Register Number: ……..

**B.TECH. DEGREE EXAMINATIONS: APRIL/MAY 2012**

Sixth Semester

**FASHION TECHNOLOGY**

FTY115: Apparel Production Planning and Control

**Time: Three Hours** **Maximum marks: 100**

**Answer ALL Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. Function of production control department is to

A. Create new Product Design B. Minimize the production time

C. Market the product D. Minimize the Breakdown

2. Sequence of activities in a production control is

A. Planning, analyzing, forecasting, supervising and deputizing

B. Forecasting, planning, deputizing, analyzing and supervision

C. Analyzing, forecasting, planning, deputizing and supervising

D. Supervising, forecasting, analyzing, planning and deputizing

3. Which one of the following is much influenced by the type of layout?

A. Production Labour B. Transportation Labour C. Inventory cost D. Product Quality

4. The first step in constructing a flow chart is

A. Identifying the type of Machine required C. Identifying the type of operation

C. Listing the Garment Break down D. Calculating the operational time

5. In a complete whole garment production the number of Sewing machine will be

A. Equal to the No. of Garment Break down B. More than the No. of Garment Break down

C. Less than the No. of Garment Break down D. One machine in each kind

6. Usually Bundle ticket will be prepared by _____ Department

A. Sewing Department B. Planning Department

C. Cutting Department D. Pay role Department

7. MRP in production Planning refers to

A. Maximum Retail Price B. Material requirement planning

C. Manufacture Resources Planning C. Management Representative

8. The concept Just–in time refers to

A. Pull system B. Layout type C. Focus to Quality D. Flexible system

9. Line balancing means

A. Arrangement of Garment B. Arrangement of Machine

C. Arrangement of Manpower D. Arrangement of Raw material

10. A balanced production system means

A. Equal no of workers / every machine

B. Sufficient workers to produce unit product / unit time

C. All grid stations produce different amount / unit time

D. Equal no of operations / every worker

**PART B (10 x 2 = 20 Marks)**

11. What are the steps involved in product development?
12. List the objectives of production control department.
13. Define Plant Layout.
14. List the types of production layout suitable for apparel Industry.
15. Give the suitability of complete whole garment production system.
16. List the types of fabric spreading methods.
17. List few inventory control concepts followed in apparel industry.
18. Mention the use of GANTT chart in apparel industry.
19. List the factors influencing calculation of machinery requirements.
20. What is meant by Bottle Neck Operation?

**PART C (5 x 14 = 70 Marks)**

21.a) Enumerate the function of production control in analysis of qualitative and quantitative production.

**(OR)**

b) Define prototype, give it's purpose and elaborate on the steps that are involved in its development.

22. a) With a suitable example explain the steps involved in developing a production layout for a group of styles.

**(OR)**

b) Explain the Criteria for evaluating plant layout.

23. a) Elaborate on the Progressive bundle production system and give its advantages and disadvantages.

**(OR)**

b) (i) Discuss in detail types of spreads and various spreading methods. (10)

(ii) Explain in detail the factors affecting economic cut quantity. (4)

24. a) Elaborate on Just-in-time manufacturing concept and compare it with MRP II.

**(OR)**

b) With an examples discuss about the cutting and bundle control forms.

25. a) Calculate the machinery and man power requirements for setting up a new factory to produce 1,20,000 (Baby frock) pieces per month. Calculate manpower and machinery requirements with attachment starting from spreading and to packing.

**(OR)**

b) For the following production grid chart for men's formal shirt calculate the no. of operators and helpers required.

| Operation | **Op. Time** | **Thread change** | **Fatigue** | **Others** | **Bundle** | **Total Op** | **Target / day** |
|---|---|---|---|---|---|---|---|
| | secs | 15% secs | 10% secs | 5 % secs | open/close | Time secs | pcs |
| Yoke – label attach | 20.0 | 3.0 | 2.0 | 1.0 | 2.5 | 28.5 | 1000 |
| Back – yoke attach | 15.0 | 2.25 | 1.5 | 0.75 | 2.5 | 22 | |
| Collar run stitch | 38.0 | 5.7 | 3.8 | 1.9 | 2.5 | 51.9 | |
| Collar form | 10.0 | 1.5 | 1.0 | 0.5 | 2.5 | 15.5 | |
| Collar band attach | 14.0 | 2.1 | 1.4 | 0.7 | 2.5 | 20.7 | |
| Cuff top stitch | 30.0 | 4.5 | 3.0 | 1.5 | 2.5 | 41.5 | |
| Left front stitch | 32.0 | 4.8 | 3.2 | 1.6 | 2.5 | 44.1 | |
| Right front stitch | 12.0 | 1.8 | 1.2 | 0.6 | 2.5 | 18.1 | |
| Pocket attach | 50.0 | 7.5 | 5 | 2.5 | 2.5 | 67.5 | |
| Front button hole | 60.0 | 9.0 | 6.0 | 3.0 | 2.5 | 80.5 | |
| Front button fix | 80.0 | 12.0 | 8.0 | 4.0 | 2.5 | 106.5 | |
| **Assembling** | | | | | | | |
| Shoulder attach | 36.0 | 5.4 | 3.6 | 1.8 | 2.5 | 49.3 | 1000 |
| Collar attach | 48.0 | 7.2 | 4.8 | 2.4 | 2.5 | 64.9 | 1000 |
| Sleeve attach | 100.0 | 15 | 10 | 5 | 2.5 | 132.5 | 1000 |
| Side seam – feed of arm | 60.0 | 9.0 | 6.0 | 3.0 | 2.5 | 80.5 | 1000 |
| Cuff attach | 66.0 | 9.9 | 6.6 | 3.3 | 2.5 | 88.3 | 1000 |
| Bottom hem | 30.0 | 4.5 | 3.0 | 1.5 | 2.5 | 41.5 | 1000 |

**********