

BANGLADESH UNIVERSITY OF TEXTILES

B.Sc. in Textile engineering

Level-3 Term-I, Final Examination-2014

Subject: Application of Computer in Apparel Manufacturing (Code: AME-355)

Time: 2.00 Hrs.

Full Marks-70

(All the parts of a question must be answered consecutively)

Part-A

(Answer any two question)

1. (a) 'n', 'l', 'd', 's', 'B', 'g', 'a', 'e', 'h', 'a', - these characters represent data or information? If data, then form appropriate information. Also differentiate between data and information.
(b) 'To do systems work, one needs to understand the systems concepts and then design the appropriate computer-based systems'- from this statement explain whether system analysis or system design should be done first.
(c) Graphically show the stages of SDLC. [3+4.5+10=17.5]
2. (a) What do you mean by feasibility study?
(b) What is cost/benefit analysis? What are the methods exist to evaluate it? Explain the net-benefit analysis method with an example.
(c) Define data flow diagram (DFD). Differentiate between logical and physical DFD. Draw a physical data flow diagram of university undergraduate admission. [2.5+7+8=17.5]
3. (a) What is software verification? Mention it's importance.
(b) What is software testing? Distinguish between Black Box Test and White Box Test.
(c) What is project management? Mention it's necessary in terms of cost, time and quality. [4.5+8+5=17.5]

Part-B

(Answer any two question)

4. (a) Define database management system. Graphically show the data storage hierarchy used in data processing.
(b) Mention the names of database models. Which database model is mainly used for database design? Show with an example.
(c) With example differentiate between instance and schema.
(d) What is transaction management? What are roles of a database administrator? [5+4.5+3+5=17.5]
5. (a) What is CAD/CAM? Mention the features of CAD/CAM.
(b) Discuss the reasons for the increasing demand behind the CAD/CAM system.
(c) Discuss the historical background of CAD/CAM.
(d) Enlist different suppliers for CAD/CAM. [4+6+4.5+3=17.5]
6. (a) Describe the uses of CAD/CAM in Lay planning and marker making.
(b) What is critical path? How could you improve the lead time by making a project critical path?
(c) What is linear programming? Mention it's importance in project management. [6+6+5.5=17.5]

BANGLADESH UNIVERSITY OF TEXTILES

B. Sc. in Textile Engineering

Level-3 Term-I, Final Examination-2015

Subject: Application of Computer in Apparel Manufacturing (Code: AME 355)

Time: 2.00 Hrs.

Full Marks: 70

(Use separate answer script for Part: A and Part: B)

(All parts of a question must be answered consecutively)

Part: A

(Answer any two questions)

1. (a) Differentiate between system analysis and design.
(b) Graphically show the system development life cycle.
(c) "Project management objectives are defined in terms of expectations of time, cost and quality"- Explain the statement with example.

[3+10+4.5=17.5]

2. (a) What do you mean by feasibility study? Briefly describe the three key factors of feasibility analysis.

- (b) What is the payback period for the following scenario?

Elements:

(A) Capital investment in a new computer	\$350,000
(B) Investment credit difference (100% - 12% investment credit)	88%
(C) Cost investment (site preparation)	\$20,000
(D) Company's income tax bracket difference (100% - 26%)	74%
(E) State and local taxes	4%
(F) Life of capital (no salvage value)	7 year
(G) Time to install system	2 year
(H) Benefits (include escalation or inflation)	\$450,000

- (c) Draw the symbols used in data flow diagram (DFD) with their conventional meaning.

[6.5+7+4=17.5]

3. (a) Discuss about the advantages of Database Management System (DBMS) if applied to apparel industry.

- (b) What is critical path? Define the following terms in case of critical path analysis:

- (i) Earliest Start Time (ES)
(ii) Least Completion Time (LC)
(iii) Total Float (TF)
(iv) Free Float (FF)

- (c) What do you mean by Relational Database? How could you use Relational Database in Textile sector?

[4.5+8+5=17.5]

Part: B

(Answer any two questions)

4. (a) What is CIM? What are the main advantages of using computer in the apparel industry?
(b) Write the flow processes of size table creation for the Lectra Modaris with example for Numeric and Alphabetic product sizes.
(c) Write down the application of ICT for the creation of commercial apparel products in the pre-production, production and post-production phases.

