

**Scheme – I**  
**Sample Question Paper**

**Program Name** : Diploma in Fashion and Clothing Technology  
**Program Code** : DC  
**Semester** : Fifth  
**Course Title** : Production Management in Garment Industry  
**Max. Marks** : 70

22573

**Time : 3 Hrs.**

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**Instructions:**

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full / Maximum marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers/ attempt the questions in sequential order.

**Q.1) Attempt any FIVE of the following.**

**10 Marks**

- a) Define time study.
- b) Define 'ergonomics'.
- c) Classify control charts.
- d) State objectives of PPC.
- e) Define types of floats.
- f) Define maintenance.
- g) Suggest type of maintenance for pressing equipment.

**Q.2) Attempt any THREE of the following.**

**12 Marks**

- a) Draw man-type process flow chart for collar making.
- b) Enlist macro and micro level PPC functions and explain any one.
- c) Give Fulkerson's rule for network construction.
- d) Explain graphical representation of break-even point.

**Q.3) Attempt any THREE of the following.**

**12 Marks**

- a) State one example of each type of allowance.
- b) Give formulae to calculate CL, LCL and UCL for X-bar and R-bar chart.
- c) Analyze the production cost factors for basic formal shirt.
- d) Describe procedure to calculate maintenance cost index with suitable example.

**Q.4) Attempt any THREE of the following.****12 Marks**

- Write any 4 applications of ergonomics in garment industry.
- Differentiate between CPM and PERT.
- Give significance of profit-volume ratio and graph in break-even analysis.
- Explain cost classification with suitable examples.
- Give procedure to evaluate maintenance performance in sewing department.

**Q.5) Attempt any TWO of the following.****12 Marks**

- Calculate standard time for following data-

Elements	Cycle Time in min.		
	1	2	3
A	1.5	6.0	11.6
B	2.1	6.7	12.2
C	4.6	10.0	14.7

Take allowances 17% and PR 90%.

- Give formulae to calculate CL, UCL and LCL for  $p$ ,  $nP$  and  $c$  charts.
- A small project is composed of time activities whose estimates are given below-

Activity	A	B	C	D	E	F	G	H	I
To	2	2	4	2	2	3	2	5	3
Tm	2	5	4	2	5	6	5	8	6
Tp	8	8	10	2	14	15	8	11	15

Activities A, B and C can start simultaneously. Activity D follows activity A while E follows B. D and E are followed by G while F is dependent on C. H depends on D and E. I depend on F and G.

Calculate expected project duration.

**Q.6) Attempt any TWO of the following.****12 Marks**

- Explain the steps for forward and backward computations in CPM with relevant example.
- Explain advantages and limitations of break-even analysis.
- Describe various costs of maintenance and state advantages of maintenance.

**Scheme – I**  
**Sample Test Paper - I**

**Program Name** : Diploma in Fashion and Clothing Technology  
**Program Code** : DC  
**Semester** : Fifth  
**Course Title** : Production Management in Garment Industry  
**Max. Marks** : 20

22573

**Time : 1 Hour**

**Instructions:**

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full / Maximum marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers/ attempt the questions in sequential order.

**Q.1 Attempt any FOUR.**

**08 Marks**

- a) Define method study.
- b) Define ergonomics.
- c) Enlist the types of allowances in work study.
- d) State purpose of control charts for attributes.
- e) Define PPC.
- f) Write significance of acceptance sampling.

**Q.2 Attempt any THREE.**

**12 Marks**

- a) Give man type process flow chart for pocket attaching.
- b) Explain steps in time study.
- c) Explain functions of PPC.
- d) In an automatic filling process, 500gms of certain liquid was to be filled in bags. The permissible variation is + 5gms. for investigating the process capability, 5 bags were taken at random from each batch for 10 successive batches and the following result were found.

Batch	1	2	3	4	5	6	7	8	9	10
Mean gms	501	498	500	503	503	500	497	502	503	496
Range	3	4	2	4	3	5	4	2	6	4

Plot X-bar and R-bar chart.

Take; A2=0.58, D3=0, D4=2.11

**Scheme - I**  
**Sample Test Paper - II**

**Program Name** : Diploma in Fashion and Clothing Technology  
**Program Code** : DC  
**Semester** : Fifth  
**Course Title** : Production Management in Garment Industry  
**Max. Marks** : 20

22573

**Time : 1 Hour**

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**Instructions:**

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full / Maximum marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers/ attempt the questions in sequential order.

**Q.1 Attempt any FOUR.**

**08 Marks**

- a) Define slack of an event.
- b) Enlist types of activities in network analysis.
- c) Define cost.
- d) Give classification of cost.
- e) State objectives of maintenance.
- f) Give significance of TPMP table.

**Q.2 Attempt any THREE.**

**12 Marks**

- a) Give Fulkerson's rule for network construction.
- b) Explain BEP with graphical representation.
- c) Describe types of maintenance in brief.
- d) Construct a network diagram and find out critical path.

Activity	Duration (days)	Immediate Predecessors
A	4	-----
B	2	-----
C	5	A
D	11	A,B
E	8	C
F	3	D
G	2	E,F