**MTH 101 SOLVED MCQ’S FROM QUIZ 2016**

|  |  |  |
| --- | --- | --- |
| **1** | Is the function f(x) = tan (x) continuous at x = pi ? If not, why? | **f is continuous at x = pi .** |
| **2** | A bus travels 175 miles in 2.5 hours. Its average velocity will be……… | **60m/h** |
| **3** | Iff(x)=x√  and  g(x)=4x√f(x)=x  and  g(x)=4x, then the derivative of | **x + 2** |
| **4** | Slope of the graph of the function: f(x) = -4x+99 at the point (99,100) is ---- | **-4** |
| **5** | The point slope form of the equation of tangent line at the point (x1,y1) is | **y-y1=m(x-x1)** |
| **6** | If f(x) = 8x^2 -2x +5 , then f ‘ (0) will be……. | **4** |
| **7** | d(5x+4)/dx=..... | **5** |
| **8** | The power rule for derivative says to \_\_\_\_\_ '1' from the exponent. | **Add** |
| **9** | The derivative of y=x+cosx can be found by using ………rule | **product** |
| **10** | The derivative of | **Power** |
| **11** | Sum of n-terms of a series whose nth term is ‘n’ = 1/n+1.then what is the sum of the first two terms is ----- | **5/6** |
| **12** | If f(x) = Cos(x) + x, then which of the following is NOT true about it. | **Its anti – derivative is -Sin(x) + x^2/2 + 4.** |
| **13** | If ‘n’ goes from 1 to any large ODD number then the summation of ‘(-1)^n’ = --------- | **-1** |
| **14** | Summation of 2 where sum ranges from 0 to 10 equals 20. | **False** |
| **15** | The area between f(x)=-x and the closed interval [-1,0] on x-axis is ---------- | **1** |
| **16** | If the interval [3,7] is divided into ‘4’ equal subintervals ,then right endpoint of each subinterval will be……… | **3,4,5,6** |
| **17** | If [-8,8] is subdivided into ‘16’ equally spaced subintervals, then the MIDDLE point of 8th sub-interval will be--------. | **0.5** |
| **18** | Increase in number of rectangles under any continuous function gives …………. approximation to area. | **no change in** |
| **19** | Subdivide the interval [1, 5] into ‘n’ equally spaced subintervals then the width of each sub-interval is ------ | **1/n** |
| **20** | If integral of ‘f(x)’ from [-8,16] = 54 , then integral of ‘5f{x)’ from [-8,16] =……….. | **270** |
| **21** | In the indefinite integral of x(y^2) w.r.t ‘y’ , the term ….. serve to identify the independent variable in the function. | **dy** |
| **22** | Integral of x^2+x^3 is NOTE: x^n means ‘x’ to the power ‘n’ | **(1/4)x^4+(1/3)x^3 +C** |
| **23** | Area of a rectangle whose width is 5 units and length is 6 units will be …. | **30 square units** |
| **24** |  | **3080.** |
| **25** | 1+2+3………+t equals | **t(t+1)/2** |
| **26** | How many subintervals of length ‘2’ will be formed for the interval [4,16] ? | **6** |
| **27** | The estimated area under f(x) = x^2 from x = 1 to x = 3 with right end points for n = 2 is \_\_\_\_\_\_\_\_. | **13.** |
| **28** | Integration of 5 with respect to x is………… | **5x** |
| **29** | Right end point ,left end point, and midpoint evaluation all converges to same result as number of subintervals tends to +ive infinity. | **True** |
| **30** | Integral of (1-2x) from [0,1] is ……….. | **0** |
| **31** | If ‘n’ goes from 1 to 3 and the summation of ‘na’ = derivative of Cosx at (pi/2), then the value of ‘a’=------ | **1/6** |
| **32** | If the value of definite integral of a function f(x) taken from 1 to 3 is 2 and that of taken from 3 to 5 is 1 then value of definite integral taken from 1 to 5 is | **3** |
| **33** | summation of (ai) (i varies from 1 to n) , summation of (aj) (j varies from 1 to n),summation of (ak) (k varies from 1 to n) All these three represents same summation. | **True** |
| **35** | If x = 5 + 6 + . . . + 40, then x = \_\_\_\_\_\_\_\_. | **None of these.** |
| **36** | The indefinite integral of 5sinx is ………. | **-5cosx+c** |
| **37** | Approximation to an area improves as number of partitions is decreased. | **True** |
| **37** | Integration of (Cosx/Sinx).Cosecx with respect to x………… | **-Cosecx** |
| **39** | If the definite integral of f(x)=3 over [1,x] is greater than ‘12’ then ----- | **x>1** |
| **40** | Let f(x)=x^3 and a=-3 ,b=3 and n = no. of partition of [-3,3]= 4 Let the widths of first, second, third and fourth intervals are 2, 1, 1, 2 respectively. Then “Mesh size” of this partition of [-3,3] is------- | **0** |