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**Question Paper Code: 49718**

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2018

Elective

Mechanical Engineering

14UME918- PRODUCTION PLANNING AND CONTROL

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

PART A - (10 x 1 = 10 Marks)

(Answer all Questions)

1. The correct sequence of operation in production planning and control is CO1- R
  - (a) Routing-Scheduling-Dispatching-Follow up
  - (b) Scheduling-Routing-Dispatching-Follow up
  - (c) Dispatching-Routing-Scheduling-Follow up
  - (d) Routing-Scheduling-Follow up-Dispatching
  
2. Mass production is characterized by CO1- R
  - (a) Low volume high variety
  - (b) High volume low variety
  - (c) High volume low variety
  - (d) Low volume low variety
  
3. Work study examines CO2- R
  - (a) Method
  - (b) Duration of work
  - (c) Both (a) and (b)
  - (d) None of the above

4. Work study consists of CO2- R
- (a) Effective use of plant and equipment      (b) Effective use of human effort
- (c) Evaluation of human work      (d) All of the above
5. Value analysis examines the CO3- R
- (a) Design of every components      (b) Method of manufacturing
- (c) Material used      (d) All of the above
6. The cost reduction technique in comparison to the worth of a product is known as CO3- R
- (a) Reverse engineering      (b) Value engineering
- (c) Material engineering      (d) Quality engineering
7. Master schedule is prepared for CO4- R
- (a) Single product continuous production      (b) Multi product batch production
- (c) Assembly product continuous production      (d) Single product batch production
8. Loading may be defined as CO4- R
- (a) Sending the raw material to the machine
- (b) Sending the finished material to the store
- (c) Assign the work to the facilities
- (d) Uploading a software in machine control panel
9. Which of the following is not an inventory CO5- R
- (a) Machines      (b) Raw material      (c) Finished products      (d) Consumable tools

10. The cost of insurance and taxes are included in CO5- R
- (a) Cost of ordering    (b) Set up cost    (c) Inventory carrying cost    (d) Cost of shortages

PART – B (5 x 2= 10Marks)

11. What is Break-Even Analysis? CO1- R
12. What is meant by Work Measurement? CO2- R
13. Define the term Product Planning. CO3- R
14. What are the functions of dispatching? CO4- R
15. List any four objectives of inventory control. CO5- R

PART – C (5 x 16= 80Marks)

16. (a) Write short notes on CO1-App    (16)
- (i) Routing
  - (ii) Loading
  - (iii) Scheduling
  - (iv) Dispatching
  - (v) Expediting

Or

- (b) Explain different types of production systems. Differentiate between them. CO1-App    (16)
17. (a) What are the various symbols of process chart? Explain them briefly. CO2-App    (16)

Or

- (b) Write a short notes on the following work measurement CO2-Ana (16)  
techniques
- (i) Work sampling
  - (ii) Synthetic data and
  - (iii) PMTS
18. (a) What is meant by product planning? Explain, in detail, the CO3- Ana (16)  
various steps involved in the product planning process?
- Or
- (b) Explain the various phases of value engineering. CO3- Ana (16)
19. (a) What are Gantt charts? Explain their types. How are they CO4- U (16)  
constructed?
- Or
- (b) Discuss the concept, inputs, characteristics, working, outputs, and CO4- Ana (16)  
benefits of Material Requirements Planning(MRP).
20. (a) Explain briefly about computerized production planning and CO-5 U (16)  
control system
- Or
- (b) Discuss the various basic elements of JIT that must be addressed CO-5 U (16)  
for successful JIT implementation.