

Subject: FINANCIAL MATHEMATICS II

**Semester II
FYBAF (A, B and C Division)
ASSIGNMENT**

Instructions:

Answer the following questions in the A4 Size assignment paper and attached the certificate.

Q.1 SOLVE THE FOLLOWING

1. The capital of a company is made up of 1,00,000 preference shares with 12% dividend and 8,00,000 equity shares. The face value of both the shares is ₹10 each. In a particular year, the company had a profit of ₹2,40,000 from which ₹40,000 was kept in reserve and the remaining was distributed to the shareholders. Find the rate of dividend distributed to the equity shareholders.
2. Find the market price of a share if an investment of ₹1,09,350 in 20% ₹100 shares gave a total dividend of ₹9,000.
3. A person purchased 400 shares at ₹336 each and sold them at ₹360 each on the same day. The brokerage was nil on purchase and 0.1% on sale. Find the net amount received.
4. A person purchased some shares of a company at ₹210 each and sold them after 3 months at ₹250 each on the same day. The brokerage was 0.2% on purchase and 0.3% on sale. Find the number of shares traded if the net amount received was ₹27,181.
5. Find the total dividend and the rate of return on investment if a person bought 350 shares of nominal value ₹10 at ₹50 each and received a 8% dividend.
6. A person purchased some ₹100 share at 20% discount and sold them at a 10% premium. The brokerage in each of the transactions was 0.3%. Find the rate of return on investments.
7. A person purchased 400 ₹100 shares at ₹180 each, paying 0.2% brokerage. After getting 11% dividend, he sold them at ₹210 each paying 0.3% brokerage. Find his total gain and the rate of return on investment.
8. The N.A.V. of a mutual fund scheme changed from ₹41.25 to ₹52.19 in 18 months. Find the absolute change in the N.A.V., percentage change in N.A.V. and the annualized change in N.A.V.
9. A person invested ₹8000 in a mutual fund on 22/03/07 when the N.A.V. was ₹1143.024 and redeemed all the units on 07/08/07 when the N.A.V. was ₹1174.715. What was the total gain? What was the rate of return? The number of units were rounded off to 3 decimal places.
10. An SIP was started by a person on 07/08/07. Five monthly instalments of ₹1000 each were invested on 7th of every month up to 07/12/07. The N.A.V were ₹18.5268, ₹18.6389, ₹18.7575, ₹18.8682 and ₹18.9945 respectively. Find the average acquisition cost per unit upto 4 decimal places. The entry load was 2.25%