**Test about the differentials**

**Part I** Calculate the given differentials and mark the correct answer!

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |
| **2.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |
| **3.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |
| **4.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |
| **5.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |

**Part II** Convert the given expression into the differential of a function. Mark the correct answer!

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |
| **2.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |
| **3.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |
| **4.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |
| **5.** |  |  |  |  |  |  |  |  |  |
|  |  | **A** |  | **B** |  | **C** |  | **D** |  |

**Answers**

*Part I*

1 – C; 2 – B; 3 – A; 4 – D; 5 – A

*Part II*

1 – C; 2 – A; 3 – B; 4 – A; 5 – D

**Solution**

*Part I*  Apply the formula

Example 1

Example 2

Example 3

Example 4

Example 5

*Part II* Apply the formula

Example 1

Example 2

Example 3

Example 4

Example 5