

**B.E. (Civil Engineering) Eighth Semester (C.B.S.)**  
**Construction Economics & Finance**

P. Pages : 3

Time : Three Hours

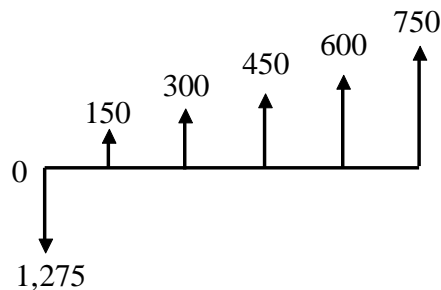


**NRT/KS/19/3630**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.
  8. Due credit will be given to neatness and adequate dimensions.
  9. Assume suitable data whenever necessary.
  10. Illustrate your answers whenever necessary with the help of neat sketches.
  11. Interest Tables are allowed.

1. a) For the cash flow diagram shown below, compute the rate of return. The amounts are in rupees. 7



- b) Explain the importance of construction and infrastructure in economic development growth. 6

**OR**

2. a) Explain the following concepts. 4  
 i) Time value of money. 3  
 ii) Discounted cash flow.

- b) A company is trying to diversify its business in a new product line. The life of the project is 10 years with no salvage value at the end of its life. The initial outlay of the project is ₹20,00,000. The annual net profit is ₹ 3,50,000. Find the rate of return for the new business. 6

3. a) What do you understand by 'Land'? Assess the importance and significance of land with reference to construction industry? 7

- b) A finance company KTP accepts ₹10,000 at the end of every year for 20 years and pays the investor ₹ 8,00,000 at the end of the 20<sup>th</sup> year. Another finance company MPT accepts ₹ 10,000/ at the end of every year for 20 years and pays the investor ₹ 15,00,000 at the end of 25<sup>th</sup> year. Which is the best investment alternative? Use present worth base with  $i=12$  percent. 6

**OR**

4. a) Discuss the nature and importance of Turnkey construction projects. **7**
- b) A granite company is planning to buy a fully automated granite cutting machine. If it is purchased under down payment, the cost of machine is ₹ 16,00,000. If it is purchased under installment basis, the company has to pay 25% of the cost at the time of purchase and the remaining amount in 10 annual equal instalments of ₹ 2,00,000 each. Suggest the best alternative for the company using present worth basis at  $i = 18\%$  compounded annually. **6**
5. a) What is inflation? Explain the causes of inflation in details. **7**
- b) Explain the following-
- i) Oligopoly market. **3**
  - ii) Recession. **4**

**OR**

6. a) Explain the following-
- i) Stagflation and its impact on construction industry. **4**
  - ii) Features of monopoly market. **3**
- b) Explain in details as to how inflation is brought under control. **7**
7. a) Explain the significance of foreign Direct investment in development of infrastructure in India. **7**
- b) Explain the short term and medium term sources of finance for the construction companies. **6**

**OR**

8. a) What do you understand by the term project cash flow? Explain in details. **7**
- b) Discuss in details the long term financial sources available for construction companies in India. **6**
9. a) What do you understand by income statement? Explain it in the context of construction company. **7**
- b) The following is the extract of a firm. **6**
- |                              | ₹        |
|------------------------------|----------|
| Equity share capital         | 2,00,000 |
| 10% preference share capital | 1,00,000 |
| Reserve & Capital            | 1,00,000 |
| 20% Debentures               | 1,00,000 |
| Loan (long term)             | 50,000   |
| Current Liabilities          | 1,50,000 |
- From the above data compute the following ratios.
- i) Debt equity ratio
  - ii) Debt to capital ratio

**OR**

- 10.** a) Discuss the importance of affordable housing scheme of the Government. **7**
- b) Extract of the firm is as follows - **6**
- |                                    |          |
|------------------------------------|----------|
| Net Profit before interest and tax | ₹ 16,500 |
| Capital employed                   | ₹ 35,000 |
| Sales                              | ₹ 85,000 |
| Gross Profit                       | ₹ 34,000 |
- From the above data, compute the following profitability ratios.
- i) Return on investment                      ii) Net profit ratio
- iii) Gross profit ratio

- 11.** a) What is working capital? Explain the factors which influence working capital. **7**
- b) Explain the meaning of cost of capital. What are the different considerations taken into account while ascertaining cost of capital. **7**

**OR**

- 12.** a) Explain the meaning of capital structure. Discuss the factors that influence capital structure. **7**
- b) ABC company Ltd. expects its cost of goods sold for 2018-19 to be ₹ 612 lakhs. The expected operating cycle is 90 days. If it wants to keep a minimum cash balance of ₹ 1 Lakh. What is the expected working capital requirement (Assume 360 days in a year). **7**

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