

7. Gantt chart is mostly used for CO4- U
- (a) Routing (b) Scheduling
- (c) Follow up (d) Inspection and quality control
8. The bill of material does not consists of CO4- U
- (a) Part number (b) Specifications of part
- (c) Name of the part (d) Price of the part
9. Choose the following which is not an inventory. CO5- U
- (a) Machines (b) Raw material (c) Finished products (d) Consumable tools
10. The following classes of costs are usually involved in inventory decisions except CO5- U
- (a) Cost of ordering (b) Carrying cost
- (c) Cost of shortages (d) Machining cost

PART – B (5 x 2= 10 Marks)

11. Explain the objectives of production planning CO1- U
12. Distinguish between micro motion and macro motion study. CO2- U
13. State the objectives of line balancing. CO3- U
14. Explain priority sequencing. CO4- U
15. List the seven wastes to target of elimination in a JIT process. CO5- U

PART – C (5 x 16= 80 Marks)

16. (a) A firm has annual fixed costs of Rs.3 million and variable costs of Rs. 8 per unit. It is considering an additional investment of Rs.8,00,000 which will increase the fixed costs by Rs.1,50,000 per year and will increase the contribution by Rs.2.50 per unit. No change is anticipated in the sales volume or the sales price of Rs.16 per unit. What is the break- even quantity if the new investment is made? CO1- App (16)
- Or
- (b) The following are given for a car manufacturing company CO1- App (16)
- estimated output = 80,000 units, Fixed cost = Rs. 40,000,
Variable cost = Rs. 10 per unit, selling price = Rs 20/units.
Find out the break-even point analytically and graphically.

17. (a) Apply the tools and techniques used in the recording phase of method study in a fasteners manufacturing industry. CO2- App (16)
- Or
- (b) Apply the various techniques of work measurement in the packaging unit of a bolt and nut manufacturing industry. CO2-App (16)
18. (a) State about machine balancing. Also explain the effect of balancing on number of machines required with an illustration. CO3- App (16)
- Or
- (b) Discuss about the Machine Capacity along with its machine requirements. CO3- App (16)
19. (a) What are Gantt charts? Explain their types? How are they constructed? CO4- App (16)
- Or
- (b) What is priority sequencing? Explain any six priority rules used for job sequencing CO4- App (16)
20. (a) List and explain the different types of cost in inventories system. CO5- App (16)
- Or
- (b) Discuss the various basic elements of JIT that must be addressed for successful JIT implementation. CO5- App (16)

