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Question Paper Code: 59051

B.E./B.Tech. DEGREE EXAMINATION, DEC 2020

Interdisciplinary Elective Course

Mechanical Engineering

15UGM951 – SMART MANUFACTURING

(Common to Information Technology)

(Regulation 2015)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. Which country coined the term 'Industry 4.0' CO1- R
(a) India (b) China
(c) Canada (d) Germany
2. Cloud computing related with _____ CO1- R
(a) Industry 1.0 (b) Industry 2.0 (c) Industry 3.0 (d) Industry 4.0
3. _____ is not an example of additive manufacturing. CO2- R
(a) CNC (b) SLA (c) SLS (d) DMLS
4. _____ is known as the processes of extracting knowledge or design information from anything man-made and reproducing it based on the extracted information. CO2- R
(a) Re- Engineering (b) Reverse Engineering
(c) Both (a) and (b) (d) none of the above
5. Which of the following work is done by General purpose robot? CO3- R
(a) Part picking (b) Welding (c) Spray painting (d) All of the above
6. The main objective(s) of Industrial robot is to CO3- R
(a) To minimize the labour requirement (b) To increase productivity
(c) To enhance the life of production machines (d) All of the above

7. What is the size of the IPv6 addressed? CO4- R
 (a) 32 bits (b) 64 bits (c) 128 bits (d) 256 bits
8. Which is the input in IoT value chain? CO4- R
 (a) Devices/Sensors (b) Open Data (c) Corporate Databases (d) All the above
9. Example for private cloud vendor _____ CO5- R
 (a) Eucalyptus (b) Open nebula (c) Both a & b (d) None of the above
10. Cloud bursting used in _____ CO5- R
 (a) Private cloud (b) Public cloud (c) Hybrid cloud (d) All the above

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Explain about CPS and IoT.. CO1-U (8)
12. What is meant by additive manufacturing? Explain about Selective Laser Sintering method with neat sketch and mention the advantages and disadvantages of this method. CO2-U (8)
13. Explain about robot applications in material transfer and machine loading. CO3-U (8)
14. Examine the applicability of future ICT-empowered interaction in rich Smart Grid. CO4- App (8)
15. Compare any four IaaS providers with respect to hypervisor technology, billing, scaling, and processor and API access. CO5- Ana (8)