Bahria University, Islamabad Campus
Department of Software Engineering
Mid Term Examination
Class/Section: BSE-7
(FALL 2020 Semester)
Paper Type: Descriptive

Subject:	**Software Project Management**	Date: 11-12-2020
Course Code:	(SEN 413)	Time: 09:00 hours
Name of Faculty:	Tamim Ahmed Khan	Max Marks: 20
Time Allowed:	90 Minutes	Total Pages: 2 (including this)

INSTRUCTIONS:
    I.   All questions are compulsory.
    II.   The paper is closed book.
    III.   The students are not allowed any helping material (books, tables, formulas, etc).
    IV.   Use blue, black or blue-black ink only.

Name: _____   Enroll No:_____
       (USE CAPITAL LETTERS)

Scenario for Questions 1,2,3 and 4

There is a software development requirement for a university where there would be pages for departments and each department would require tabs for the following:

    – Faculty and staff information
    – Courses related information
    – Time tables and Alumni association

Another important requirement is to have pages for university's partners and HEC and quality assurance related documents. The management is very particular about the home page and the company is expected to present at least 20 different styles from which five would be selected. These five would contribute towards layouts possible in the content management system (CMS). The final requirement is to provide a console where the content could be managed by the systems and networks administrator of the said university. Duration is given as Optimistic – Most Likely – Pessimistic (O–M-P) pattern and Crash cost for each of the activity is given in Column "Crash" and Crash Cost per day is given in Column "$/D".

S#	Activity	Predecessor	Duration O–M-P	Crash	$/D
S	Project Signoff	---			
A	Requirements gathering	S	12–15-18	3 Days	500
B	Prototype development	A	5	1	700
C	Database design	A	5	1	800
D	Sitemap	A	7	2	950
E	Layout design finalization	B,C,D	5	1	200

F	Web pages (15)	E	15	3	400
G	Reports design (5)	E	5	0	-
H	Implementation	F, G	15	3	150
I	Testing/quality assurance	H	10	3	250

Q.1. Please highlight differences between a project plan and the project management plan defining both the terms first. **[CLO 1]**

3

Q.2. Please define Project, Program, and Portfolio considering and providing examples from the above scenario **[CLO 1]**

3

Q.3. Please provide short answers to the following questions **[CLO 2]**

2+2+3

- Please prepare a Schedule using AOA
- Calculate Total duration identifying critical path and
- Please calculate probability that we shall be able to complete project 3 days in advance. Please note that we are not asking for interpretation of Z value from table and only the calculation of "Z" is asked in the question.

Q.4. A software development company has won a contract. A list of main components involved in the development is given in the scenario discussed above: **[CLO 2]** Please answer the following questions:

5+2

- We need to do crashing by 7 working days, please calculate total crashing cost of the project
- Please identity clearly if there is any change in the critical path