

1. Evaluate  $2B(10,6)$   
15015

2.  $F(x,y) \in \frac{1}{2}M$  is called the \_\_\_\_\_ condition.  
boundedness

3.  $f'(x)=F(x,f(x)), f(x_0)=y_0$  is the \_\_\_\_\_ condition  
Lipschitz

4. Evaluate  $\hat{I}''(12)$   
 $\hat{I} \in$

5. A function  $f$  is said to be \_\_\_\_\_ with period  $T$ , If the domain of  $f$  contains  $x+T$  whenever it contains  $x$  and  $y$ ,  $f(x+T)=f(x)$  for every value of  $x$ .  
periodic

6. Evaluate  $\hat{I}''(4)$   
6

7. The coefficient of  $x^2$  in the solution of  $y'=1+xy$  by method of  
 $1/2$

8. The problem of finding a solution of Laplace equation which takes on given boundary values is known as \_\_\_\_\_ problem.  
Dirichlet

9. Evaluate  $\hat{I}'' \in \int_{\hat{I}^2}^{\hat{I}^2} t^{\hat{I}^2-1} (1-t)^{\hat{I}^2-1} dt$   
 $B(\hat{I}^2, \hat{I}^2)$

10. The \_\_\_\_\_ differential equation of order  $p$  is given by  $(1-x^2)d^2y/dx^2 - 2xdy/dx + p(p+1)y=0$   
Legendre

Evaluate  $\hat{I}'' \in \int_{\hat{I}^2}^{\hat{I}^2} t^{\hat{I}^2-1} (1-t)^{\hat{I}^2-1} dt$   
 $B(\hat{I}^2, \hat{I}^2)$