\sqrt{25} = 5$.

Q.3
3

Differential Calculus

PPSC / FPSC

The derivative of $\tan^{-1}(x)$ with respect to x is:

(A) $1/(1+x^2)$ -- CORRECT ANSWER

(B) $-1/(1+x^2)$

(C) $1/\sqrt{1-x^2}$

(D) $-1/\sqrt{1-x^2}$

EXPLANATION:

Let $y = \tan^{-1}x \Rightarrow \tan y = x \Rightarrow \sec^2 y \cdot dy/dx = 1$
 $\Rightarrow dy/dx = 1/\sec^2 y = \cos^2 y = 1/(1+\tan^2 y) = 1/(1+x^2)$.

Q.3
4

Permutations & Combinations

PPSC / FPSC

The number of diagonals of a polygon with n sides is:

(A) $n(n-3)/2$ -- CORRECT ANSWER

(B) $n(n-1)/2$

(C) $n(n-2)/2$

(D) $n(n+1)/2$

EXPLANATION:

Total segments from n vertices = $C(n,2) = n(n-1)/2$.
 Subtract n sides: Diagonals = $n(n-1)/2 - n = n(n-3)/2$.

Q.3
5

Vectors

PPSC / FPSC

If vectors $2\mathbf{i}-3\mathbf{j}+4\mathbf{k}$ and $(a)\mathbf{i}+6\mathbf{j}-8\mathbf{k}$ are collinear, then a equals:

(A) -4 -- CORRECT ANSWER

(B) 4

(C) -2

(D) 2

EXPLANATION:

Collinear $\Rightarrow$ proportional: $2/a = -3/6 = 4/(-8) = -1/2$.

So $2/a = -1/2 \Rightarrow a = -4$.

Q.3
6

Complex Numbers

PPSC / FPSC

The value of $(1+i)^8$ is:

(A) 16 -- CORRECT ANSWER

(B) -16

(C) 16i

(D) -16i

EXPLANATION:

$$(1+i)^2 = 2i. (1+i)^4 = (2i)^2 = -4.$$

$$(1+i)^8 = (-4)^2 = 16.$$

Q.3
7

Differential Calculus

PPSC / FPSC

$f(x) = x^3 - 3x$ is decreasing on the interval:

(A) $(-\infty, -1)$

(B) $(-1, 1)$ -- CORRECT ANSWER

(C) $(1, \infty)$

(D) $(-1, 0)$

EXPLANATION:

$$f'(x) = 3x^2 - 3 = 3(x^2 - 1). f'(x) < 0 \text{ when } x^2 < 1.$$

So f is decreasing on $(-1, 1)$.

Q.3
8

Differential Calculus

PPSC / FPSC

The tangent to $y = x^2$ at the point (1,1) is:

(A) $y = 2x-1$ -- CORRECT ANSWER

(B) $y = x+1$

(C) $y = 2x+1$

(D) $y = x-1$

EXPLANATION:

$dy/dx = 2x$. At (1,1): slope = 2.

Tangent: $y - 1 = 2(x-1) \Rightarrow y = 2x - 1$.

Q.3
9

Quadratic Equations

PPSC / FPSC

If alpha, beta are roots of $ax^2+bx+c=0$, then $\alpha^2+\beta^2$ equals:

(A) $(b^2-2ac)/a^2$ -- CORRECT ANSWER

(B) $(b^2+2ac)/a^2$

(C) $(b^2-2ac)/c^2$

(D) b^2/a^2

EXPLANATION:

$\alpha+\beta = -b/a$ and $\alpha.\beta = c/a$.

$\alpha^2+\beta^2 = (\alpha+\beta)^2 - 2.\alpha.\beta = b^2/a^2 - 2c/a = (b^2-2ac)/a^2$.

Q.4
0

Differential Equations

PPSC / FPSC

The general solution of $dy/dx = y/x$ is:

(A) $y = Cx$ -- CORRECT ANSWER

(B) $y = C/x$

(C) $y = Ce^x$

(D) $xy = C$

EXPLANATION:

Separate variables: $dy/y = dx/x$.

Integrate: $\ln|y| = \ln|x| + \ln|C| \Rightarrow y = Cx$ (lines through origin).

