

Please check that this question paper contains 9 questions and 3 printed pages

EVENING

[Total No. of Questions:09]

[Total No. of Pages:03.]

Uni. Roll No.

28 DEC 2022

Program: B. Tech

Semester: 6TH

Name of Subject: **Engineering Economics, Estimation and Costing**

Subject Code: PCCE-110

Paper ID: 16387

Time Allowed: 03 Hours

Max. Marks: 60

NOTE:

- 1) Parts A and B are compulsory
- 2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
- 3) Any missing data may be assumed appropriately

Part – A

[Marks: 02 each]

- Q1 a) How is National income calculated ?
- b) You are reviewing a project and have estimated the following cash flows:
Year 0: CF = -215,000 Year 1: CF = 72,300; NI = 15,700
Year 2: CF = 83,700; NI = 5,900 Year 3: CF = 97,250; NI = 25,800 Average
Book value = 77000
Your required return for asset of this risk level is 12.5%
Will you accept or reject the project based on NPV.
- c) What are the limitations of CPI.
- d) Perform a rate analysis for earthwork in excavation in trenches for ordinary soils not exceeding 1.5 m in depth with normal lead and lift.
- e) Total quantity of R.C.C work for a slab of two room building is calculated as 8cu.m. estimate the quantity of steel required.
- f) State the units of measurements and payments for the following items of materials :
- (i). Supply of bricks. (ii). Supply of Sand.
(iii). Supply of Cement. (iv). Supply of Steel

Part – B

[Marks: 04 each]

- Q2. Define GDP. How it is different from GNP. What are the components of GDP and how it is calculated?
- Q3. Write short notes on :
(i) Direct and indirect cost (ii) Depreciation
- Q4. Write down the detailed specifications for Water Bound Macadam layer including physical properties of materials and construction process.
- Q5. Calculate the cost of transport of 1800 cu.m of stone ballast from a distance of 25 km by truck carrying 3 cu.m per trip. The rate of carriage including loading and unloading being :
- | | | | |
|--------------------|------------------|----------|-----------------|
| 1 st km | Rs. 55 per cu.m | 2-5 Km | Rs. 15 per cu.m |
| 6-10 Km | Rs. 10 per cu.m. | 11-20 Km | Rs. 8 per cu.m |
| 21-25 Km | Rs. 7 per cu.m | | |

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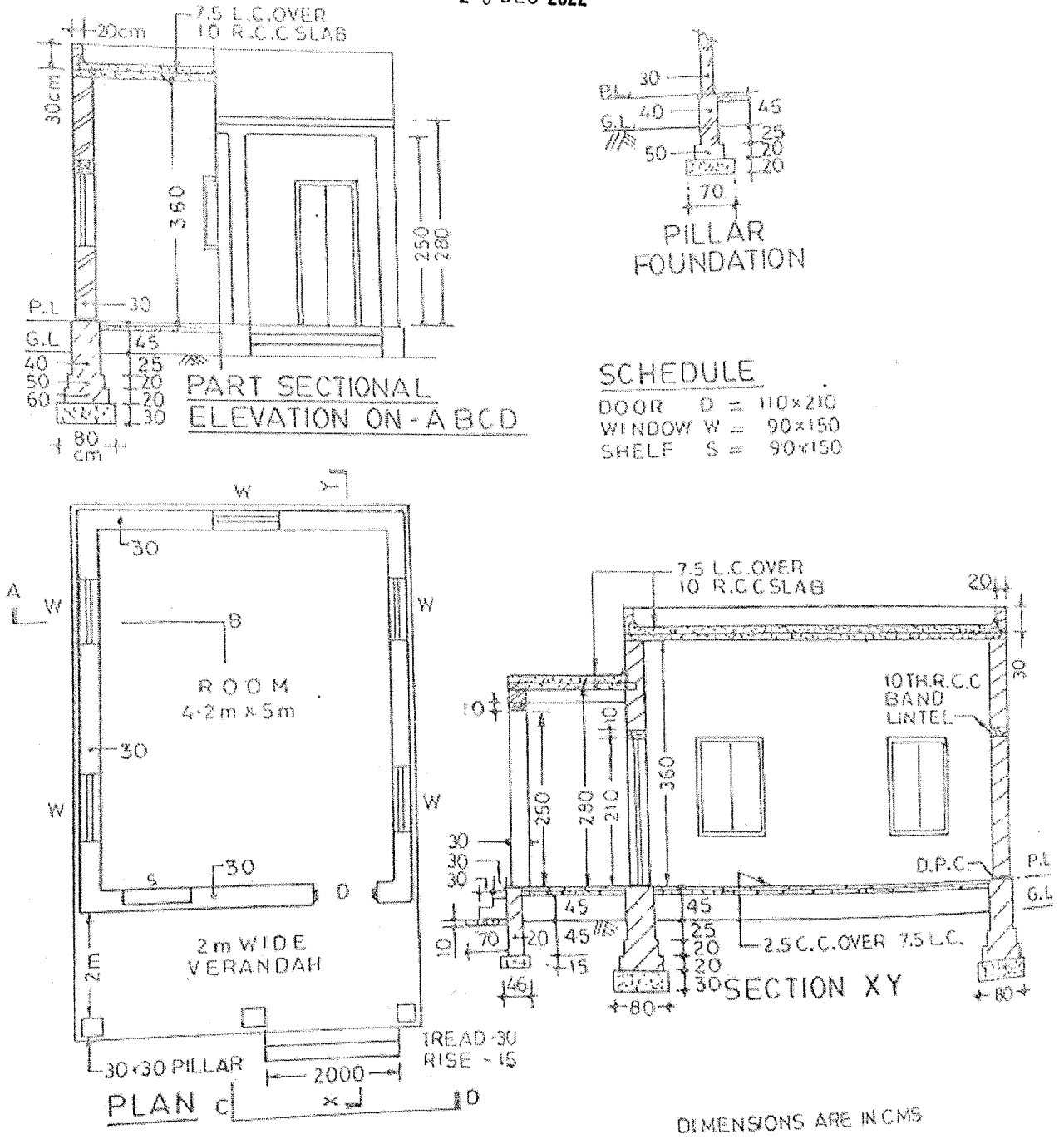


Fig.1