[4.5+5+8=17.5]

5. (a) Suppose, you are the factory GM & require to buy new CAD system. Mention few innovation CAD features that you expect and are required for smooth apparel production.
(b) Apparel industry need sophisticated and computerized technology based CAD, CAM and CIM to meet deadlines for volumes, quality and quick delivery of products. Explain the statement with specific examples.
(c) "Enterprise Resources Planning (ERP) is highly essential for modern sustainable apparel manufacturing plants" – Explain the statement with specific application field in context of Bangladeshi apparel industry.
(d) Write briefly on 3D pattern visualization by Gerber CAD program.

[4+5+6+2.5=17.5]

6. (a) Define database management system. Graphically show the data storage hierarchy used in data processing.

- (b) Define the terms: primary key, foreign key, relational database, SQL, DML, DDL

- (c) What do you mean by data model? Illustrate entity-relationship (ER) data model.

[5.5+6+6=17.5]

BANGLADESH UNIVERSITY OF TEXTILES

B. Sc. in Textile Engineering

Level-3 Term-I, Final Examination-2017

Subject: Application of Computer in Apparel Manufacturing (Code: AME 355)

Time: 2.0 Hrs.

Full Marks: 70

(Use separate answer script for Part: A and Part: B)
(All parts of a question must be answered consecutively)

Part: A

(Answer any two questions)

- (a) Define system analysis and design? Why is it so important for any system.
(b) Write down the properties of system and describe them.
(c) State the categories of information and describe them with proper diagram.
(d) What is SLDC? Explain the phases of SLDC.

[2.5+5+6+4=17.5]

- (a) Student Table is given below :

ID	Name	Dept	Age	cgpa	gender
1	Fatima	AE	23	3.75	F
2	Zaman	TFD	22	2.96	M
3	Touhid	FE	23	3.45	M
4	Faruk	AE	21	3.12	M
5	Habib	WPE	23	2.76	M
6	Tansim	AE	22	3.67	F
7	Urmi	TFD	20	3.44	F

Write queries for the following requirements

- Show all of the rows and columns of the table.
 - Show ID, Name, Dept and cgpa column from the table.
 - Faruk's inputted cgpa is wrong. His actual cgpa is 3.33. Correct it.
 - Delete all the students with cgpa below 3.00.
- (b) "select* from student order by cgpa" if run the query what will be the output table?
(c) If we want to add another column NID, what will be the query?

[8+5.5+4=17.5]

- (a) What is software verification and validation? Write down its importance's.
(b) What is cost/benefit analysis? What are the methods to evaluate it? Explain the net-benefit analysis method with example.
(c) List down the basic SQL statements and describe any three of them.

[3.5+6+8=17.5]

Part: B

(Answer any two questions)

- (a) What is CIM? What are the main advantages of using computer in textiles, apparels and fast fashion industry?
(b) Mention few latest applications of electronic textiles. Write short note on wearable smart shirt as an example of intelligent garment.
(c) Point out the application of Computer and information technology in the creation of commercial apparel products during the pre-production, production and post-production phases.

[4.5+6+7=17.5]

- (a) Write the typical flow process of pattern grading of a t-shirt with the help of Lectra Modaris.
(b) Apparel industry need sophisticated and computerized technology based CAD, CAM and CIM to meet deadlines for volumes, quality and quick delivery of products. Explain the statement with specific examples.
(c) Write few innovative features of Optitex CAD software in case of 3D pattern creation, customization and simulations for a perfect garments fit.
(d) What is ERP? Mention the functional areas of ERP in the textiles, apparel and fashion industry aspects.

[3.5+4+4+6=17.5]

- (a) Mention the necessity of automation, robotic technology and artificial intelligence in context of Bangladeshi textiles and apparel industry.
(b) Write a short note on simulation and importance of simulation on textile sectors.
(c) What are the advantages of 3-D body scanning? Write down the procedure of point cloud reducing in 3-D body scanning for making a perfect fitted garment.
(d) Mention the name of various hardware and software IT Infrastructures in garments sector. What are the IT related problems in the garments industry of Bangladesh? Also suggest remedies.

[4.5+4+4+5=17.5]