BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: BE/BARCH **SEMESTER : VI**
BRANCH: ALL **SESSION : SP/17**

SUBJECT: PE6009-ENGINEERING ECONOMY

TIME: 03:00 **FULL MARKS: 60**

INSTRUCTIONS:
1. The question paper contains 7 questions each of 12 marks and total 84 marks.
2. Candidates may attempt any 5 questions maximum of 60 marks.
3. The missing data, if any, may be assumed suitably.
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
6. Nothing should be written on front or back of the question paper except tick marking.

Q.1(a) Define Accounting. State its functions. How does it differ from book- keeping? [8]
(b) Explain the concept of opportunity cost with suitable example. [4]

Q.2 What are the accounting concepts and conventions? Name them and explain any two accounting concepts & two conventions in detail with the help of suitable example. [12]

Q.3(a) Explain the different categories in which the accounting transactions can be classified. Also state the rule of "debit & credit" in this connection. [8]
(b) What is a trial balance? State the different methods of preparation of a trial balance. [4]

Q.4 What is break- even analysis? Discuss the different assumptions that should be made while plotting a break-even chart. Describe the procedural steps for preparing the break-even chart. [12]
Following details are available;

	Sales(Rs)	Profit(Rs)
Period-I	2,00,000	20,000
Period-II	3,00,000	40,000

Find out break-even sales and P/V ratio.

Q.5 Explain the term depreciation with suitable example. State the methods of calculating depreciation. Does the depreciation generate enough funds to replace the assets? [12]
A machine costing Rs. 24000 was purchased on 1 December 2005. The installation and erection charges were Rs. 1000 and its useful life is expected to be ten years. The scrap value of the machine at the end of the useful life is Rs. 5000. Calculate the yearly depreciation by straight line method.

Q.6 Describe the different factors which are responsible to replace the equipment although it may be running. Also describe the various types of replacement situations. [12]
The cost of an equipment is Rs. 62000 and its scrap value is Rs. 2000. The life of the equipment is eight years. The maintenance cost for each year are as given below:

year	1	2	3	4	5	6	7	8
Maintenance cost in Rs.	1000	2000	3500	5000	8000	11000	16000	24000

When the equipment should be replaced?

Q.7 Explain the following: [12]
(i) Time value of money.
(ii) Cost structure.
(iii) Decision criteria for selection of investment proposals.
(iv) Ratio analysis.

*******03/05/17******M**