**CH NO 3 (INTEGRATION) NAME :………………………**

**EX 3.3 ROLL.NO: ……………**

**Q.NO.1 FILL THE BUBBLES ACCORDING TO FOLLOWING QUESTIONS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SR.NO** | **STATEMENT** | **A** | **B** | **C** | **D** |
| **1** | To evaluate ꭍ the best substitution is | x=acosθ | x=atanθ | x=acosθ | x=asinθ |
| **2** | ꭍtan2xdx | x-tanx+c | x+tanx+c | -x-tanx+c | -x+tanx+c |
| **3** | Differential of y is denoted by | dy | dx | dy1 | none |
| **4** | ꭍ-sinxdx | sinx+c | cosx+c | -cosx+c | -sinx+c |
| **5** | ꭍ3xdx | x3x-1+c | 3xln3+c | +c | none |
| **6** | ꭍsec3xtan3xdx | 3sec3xtan3x+c | 1/3 secx+c | sec3x/3 +c | tan3x/3+c |
| **7** | ꭍsinx()dx | ln(cosx)2 | ½ ln(cosx)2 | -lncos2x | -½ ln(cosx)2 |
| **8** | If k is a constant then ꭍkf(x)dx= | k3ꭍf(x)dx= | k2ꭍf(x)dx | k ꭍf(x)dx | ꭍf(x)dx |
| **9** | ꭍcot2xdx | x-cotx+c | x+cotx+c | -x-cotx+c | None |
| **10** | Anti derative of cot x is | cosec2x+c | -ln|cosx|+c | ln|cosx|+c | ln|sinx|+c |
| **11** | If α is constant so ꭍtanαdy is equal to | sinα+c | -sinα+c | ytana+c | ln|tana|y+c |
| **12** | ꭍsin2xdx | cos2x | -cos2x | sin2x | ½(x-sinxcosx)+c |
| **13** | ꭍdx | tan-1x+c | -1+tan-1x+c | -1+2tan-1x+c | x+tan-1x+c |
| **14** | ꭍecosx sinxdx | ecosx+c | -ecosx+c | esinx+c | lncosx+c |
| **15** | ꭍdx | 2 | 1/3tanx/3+c | 1/3sin-1(x/3)+c | ln(9-x2)+c |

**Q. NO .2 GIVE SHORT ANSWERS**

|  |  |  |  |
| --- | --- | --- | --- |
| **1** | Evaluate | **2** | Evaluate |
| **3** | Evaluate | **4** | Evaluate dx |
| **5** | Evaluate | **6** | Evaluate |
| **7** | Evaluate dx | **8** | Evaluate |
| **9** | Evaluate | **10** | Evaluate |
| **11** | Evaluate | **12** | Evaluate dx |
| **13** | Evaluate | **14** | Evaluate |

**Attempt all questions.**

|  |  |
| --- | --- |
| **a** | Show that = |
| **b** | Show that ln(x+)+c |
| **C** | Evaluate |