Register Number:……..

KUMARAGURU
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ENTER **B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2022**

(Regulation 2018)

Fifth Semester

COMPUTER SCIENCE AND ENGINEERING

U18CST5002**:** Agile Software Development

COURSE OUTCOMES

CO1: Apply design principles and refactoring to achieve Agility
CO2: Analyze automated build tools, version control and continuous integration
CO3: Perform testing activities within an Agile project
CO4: Finding initial product backlog items as user stories, order your product backlog.
CO5: Choose the size of the backlog items and perform sprint planning.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	"Iterative and agile methods embrace change, but not chaos". Comment on the statement with an appropriate example	CO1	[K_2]
2.	What is lean software development? Specify where this methodology can be applied.	CO1	[K_2]
3.	Distinguish between Product backlog and Sprint backlog.	CO5	[K_1]
4.	How is the velocity of an agile team computed?	CO5	[K_1]
5.	List the qualities of an Agile Testers	CO3	[K_1]
6.	What is risk based testing in agile? Also list where it will be used.	CO3	[K_1]
7.	What is Continuous integration?	CO2	[K_1]
8.	State the significance of Refactoring.	CO2	[K_1]
9.	What is an Agile Cloud?	CO5	[K_1]
10.	What is a mitigation plan in agile?	CO5	[K_1]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	List and explain the various Extreme Programming principles that support change with a suitable example.	12	CO1	[K_2]
	b)	How a Pair Programming carried out in XP and list any two advantage and disadvantage of pair programming.	04	CO1	[K_2]

12.	a)	What are "User stories"? List their characteristics. Consider the following requirement gathered from the customers who would be using an automated ticket-issuing system: "An automated ticket-issuing system sells train tickets. Users select their destination and input a credit card and a personal identification number. The train ticket is issued and their credit card account charged. When the user presses the start button, a menu display of potential destinations is activated, along with a message to the user to select a destination. Once a destination has been selected, users are requested to input their credit card. Its validity is checked and the user is then requested to input a personal identifier. When the credit transaction has been validated, the ticket is issued." Identify a set of User stories from the above requirements.	16	CO2	[K_3]
13.	a)	Online kart application allows the users to purchase electronics and consumables of various brands user needs to register and login before purchasing an item. Administrator must approve the registered user. Once logged in user can select, view and purchase items. The site has a wish list that shows the list and price of the selected items. For purchase, user selects and adds items from the wish list to shopping kart. Purchase can be made through a cash on delivery. Analyze the Scrum Events for the case study along with Product backlog, sprint Backlog and Product increments The Product owner introduces the new requirement of "Payment of purchase through online". This changes the Production and Manufacturing section activities. How can this change be handled?	12	CO2	[K_3]
	b)	Discuss on the various roles in Scrum development?	04	CO2	[K_2]
14.	a)	Discuss in brief on Exploratory testing and Regression testing along with its merits and demerits. Also discuss the various challenges faced during agile testing.	12	CO3	[K_2]
	b)	List any two tools that can be used to support the Agile tester. Also state the purpose of the specified tools.	04	CO3	[K_2]

15.	a)	Discuss in detail on the concepts that make up SOLID design principle.	12	CO4	[K_2]
	b)	What is version control? and discuss the need for version control.	04	CO4	[K_2]
16.	a)	Discuss is detail on Agile ALM? Also specify how does the team get benefited from Agile ALM and list its advantages.	08	CO5	[K_2]
	b)	Discuss on how to manage and organize distributed Agile development teams effectively.	08	CO5	[K_2]

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