CBCS SCHEME

USN				121		18MR51
CBIN						

Fifth Semester B.E. Degree Examination, July/August 2021 **Management and Economics**

Time: 3 hrs. Max. Marks: 100 Note: Answer any FIVE full questions. Explain the various steps in decision making in detail. (10 Marks) 1 Define planning. Explain its types in detail. (10 Marks) Write a short note on "functional areas of management" (10 Marks) 2 List out the role of a manager. (10 Marks) Explain "principles of organization" in detail. (15 Marks) Write a short note on the concept of management by exception. (05 Marks) Explain the following leadership styles in short: (i) Autocratic (ii) Democratic (iii) Laissez-faire (06 Marks) b. What are the findings of Hawthrone experiments? Explain. (07 Marks) Explain "Maslow's Hierarchy of Needs Theory" with the help of hierarchy diagram. (07 Marks) 5 Write a short note on "CFD" (10 Marks) b. ICICI bank is offering a Rs.30 lakhs home loan to a person to buy a new apartment at a interest rate of 7.5% compounded annually. This amount should be repaid in 15 yearly equal installments. Find the annual installment amount the person has to pay to the bank. (10 Marks) Derive the following compound interest formulae from first principles with usual notation.

- - Single payment compound interest i.e. $F = P(1+i)^n$
 - Equal payment compound amount, $F = A \left[\frac{(1+i)^n 1}{i} \right]$ ii)
 - Equal payment series present worth amount, $P = A \left[\frac{(1+i)^n 1}{i(1+i)^n} \right]$ (15 Marks)
 - Write a short note on (i) S.I. (05 Marks)
- a. A person wanted to buy a motorbike to his son. Upon down payment the motor bike would cost him Rs.55,000 while in the installment scheme, he has to pay an EMI of Rs.900 for 10 years at the rate of interest of 14%, to pay an EMI of Rs.900 for 10 years at the rate of interest of 14%, compounded monthly. Suggest the person which scheme is more (10 Marks)
 - What do you meant by "Rate of Return"? Explain its types in short. (10 Marks)
- Explain the following: 8
 - (i) Economic life

- (ii) Accounting life
- (iii) Ownership life of service life
- (iv) Asset's life

(10 Marks)

'Megha' electronics is considering the purchase of a new programmable circuit to improve its product quality. The equipment has a first cost of Rs.85,000 and the salvage value is predicted to be Rs.6000 after a service life of 5 years. Maintenance and operating costs are expected to be Rs.8000 for the first year of operation and increased by Rs.1500 per year for each additional year of use. Using an interest rate of 10%, determine what annual savings must be obtained through the use of this equipment to make it economically justifiable. (10 Marks)

Estimate the weight of the following component which is made of 6061 aluminium alloy whose density is 2700 kg/m³. If it costs Rs.320 per kg of 6061 in the market, what is the 9 estimated cost of the component?

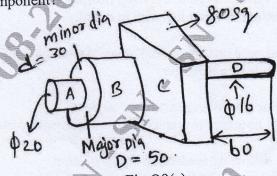


Fig.Q9(a)

(10 Marks)

(10 Marks)

Explain "IDLING TIME" in detail.

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(10 Marks)

Explain various causes of depreciation in detail. A CNC machine costing Rs.22,00,000 is estimated to serve for 5 years after which its salvage value is estimated to be Rs.2,00,000. Find:

Depreciation during 3rd year by fixed percentage method

Book value of the machine after 2 years by sum of years digits method. (10 Marks)