

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2015 – 2016 and thereafter)

SUBJECT CODE: 15CM/AC/PF35

B.A DEGREE EXAMINATION NOVEMBER 2019
BRANCH IV – ECONOMICS
THIRD SEMESTER

COURSE : ALLIED – CORE
PAPER : PRINCIPLES OF FINANCIAL MANAGEMENT
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

ANSWER ALL QUESTIONS: (10 x 2 = 20)

1. What is Annuity?
2. List out any two significance of financial management.
3. What is risk return trade off?
4. Enlist any two characteristics of permanent working capital.
5. Mention the techniques of Capital budgeting.
6. Find the present value of Rs.10,000 receivable 6 years hence if the rate of discount is 12%?
7. Calculate the compound value when Rs.3,000 is invested for 4 years and the interest on it is compounded at 12% p.a semi- annually.
8. Calculate the net present value for a small sized project requiring an initial investment of Rs.20,000 and which provides a net cash inflow of Rs.6,000 each year for six years. Assume the cost of funds to be 8% p.a and that there is no scrap value.
9. Mahindra Ltd. purchases and sells goods entirely on credit basis. The credit period allowed to it by suppliers is 45 days and firm allows 60 days to its customers. However, in actual practice the average age of accounts payables is 60 days and the average age of account receivables is 70 days. The average age of firm's inventory is 80 days. Calculate (i) The firm's cash cycle and (ii) Cash turnover assuming 360 days in a year.
10. A project has an initial investment of Rs.2,00,000. It will produce cash flows after tax of Rs.50,000 per annum for six years. Calculate the payback period for the project.

SECTION – B

ANSWER ANY FIVE QUESTIONS: (5 x 8 = 40)

11. Explicate the objectives of Financial Management.
12. Explain the functions of Finance Manager.
13. Calculate the present value of annuity of Rs.5000 received annually for four years, when discounting factor is 12%.

14. Prepare a cash budget for the month of June 2009:

Cash in hand (estimated) on 1 st June	Rs.20,000
Sales – May, 2009	Rs.50,000
Sales – June, 2009	Rs.80,000

80% amount is recovered in the month of sale and the balance is received in the subsequent months.

Purchases for the month of May 2009 and June 2009 are estimated to be Rs.20,000 and Rs.30,000 respectively. No credit period is allowed by the suppliers.

A sale commission of 5% is paid in cash in the month of sale itself.

15. The cash flows from two mutually exclusive projects X and Y are as under:

Year	Project X (Rs.)	Project Y (Rs.)
0	(-) 44,000	(-) 54,000
1-7 (annual)	12,000	14,500
Project life	7 years	7 years

Calculate the profitability index at 15% discount rate and suggest which project is profitable.

16. From the following data compute the duration of the operating cycle

Particulars	Rs.
Stocks of Raw materials	20,000
Stocks of Work-In-Progress	14,000
Stock of finished goods	21,000
Purchase of raw materials	96,000
Cost of goods sold	1,40,000
Sales	1,60,000
Debtors	32,000
Creditors	16,000

Assume 360 days per year for computations purposes.

17. ABC Ltd. is considering the purchase of a new machine to replace a machine which has been in operation in the factory for the last 5 years. Ignoring interest but considering tax at 50% of net earnings, suggest which of the two alternatives should be preferred. The following are the details:

Particulars	Old machine	New machine
Estimated life of machine	Rs.40,000	Rs.60,000
Estimated life of machine	10 years	10 years
Machine running hours p.a	2,000	2,000
Units per hour	24	36
Wage per running hour	3	5.25
Power per annum	Rs.2,000	Rs.4,500
Consumable stores p.a	Rs.6,000	Rs.7,500
All other charges p.a	Rs.8,000	Rs.9,000
Material cost per unit	Rs. 0.50	Rs. 0.50
Selling price per unit	Rs.1.25	Rs.1.25

You may assume that the above information regarding sales and cost of sales will hold good throughout the economic life of each of the machines. Depreciation has to be charged according to straight line method. Calculate the accounting rate of return.

SECTION – C

ANSWER ANY TWO QUESTIONS:

(2 x 20 = 40)

18. Forecast the cash position at the end of April, May and June 2018, from the following information:

Month 2018	Sales (Rs.)	Purchases (Rs.)	Wages (Rs.)
February	1,80,000	1,24,800	12,000
March	1,92,000	1,44,000	14,000
April	1,08,000	2,43,000	11,000
May	1,74,000	2,46,000	10,000
June	1,26,000	2,68,000	15,000

Additional information:

- 50% of credit sales are realised in the month following the sale and the remaining 50% in two equal monthly instalments. 25% of sales are expected to be in cash.
- Creditors are paid in the month following the month of purchase. 25% purchases are in cash.
- Cash at bank on 1.04.2018 (estimated) Rs.10,000
- Lag in payment of wages – one month.

19. While preparing a project report on behalf of a client you have collected the following facts. Estimate the net working capital required for the project. Add 10% to your computed figure to allow contingencies:

Particulars	Amount per unit
Estimated cost per unit of production	
Raw material	Rs.80
Direct labour	Rs. 30
Overheads (exclusive of depreciation, Rs.10 per unit)	Rs.60
Total cash cost	Rs. 170

Additional information:

Selling price Rs.200 per unit

Level of activity, 1,04,000 units of production per annum

Raw materials in stock, average 4 weeks

Work in progress (assume 50 percent completion stage in respect of conversion costs and 100 percent completion in respect of materials), average 2 weeks.

Finished goods in stock, average 4 weeks.

Credit allowed by suppliers, average 4 weeks.

Credit allowed to debtors, average 8 weeks.

Lag in payment of wages, average 1.5 weeks

Cash at bank is expected to be Rs.25,000.

You may assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All sales are on credit basis only.

20. A project required an initial outlay of Rs.20,000. It generates year ending profits of Rs.12,000, Rs.6,000, Rs.4,000, Rs.10,000 and Rs.10,000 from the end of the first year to the end of the fifth year. The required rate of return is 10% and pays tax at 50% rate. The project has a life of 5 years and is depreciated on straight line method basis. Assume that the above year ending profits are before depreciation and tax. You are required to compute:

- (a) Pay back period
- (b) Average rate of return
- (c) Net present value

21. (a) Mr. Sathya intends to have a return of Rs.10,000 per annum for perpetuity. In case the discount rate is 20%, calculate the present value of this perpetuity.
- (b) Vijay borrows from Queens bank an amount of Rs.10,00,000 @12% p.a on 1/04/2012. As per agreement, repayment including interest is to be made in five equal annual instalments with first instalment falling due after three years i.e on 31/03/2015. What would be the amount of each instalment?
- (c) 10 years savings annuity of Rs.2,000 per year is beginning at the end of current year. The payment of retirement annuity is to begin 16 years from now (the first payment is to be received at the end of year 16) and will continue to provide a 20 year payment annuity. If this plan is arranged through a saving bank that pays interest @ 7% per year on the deposited funds, what is the size of the yearly retirement annuity that will result.
