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**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF ENGINEERING

END TERM EXAMINATION – AUGUST 2024

Semester : 2nd Semester

Course Code: CIV5007

Course Name: Construction Economics & Contract Specifications

Program : M.Tech BCT

Date: 19 /08/ 2024

Time: 09:30AM – 12:30PM

Max Marks: 100

Weightage: 50%

Instructions:

- (i) Read the all questions carefully and answer accordingly.
- (ii) Do not write any matter on the question paper other than roll number.
- (iii) Scientific and Non-programmable Calculators are permitted.

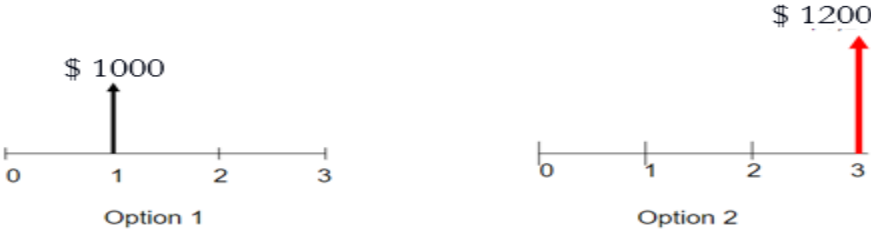
PART A

ANSWER ANY 3 QUESTIONS.

(3Qx 5M= 15M)

1. At what interest rate are these two transaction options equal?

(C.O.No.1) [Knowledge]



2. Define Break-even point and construct a break-even chart.

(C.O.No.2) [Knowledge]

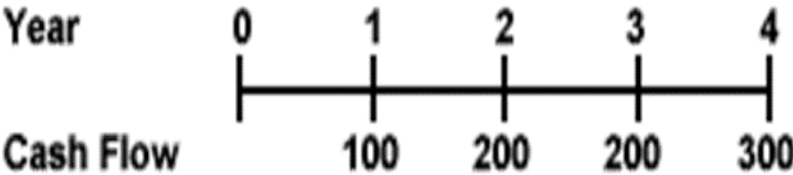
3. Define Breach of a contract and discuss its types?

(C.O.No.3) [Knowledge]

4. Discuss the various elements of a contract.

(C.O.No.3) [Knowledge]

5. Find the Present value for the following Cash flow stream given that the interest rate is 10%.



(C.O.No.1) [Knowledge]

PART B

ANSWER ANY 4 QUESTIONS.

(4Qx10M=40M)

6. A Sports apparel company has initiated a logo-licensing program. It expects to realize a revenue of \$80,000 in fees next year from the sale of its logo. Fees are expected to increase uniformly to a level of \$200,000 in 9 years. Construct the cash flow diagram and determine the arithmetic gradient. (C.O.No.1)[Comprehension]

7. Working capital management is a process through which a company utilizes its current assets and liabilities in the best possible manner to ensure operational effectiveness. What are the different components of WCM? Discuss its objectives. (C.O.No.2) [Comprehension]

8. A tender document is a formal invitation sent to the potential suppliers to submit a proposal for a project or contract. The document outlines the terms and conditions of the project, as well as the evaluation criteria that will be used to select the successful bid. Based on your understanding, what are the different types of Tenders and write in brief the processes involved in tendering? (C.O.No.3) [Comprehension]

9. Conditions of a contract can be expressed as a requirement where one or both parties must comply. In any contract composition, there are two documents that are inevitable. A General condition (GCC) is one that is common and included in most contracts. Special conditions (SCC) are those that are specific to that contract. As per the FIDIC, write the clauses covered under GCC and SCC (ten each). (C.O.No.3) [Comprehension]