Q.4
1

Series & Sequences

PPSC / FPSC

The value of $\text{Sum}[k=1 \text{ to } n] k(k+1)$ is:

(A) $n(n+1)(n+2)/3$ -- CORRECT ANSWER

(B) $n(n+1)(2n+1)/6$

(C) $n^2(n+1)/2$

(D) $n(n+1)(n+2)/6$

EXPLANATION:

$\text{Sum } k(k+1) = \text{Sum } k^2 + \text{Sum } k = n(n+1)(2n+1)/6 + n(n+1)/2$
 $= n(n+1)[(2n+1+3)/6] = n(n+1)(2n+4)/6 = n(n+1)(n+2)/3.$

Q.4
2

Logarithms

PPSC / FPSC

If $2^x = 3^y = 6^{-z}$, then $1/x + 1/y + 1/z$ equals:

(A) 0 -- CORRECT ANSWER

(B) 1

(C) -1

(D) 2

EXPLANATION:

Let $2^x = 3^y = 6^{-z} = k$. Then $2 = k^{1/x}$, $3 = k^{1/y}$, $6 = k^{-1/z}$.
 Since $2 \times 3 = 6$: $k^{1/x+1/y} = k^{-1/z} \Rightarrow 1/x + 1/y + 1/z = 0.$

Q.4 3	Integral Calculus	PPSC / FPSC
The integral of $dx/\sqrt{1-x^2}$ is:		
(A) $\sin^{-1}x + C$ -- CORRECT ANSWER		
(B) $\cos^{-1}x + C$		
(C) $\tan^{-1}x + C$		
(D) $\sec^{-1}x + C$		
EXPLANATION: Standard integral: $\int [dx/\sqrt{1-x^2}] = \sin^{-1}x + C$. Verify: $d/dx[\sin^{-1}x] = 1/\sqrt{1-x^2}$. Confirmed.		

Q.4 4	Statistics	PPSC / FPSC
The arithmetic mean of first n natural numbers is:		
(A) $n/2$		
(B) $(n+1)/2$ -- CORRECT ANSWER		
(C) $n(n+1)/2$		
(D) $(n-1)/2$		
EXPLANATION: Sum of first n natural numbers = $n(n+1)/2$. Mean = $[n(n+1)/2] / n = (n+1)/2$.		

Q.4
5

Complex Numbers

PPSC / FPSC

The modulus of $(3+4i)/(4-3i)$ is:

(A) 1 -- CORRECT ANSWER

(B) $7/5$

(C) $5/7$

(D) 25

EXPLANATION:

$|z_1/z_2| = |z_1|/|z_2|$. $|3+4i| = \sqrt{9+16} = 5$. $|4-3i| = \sqrt{16+9} = 5$.
 $|(3+4i)/(4-3i)| = 5/5 = 1$.

Q.4
6

Functions

PPSC / FPSC

If $f(x) = (e^x - 1)/(e^x + 1)$, then $f(x)$ is:

(A) An even function

(B) An odd function -- CORRECT ANSWER

(C) Neither even nor odd

(D) Both even and odd

EXPLANATION:

$$f(-x) = (e^{-x} - 1)/(e^{-x} + 1) = (1 - e^x)/(1 + e^x) = -f(x).$$

Since $f(-x) = -f(x)$ for all x , f is an odd function.

Q.4
7

Inequalities

PPSC / FPSC

The minimum value of $4x + 1/x$ for $x > 0$ is:

(A) 3

(B) 4 -- CORRECT ANSWER

(C) 5

(D) 2

EXPLANATION:

By AM-GM: $4x + 1/x \geq 2\sqrt{4x \cdot 1/x} = 2\sqrt{4} = 4.$

Equality when $4x = 1/x \Rightarrow x = 1/2$. Minimum value = 4.

Q.4 8	Binomial Theorem	PPSC / FPSC
The number of terms in the expansion of $(a+b+c)^{10}$ is:		
(A) 55		
(B) 66 -- CORRECT ANSWER		
(C) 78		
(D) 91		
EXPLANATION: Number of terms in $(x_1+x_2+\dots+x_r)^n = C(n+r-1, r-1)$. Here $n=10$, $r=3$: $C(12,2) = 12!/(2!10!) = 66$.		

QUICK ANSWER KEY

Q#	Ans	Q#	Ans	Q#	Ans	Q#	Ans	Q#	Ans
Q1	A	Q11	B	Q21	C	Q31	A	Q41	A
Q2	D	Q12	B	Q22	A	Q32	C	Q42	A
Q3	A	Q13	A	Q23	A	Q33	A	Q43	A
Q4	B	Q14	B	Q24	B	Q34	A	Q44	B
Q5	B	Q15	C	Q25	B	Q35	A	Q45	A
Q6	D	Q16	B	Q26	A	Q36	A	Q46	B
Q7	A	Q17	A	Q27	C	Q37	B	Q47	B
Q8	C	Q18	D	Q28	C	Q38	A	Q48	B
Q9	A	Q19	B	Q29	A	Q39	A		
Q10	A	Q20	D	Q30	B	Q40	A		

Best of luck in your PPSC / FPSC examination! Practice daily and aim high.