EXPERIMENT NO. 06

***Aim:*** Write program to demonstrate integrity management by implementing message digest using MD5.

***Code:***

import hashlib

message = input("Enter the message: ") md5result = hashlib.md5(message.encode())

print("\nMD5 hash in byte:\n", md5result.digest()) print("\nMD5 hash in hexadecimal:\n", md5result.hexdigest())

sha256result = hashlib.sha256(message.encode()) print("\nSha-256 hash in byte:\n", sha256result.digest())

print("\nSha-256 hash in hexadecimal:\n", sha256result.hexdigest())

sha512result = hashlib.sha512(message.encode()) print("\nSha-512 hash in byte:\n", sha512result.digest())

print("\nSha-512 hash in hexadecimal:\n", sha512result.hexdigest())

***Output:***

Enter the message: Message Digest

MD5 hash in byte: b'\xbb\xd9\xd8\xccJ\xd8\xad%\x99\xdb\xf6#\xe7\xe5(.'

MD5 hash in hexadecimal: bbd9d8cc4ad8ad2599dbf623e7e5282e

Sha-256 hash in byte: b"\x18\xc9A\xc8\n\xf0\xb4\x12\xbfnf\x8a\t\xa6>\x14\n\x921'N\xc9'\x85

\x1eV\xa9\x98\xfa!\xe7G"

Sha-256 hash in hexadecimal: 18c941c80af0b412bf6e668a09a63e140a9231274ec927851e56a998fa21e747

Sha-512 hash in byte: b'\xf1A\xf5\xa7Oj\xcf\x96\xab\x05?m\xeb5\xf9\x03\x84\xc3\xe4\xd6KMt\ xa1\x89\x8a\xf1\x84\xbcY\xd0\xd6\\,^\x80z=\x80\x81\xfd\xef\x00\xf8D\ xf8?\x1a\xf6p\x83\x90\x84\xbd\x14%I\x0e\xb4\xca\xfc\xa5@\xf0'

Sha-512 hash in hexadecimal: f141f5a74f6acf96ab053f6deb35f90384c3e4d64b4d74a1898af184bc59d0d65c2c 5e807a3d8081fdef00f844f83f1af670839084bd1425490eb4cafca540f0

***Conclusion:*** Hence implemented message digest.