10. Prepare a Profit and Loss Account for the year ended 31st March 2021.

S. No	Particulars	Amount in Rs.	S.No	Particulars	Amount in Rs.
1	Gross Profit	100000	11	Bad Debts	1500
2	Manager salary	30000	12	Rent Received	1000
3	Office Lighting	5000	13	Advertising Charges	25000
4	Office Rent	15000	14	Discount allowed	3000
5	Discounts Received	4000	15	Package Charges	7500
6	Local taxes	1000	16	Depreciation charges	10000
7	Salesmen Salary	20000	17	Repairs and Maintenance	2500
8	Legal Charges paid	3000	18	Interest on Loans	1500
9	Commission charges paid	10000	19	Interest on loans Received	500
10	Dividends Received	2000			

(C.O.No.2) [Comprehension]

11. Any disagreement or problem may arise during the formation or performance of the contract. The contract issue could be something as small as a misunderstanding about the terms of the agreement, or it could be something much larger, such as one party not holding up their end of the bargain. Discuss on different Contract issues that one might have while working on a construction project. (C.O.No.3) [Comprehension]

PART C

ANSWER ANY 3 QUESTIONS. (3Qx15M=45M)

12. A delivery truck was purchased by Anton on January 1, 2022. The truck costs \$20000 with a useful life of 5 years. The Expected salvage value for the truck is \$2000. The expected Miles used were 80,000. (C.O.No.2) [Application]

Year	Units of Activity in Miles
2018	15000
2019	30000
2020	20000
2021	25000
2022	10000

Prepare Schedule of Depreciation on the basis of following methods

- (i) Straight Line Method
- (ii) Units of Output Method
- (iii) Double Declining Balance Method

13. From the following particulars presented below in the table, Prepare a **Profit and Loss account** for M/s Sports Equipments for the year ended March 31, 2021: (C.O.No.2) [Application]

Gross Profit - ₹100000	Bad debts - ₹2000	Adjustments: i) Outstanding Salaries = ₹4000 ii) Rent paid for 11 months iii) Interest due but not received= ₹2000 iv) Prepaid insurance = ₹2000 v) Depreciate Plant and machinery by 10%p.a vi) Further bad debts amounted to ₹2000 and make a provision for bad debts @5% for Sundry Debtors vii) Commissions received in advance = ₹2000
Rent - ₹22000	Provision for Bad Debts (1/04/2020) - ₹4000	
Salaries - ₹10000	Sundry Debtors- ₹40000	
Commission credited- ₹12000	Discounts Received- ₹2000	
Insurance paid- ₹8000	Plant and Machinery- ₹80000	
Interest received- ₹6000		

14. During the execution of the project, there is a high chance that the contractor fails to satisfy the client due to differing expectations and aims, eventually leading to conflicts. This may lead to claims made by the client under contract who has incurred losses during the process. Discuss the different types of Construction Claims and their causes. (C.O.No.3) [Application]

15. From the following particulars, Prepare a balance sheet for Mr. Ankith for the year ended 31st March, 2020. (C.O.No.2) [Application]

Capital - ₹200000	Bills payable - ₹20000	Adjustments: i) Outstanding Liabilities for a) Salaries = ₹10000 b) Wages = ₹20000 c) Interest on bank overdraft = ₹3000 d) Interest on bank loan = ₹6000 ii) Provide interest on capital @10% p.a iii) Depreciation on Plant and Machinery by @10% p.a iv) Bad debts amounted to ₹10000 and make a provision for bad debts @10% for Sundry Debtors v) Closing stock = ₹1,20000 vi) Net profit for the year = ₹96000 considering all the above adjustments
Drawings-₹40000	Goodwill- ₹60000	
Cash in Hand - ₹15000	Sundry Debtors- ₹80000	
Loan from Bank - ₹40000	Plant and Machinery- ₹80000	
Sundry Creditors - ₹40000	Land and Building- ₹50000	
Bank Overdraft-₹20000	Investment-₹20000	
Bills Receivable- ₹10000	Cash at Bank-₹25000	

16. A Good Contract document helps in resolving misunderstandings before they escalate into disputes. It is the result of careful preplanning and a concerted effort at all levels of the field organization. List the Composition of a Contract and write in brief about the types of specifications that can be included in a contract. (C.O.No.3) [Application]