

SVKM'S NMIMS
MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Academic Year: 2022-2023

Program/s: Btech

Year: IV Semester: VIII

Stream/s : CSBS

Subject: Information Technology Project Management

Time: 3 hrs (10 am to 1 pm)

Date: 20/04/2023

No. of Pages: 3

Marks: 100

Final Examination

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover of the Answer Book, which is provided for their use.

- 1) Question No. 1 is compulsory.
- 2) Out of remaining questions, attempt any 4 questions.
- 3) **In all 5 questions to be attempted.**
- 4) All questions carry equal marks.
- 5) **Answer to each new question to be started on a fresh page.**
- 6) **Figures in brackets on the right hand side indicate full marks.**
- 7) **Assume Suitable data if necessary.**
- 8) Use of calculator is allowed.

Q1		Answer briefly:	[20]
CO- 1 ; SO- 2 ; BL- 3	a.	Illustrate work break down structure (top down estimation technique) using suitable example.	[5]
CO- 1 ; SO- 2 ; BL- 5	b.	Compare direct cost and indirect cost .	[5]
CO- 2 ; SO- 2 ; BL- 3	c.	Illustrate Lean methodology with suitable example.	[5]
CO- 2 ; SO- 2 ; BL- 4	d.	Draw a flowchart to perform test driven development (TDD) test in DevOps.	[5]
Q2 CO- 1 ; SO- 1 ; BL- 2	a.	Describe in detail the steps involved in market and demand analysis	[10]

CO- 1; SO- 6; BL- 6	b.	<table><tr><th>Activity</th><th>Predecessor Acitivity</th><th>Optimistic (in weeks)</th><th>Most likely (in week)</th><th>Pessimistic (in week)</th></tr><tr><td>A</td><td>-</td><td>2</td><td>4</td><td>6</td></tr><tr><td>B</td><td>A</td><td>3</td><td>6</td><td>9</td></tr><tr><td>C</td><td>A</td><td>8</td><td>10</td><td>12</td></tr><tr><td>D</td><td>B</td><td>9</td><td>12</td><td>15</td></tr><tr><td>E</td><td>C</td><td>8</td><td>9</td><td>10</td></tr><tr><td>F</td><td>D,E</td><td>16</td><td>21</td><td>26</td></tr><tr><td>G</td><td>D,E</td><td>19</td><td>22</td><td>25</td></tr><tr><td>H</td><td>F</td><td>2</td><td>5</td><td>8</td></tr><tr><td>I</td><td>G</td><td>1</td><td>3</td><td>5</td></tr></table> <p>(i) Create the PERT network for the project.</p> <p>(ii) Determine the EST (earliest start time), EFT (earliest finish time) ,LST (latest start time) ,LFT (latest finish time) in the tabular format</p> <p>(iii) Determine the critical path. <i>AC E FH 49 weeks</i></p>	Activity	Predecessor Acitivity	Optimistic (in weeks)	Most likely (in week)	Pessimistic (in week)	A	-	2	4	6	B	A	3	6	9	C	A	8	10	12	D	B	9	12	15	E	C	8	9	10	F	D,E	16	21	26	G	D,E	19	22	25	H	F	2	5	8	I	G	1	3	5	[10]
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Q3 CO- 1; SO- 1; BL- 5	a.	List down the challenges in resource scheduling and Justify how resource levelling can be used to resolve conflicts arising due to resource scheduling.	[10]																																																		
CO- 1; SO- 6; BL- 4	b.	<p>Define the term “risk” and explain the different categories of risk. Complete the following risk assessment table with proper justifications</p> <table><tr><th>Risk</th><th>Impact Description</th><th>Risk Response</th></tr><tr><td>Resource bottlenecks due to parallel projects</td><td></td><td></td></tr><tr><td>Misunderstood scope and objectives</td><td></td><td></td></tr></table>	Risk	Impact Description	Risk Response	Resource bottlenecks due to parallel projects			Misunderstood scope and objectives			[10]																																									
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Q4 CO- 2; SO- 1; BL- 3	a.	Illustrate with the help of an example how agile methodology handles unpredictability. Explain any two Agile methodologies in brief and give its relationship with Agile	[10]																																																		
CO- 2; SO- 6; BL- 5	b.	Discuss the various Scrum roles in detail. You've been working as a Scrum Master for three different Scrum Teams for a while now. The teams all work on the same product, use the same technology, and work for the same group of stakeholders. Recently, the manager of the teams has asked you to help her identify useful metrics to track their performance. What metrics would you suggest? How does	[10]																																																		

		this case connect to the Scrum Values? Justify your answer.	
Q5 CO- 2; SO - 1; BL- 2	a.	How does DevOps enable continuous delivery and deployment of software?	[10]
CO- 2; SO- 1; BL- 2	b.	How does Dynamic Systems Development Method (DSDM) facilitate agile development practices?	
Q6 CO- 2; SO- 1; BL- 2	a.	What are the different Scrum artifacts and ceremony? Explain in details	[10]
CO- 2; SO- 1; BL- 2	b.	What are the key components of a DevOps environment, and how do they work together to improve software delivery?	[10]
Q7 CO- 2; SO- 1; BL- 2	a.	Explain any five agile principles in details.	[10]
CO- 1; SO- 2; BL- 4	b. i	Explain cost reduction by crashing of activity with suitable example.	[05]
CO- 2; SO- 1; BL- 3	b. ii	Comment on how product backlog differ from sprint backlog.	[05]