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**UNIVERSITY OF PETROLEUM
AND ENERGY STUDIES**



End Semester Examination – March, 2017

Program/course: MBA – Urban Infrastructure & Development

Semester – II

Subject: Utilities & Energy Management & Regulations

Max. Marks : 100

Code : MDSI 883

Duration : 3 Hrs

No. of page/s: 03 pages

- Assume any data if not available.

Section – A

(1 x 20 = 20 marks)

Question 1: State whether the following statements are **true or false**:

(Each question carries **1 mark**)

- i. The water (Prevention and control of pollution) act was made in 1974
- ii. The Air (Prevention and control of pollution) act was made in 1981
- iii. The Environment (Protection) act was made in 1986
- iv. India has more than 18% of population of world and only 4% of world renewable water resources
- v. The availability of fresh water in the world is only 3% rest is all saline water
- vi. National water policy was issued in the year 2012.
- vii. At present 50% of annual precipitation is received in just 15 days period.
- viii. Leakage / seepage / and inefficiency are responsible for 50% loss of usable water.
- ix. Water day is celebrated on 22 march every year.
- x. Piped natural gas is cheaper than liquefied petroleum gas.
- xi. First Natural gas is stored in the city and then supplied to homes
- xii. Natural gas is lighter than liquefied petroleum gas
- xiii. The millennium development goal (MDG) is to extend access to improved sanitation to 100 % by 2025
- xiv. The electricity reforms were started in India from the year 1991.
- xv. The. Electromagnetic meters are used for automatic meter readings in Electricity utilities.
- xvi. The power factor of electricity induction meters is unity.
- xvii. Energy conservation act was made in the year 2003.
- xviii. The NELP policy was made in the year 1997 with 100 % FDI

- xix. As per statistics' of CPCB for 2013-14 there are only 553 compost and vermicompost plants exist in India.
- xx. All industrial units using fuel located in the 100 km range from a solid waste based R.D.F. plant has to use at least 5 % of R.D. F. fuel as per policy

Section – B

(4 x 5 = 20 marks)

Attempt all questions. Each question carries **5 Marks**.

- Q. 2. Critically Evaluate the M.S.W. collection to Energy value chain and draw the circle of M.S.W. Sources in India
- Q. 3. Evaluate the salient features of HELP-2016. Explain how it differs with NELP policy
- Q. 4. Explain in detail the national urban sanitation policy-2008
- Q. 5. Evaluate the salient features of Electricity Conservation act-2001

Section – C

(6 x 5 = 30 Marks)

Attempt all **questions**. Each question carries **5 Marks**.

- Q. 6. How P.N.G. is safer than L.P.G. Explain with Diagram the national gas distribution segment?
- Q. 7. Critically evaluate the salient features of solid waste management rules-2016.
- Q. 8. Evaluate the details of five periods of Power sector reforms in India.
- Q. 9. Analyze the salient features of national water policy -2012
- Q. 10. Draw the block diagram of generic elements of planning implementation and M&E of city wide Sanitation and explain it.
- Q.11. What are the advantage of rain water harvesting explain the components of rainwater harvesting system?

Section – D

(2x 15= 30 Marks)

Attempt any two **questions**. Each question carries **15 marks**.

Q. 12 (a) Draw the L.N.G. Terminals and gas pipe lines diagram in India. Explain the details of gas distribution structure of Indraprastha gas in Delhi

(b) Critically evaluate the potential environmental impact from solid waste management activities

Q. 13 Two Lamps are to be compared.

(a) Cost of first lamp is Re. 1 and it takes 100 watts.

(b) Cost of second lamp is Rs 4 and it takes 60 watts.

Both lamps are of equal candlepower and each has a useful life of 1000 hours. Which lamp will?

Prove economical if the energy is charged at Rs 70 per kW of maximum demand per year plus

Paisa per kWh? At what load factor both the lamps will be equally advantageous?

Q.14 (a) Explain the strategies adopted for sustainable development of water resources in India

(b) What is R.D.F., Describe its commercial use in industries, draw the waste to energy plant diagram and explain it.

The End