Reg.No.										

MANIPAL INSTITUTE OF TECHNOLOGY
Manipal University, Manipal – 576 104

SESSIONALS 01
SUBJECT: ESSENTIALS OF MANAGEMENT & ENGINEERING ECONOMICS
(HSS 401)

REVISED CREDIT SYSTEM
(15/9/2015)

Time: 1 Hour. MAX.MARKS: 20

Instructions to Candidates:

- Answer **ALL** the questions.
- Use of **Interest factor table is permitted.**

PART A

1) Which of the following is true concerning technical and managerial skills? **(1)**
   - **i)** Human skills and technical skills remain equally important as managers move to higher levels.
   - **ii)** Technical skills need remain necessary and human skills decrease as managers move to higher levels.
   - **iii)** Human skills remain necessary and technical skills need decrease as managers move to higher levels.
   - **iv)** Both human skill and technical skill needs decrease as managers move to higher levels.
   - **v)** Both human skill and technical skill needs increase as managers move to higher levels.

CO1

2) A plan that is future oriented and forms the hub of fulfilling the vision is called ---------. **(1)**
   - **i)** Directional plan
   - **ii)** Specific plan
   - **iii)** Short-term plan
   - **iv)** Strategic plan

CO1

3) Which of the following is not a part of "controlling function"? **(1)**
   - **i)** Measuring results against standard objectives
   - **ii)** Explaining routines
   - **iii)** Taking corrective action
   - **iv)** Setting standards

CO2

4) List any two key result areas (other than profitability) for setting the objectives by top level managers in industrial business. **(1)**

CO1

5) The Top Level Management of an educational institute has increased the student intake as per the AICTE approval. Locally located restaurant has considered this news as an opportunity and set an objective "To increase sales by Rs. 50,000 during the financial year 2015-16". Though it was sure of retaining its old customers, it decided to create the awareness regarding restaurant by distributing the pamphlets, to new comers. Job specification was prepared, three young men were recruited accordingly with the help of recruiting agency, and salary and incentive details were explained after providing the required training. Work was assigned; required facilities were provided. The trained men started distributing the pamphlets by standing in the predefined locations. Incentives were offered to improve their effectiveness by the restaurant management. Pamphlet distribution was stopped after ensuring the additional sales as per the plan. **(2½)**

CO1

Define the managerial functions. List the appropriate activities under each managerial function performed by the restaurant management in the above explanation.

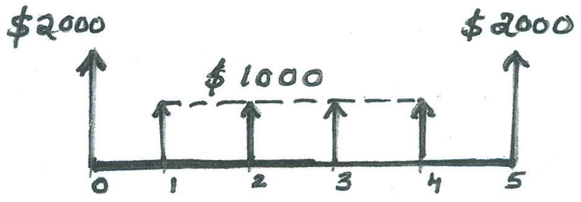
6) Prof. Dr. Peter, from Indian Engineering College (IEC), Mumbai attends an International Conference on Current Trends in Engineering Education, in Japan. During the conference, he speaks to many other participants about the way they design their curriculum in their countries and shares his views with them. Prof. Dr. Peter realizes that most of the colleges in other countries have introduced a concept of Open Electives in their curriculum. After coming back to IEC, he speaks to the college management and other Heads of the Departments and convinces them about the benefits of introducing Open Electives concept in the Engineering Curriculum. IEC introduces open electives in their curriculum and this move is widely appreciated by the students and also by the companies that come to IEC for placements. Which managerial roles as stated by Mintzberg did Prof. Dr. Peter play at each stage and in total in this case? **(1½)**

CO1

CO1 7) Explain "Portfolio Matrix" for developing strategies. **(2)**

PART B

8) You want to find the equivalent present worth for the following cash flow series at an interest rate of 15%. Which of the following statements is incorrect? **(01)**



CO3

i) $1000(P/A,15%,4) + 2000 + 2000(P/F,15%,5)
ii) $1000(P/F,15%,5) + 1000(P/A,15%,5) + 2000
iii) [$1000(F/A,15%,5) + 1000] * (P/F,15%,5) + 2000
iv) [$1000(F/A,15%,4) + 2000] * (P/F,15%, 4) + 2000

9) A series of equal quarterly deposits of $1,000 extends over a period of three years. It is desired to compute the future worth of this quarterly deposit series at 12% compounded monthly. Which of the following equations is correct for this operation? **(01)**

CO3

i) F = 4($1,00O)(F/A, 12%, 3)
ii) F = $1,00O(F/A, 3%, 12)
iii) F = $1,00O(F/A, 1%, 12)
iv) F = $1,00O(F/A, 3.03%, 12)

10) Part of the income that a machine generates is put into a sinking fund to replace the machine when it wears out. If $1,500 is deposited annually at 7% interest, how many years must the machine be kept before a new machine costing $30,000 can be purchased? **(2)**

CO3

11) You want to open a savings plan for your future retirement. You are considering the following two options: **(3)**

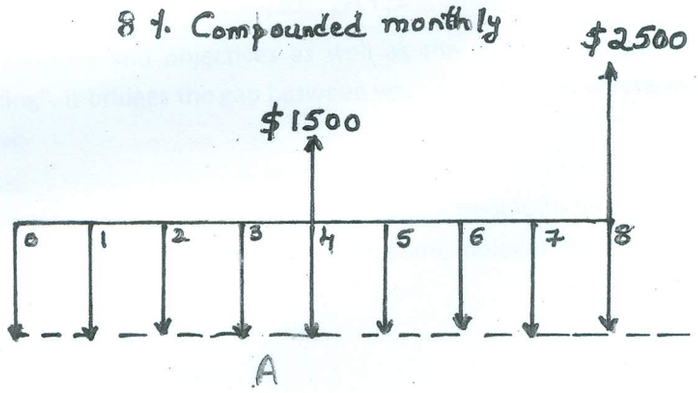
Option 1: You deposit $1,000 at the end of each quarter for the first 10 years. At the end of 10 years, you make no further deposits, but you leave the amount accumulated at the end of 10 years for the next 15 years.

Option 2: You do nothing for the first 10 years. Then you deposit $6,000 at the end of each year for the next 15 years.

If your deposits or investments earns an interèst rate of 12% compounded quarterly. Which is the best retirement plan?

CO3

12) What is the amount of the quarterly deposits A, such that you will be able to withdraw the amounts in the cash flow diagram if the interest rate is 8% compounded monthly? **(3)**



CO3

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