Question Paper

1. Imaginary part of z is, where z=x+iy
A. x
B. y
C. x+y
D. x-y

2. If z, = 3+iy,, z, = 3+i, then real part of z,z, is
A. xy+xy,
B. xy-xy,
C. 9-y
D. 9+y

3. Differential equation Mdx+Ndy =0 is exact iff':
A. " M/" y=" N/" x
B. " M/" x=" N/" y
C. " M/" y=-" N/" x
D. None of the above

4. Fourier series uses which domain representation of signals ?
A. Time domain
B. Frequency domain
C. Both (A) and (B)
D. None of the above

5. "+ €.2 ‹&G, Ò
A. $x^3/3$
B. $x^3/3+c$
C. x^2+c
D. x^3+c

6. Which of the following is ODE ?
A. y="+ €.2 b‡B–G@
B. dy="+ €.2 b‡B–G@
C. y=f(x)
D. dy/dx=f(x)

7. Which of the following is not ODE ?
A. dy/dx=f(x,y)
B. $d^2y/dx^2=f(x,y)$

C. " y/" x=f(x,y)
D. $d^3y/dx^3=f(x,y)$

8. If z = 1+i and arg(z) = < óBÂ F†Vâ ¢ Ò
A. " 2
B. 2" 2
C. 2" 3
D. " 3

9. Which of the following is not true ?
A. div(A+B)=div(A)+div(B)
B. Grad (constant)=0
C. " (A+B)=" .A+" .B
D. Divergence (i+j)=2

10. Find the real number B if A+iB=(1+i)/(1-i):
A. B=0
B. B=1
C. B=-1
D. B=2

11. Which of the following is true ?
A. |z •+z ,| "d |z •|+|z ,|
B. |z •+z ,| "e |z •|-|z ,|
C. |z •-z ,| = |z •|-|z ,|
D. |z •+z ,| = |z •|+|z ,|