

EXAMINATION SCRIPT

STUDENT NO.

1 6 0 5 0 0 4



DEPARTMENT:

CSE

BANGLADESH UNIVERSITY OF
ENGINEERING AND TECHNOLOGY

COURSE NO.	CSE325	DATE	20-01-2021
COURSE TITLE	Information System Design		

SECTION B

Declaration on the Online Course Conduct by Undergraduate Student of BUET for
COVID-19 Situation

Please write the declaration (as per no. 2 of 'Instructions' given in the footer) below in your own handwriting and sign it.

On my honour, I bearing Student No.....1605004..... hereby declare that,
I shall not misuse, in any form or method, the course materials including Lecture Notes, Reading Materials, Audio and Video Records of the lectures of this course. I shall not adopt any unfair means during the Final Examination and shall not receive any help or offer/ provide help to anyone. I shall preserve hard copy and soft copies of the answer scripts and will not expose the same to any person/media/party. I agree to accept any punitive measure taken by BUET Authority if at any time during or after the completion of the course it is revealed/ violated otherwise.

Signature.....Redwan.....

Date.....20-01-2021.....

Instructions

1. Clearly enter your Student ID, Course Number, Course Title, and Date in the space provided. Complete the declaration exactly as below with your signature and date. You can also insert the scanned image of your handwritten declaration in this box.
2. Declaration: I shall not misuse, in any form or method, the course materials including Lecture Notes, Reading Materials, Audio and Video Records of the lectures of this course. I shall not adopt any unfair means during the Final Examination and shall not receive any help or offer/ provide help to anyone. I shall preserve hard copy and soft copies of the answer scripts and will not expose the same to any person/party/media. I agree to accept any punitive measure taken by BUET Authority if at any time during or after the completion of the course it is revealed/ violated otherwise.
3. Do not put your name or any other form of identification except the Student No. anywhere in the answer script.
4. Use normal/offset white paper preferably of A4 size for writing the answers. Use only one side of the paper for writing. On each page, clearly write your Student ID and Page numbers.

Ans. to Ques 7

(a) (i)

There are 4 paths in total.

path-1:

10-A-20-B-30-D-50-G-60-H-70-I-80 (22 ^{weeks} ~~days~~)

path-2:

10-C-30-D-50-G-60-H-70-I-80 (19 weeks)

path-3:

10-A-20-B-30-E-40-F-60-H-70-I-80 (19 weeks)

path-4:

10-C-30-E-40-F-60-H-70-I-80 (¹⁶~~19~~ weeks)

(ii)

Critical Path:

10-A-20-B-30-D-50-G-60-H-70-I-80

(22 weeks)

(iii)

Initial Time Table:

Task	Time	Cost
A	2	400
B	2	600
C	2	500
D	2	700
E	0	1000
F	0	1000
G	0	300
H	0	800
I	1	900

x
 x
 x
 x

} cannot Use

Initially Paths are:

 $10 - A(2) - 20 - B(2) - 30 - D(2) - 50 - 60 - 70 - I(1) - 80$
 $10 - C(2) - 30 - D(2) - 50 - 60 - 70 - I(1) - 80$
 $10 - A(2) - 20 - B(2) - 30 - 40 - 60 - 70 - I(1) - 80$
 $10 - C(2) - 30 - 40 - 60 - 70 - I(1) - 80$

↑
 (time remaining for expediting)

#1605004

3

Expediting Table:

Eligible activities	Activity Chosen	Path with Time	Cost	Total Cost
		10-A-20-B-30-D-50--60--70-I-80 (22 weeks) 10-C-30-D-50--60--70-I-80 (19) 10-A-20-B-30--40--60--70-I-80 (19) 10-C-30--40--60--70-I-80 (16)	0	0
A, B, D OR I	A	10-A-20-B-30-D-50--60--70-I-80 (21) 10-C-30-D-50--60--70-I-80 (19) 10-A-20-B-30--40--60--70-I-80 (18) 10-C-30--40--60--70-I-80 (16)	400	400
A, B, D OR I	A	10--20-B-30-D-50--60--70-I-80 (20) 10-C-30-D-50--60--70-I-80 (19) 10--20-B-30--40--60--70-I-80 (17) 10-C-30--40--60--70-I-80 (16)	400	800
B, D OR I	B	10--20-B-30-D-50-60--70-I-80 (19) 10-C-30-D-50--60--70-I-80 (19) 10--20-B-30--40--60--70-I-80 (16) 10-C-30--40--60--70-I-80 (16)	600	1400
(B and C) OR D OR I	D	10--20-B-30-D-50--60--70-I-80 (18) 10-C-30-D-50--60--70-I-80 (18) 10--20-B-30--40--60--70-I-80 (16) 10-C-30--40--60--70-I-80 (16)	700	2100

Eligible Act.	Chosen Act.	Path with Time	Cost	Total Cost
(B and C) or D or I	D	10--20-B-30-D-50--60--70-I-80 (17) 10-C-30-D-50--60--70-I-80 (17) 10--20-B-30--40--60--70-I-80 (16) 10-C-30--40--60--70-I-80 (16)	700	2800
(B and C) or I	I	10--20-B-30--50--60--70--80 (16) 10-C-30--50--60--70--80 (16) 10--20-B-30--40--60--70--80 (15) 10-C-30--40--60--70--80 (15)	900	3700
B and C	B and C	10--20--30--50--60--70--80 (15) 10-C-30--50--60--70--80 (15) 10--20--30--40--50--70--80 (14) 10-C-30--40--60--70--80 (14)	500 + 600 = 1100	4800

Final Critical is : all the paths.

10-20-30-50-60-70-80 (15 weeks)

10-30-50-60-70-80 (15 weeks)

~~10-20-30-40-60-70-80 (15 w)~~

~~10-30-40-60-70-80 (15 w)~~

(iv)

If the budget was \$2000, then the project can be expedited to step 3.

Because, step 4 requires \$2100.

(v)

For \$650 per week saving, expediting goes to step 3.

Because, step 4 requires \$700 for a week.

Ans. to Ques 6.

(a)

Distributed Data	Distributed Presentation
Application Logic layer is on the Client.	Application Logic is on the Server.
Gets less network traffic caused due to simple Application Logic requests.	Gets lots of Application Logic requests.
A bit harder to upgrade parts.	Bit easier to upgrade.
App logic parts needs duplication, on clients	App Logic contained only in Server once
Integrity maintainace easier	a bit complex and harder.

(b)

