Home > My courses > Systems and Operations Research - Fall - 2021/2022 > General > Assignment 1

Started on	Monday, 8 November 2021, 7:09 PM
State	Finished
Completed on	Monday, 8 November 2021, 7:20 PM
Time taken	10 mins 1 sec
Grade	**15.00** out of 15.00 (**100**%)

Question 1
Correct
Mark 1.00 out of 1.00

Model-based system engineering (MBSE) focuses on developing, managing and controlling the model of the system

Select one:
- True ✔
- False

The correct answer is 'True'.

Question 2
Correct
Mark 1.00 out of 1.00

Systems Engineering (SE) is a narrow branch of engineering associated with computers, software, and information technology (IT).

Select one:
- True ✔
- False

The correct answer is 'True'.

Question 3
Correct
Mark 1.00 out of 1.00

A system is a group of interacting, interrelated, or interdependent elements forming a complex whole.

Select one:
- True ✔
- False

The correct answer is 'True'.

Question 4

Correct

Mark 1.00 out of 1.00

…………… refers to a different set of tasks that ensure that the software that has been built is traceable to customer requirements.

Select one:

○ a. Verification

◉ b. Validation ✔

○ c. Array

○ d. None of these

Your answer is correct.

The correct answer is: Validation

Question 5

Correct

Mark 1.00 out of 1.00

The measure of the extent to which the system achieves its intended transformation with the minimum use of resources.

Select one:

○ a. Effectiveness:

◉ b. Efficiency ✔

○ c. Efficacy

○ d. None of the above

Your answer is correct.

The correct answer is: Efficiency

Question 6

Correct

Mark 1.00 out of 1.00

With reference to V-Model, testing is done in a hierarchical manner,

Select one:

◉ True ✔

○ False

The correct answer is 'True'.

Question 7

Correct

Mark 1.00 out of 1.00

The subject of cybernetics deals with the science of :

Select one:

○ a. Molecular biology

◉ b. Control and communication ✔

○ c. Genetics

○ d. Biochemistry

Your answer is correct.

The correct answer is: Control and communication

Question 8

Correct

Mark 1.00 out of 1.00

In V model, Requirement analysis refers to detailed communication with the customer to understand their _____.

Select one:

- ○ a. None of the mentioned above
- ○ b. Analysis and design
- ⦿ c. Requirements and expectations ✔
- ○ d. Testing and implementation

Your answer is correct.

The correct answer is: Requirements and expectations

Question 9

Correct

Mark 1.00 out of 1.00

Which of the following are advantages of iterative model?

Select one:

- ○ a. Early revenue generation
- ○ b. Simpler to manage
- ○ c. Divided workload
- ○ d. Early feedback
- ⦿ e. All the above ✔

Your answer is correct.

The correct answer is: All the above

Question 10

Correct

Mark 1.00 out of 1.00

In waterfall model, output of one phase is input to next phase. True or false.

Select one:

- ⦿ True ✔
- ○ False

The correct answer is 'True'.
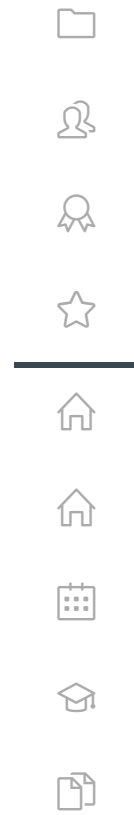
Question 11

Correct

Mark 1.00 out of 1.00

Validation ensures that "Are we building the right product?"

Select one:

- ⦿ True ✔
- ○ False

The correct answer is 'True'.

Question 12

Correct

Mark 1.00 out of 1.00

Verification ensures that "Are we building the product, right?"

Select one:

◉ True ✔

○ False

The correct answer is 'True'.

Question 13

Correct

Mark 1.00 out of 1.00

…………… refers "Understand principles, what is best?".

Select one:

○ a. Data

◉ b. Wisdom ✔

○ c. information

○ d. knowledge

Your answer is correct.

The correct answer is: Wisdom

Question 14

Correct

Mark 1.00 out of 1.00

the measure of the extent to which a system achieves its intended transformation

Select one:

◉ a. Effectiveness: ✔

○ b. Efficiency

○ c. Efficacy

○ d. None of the above

Your answer is correct.

The correct answer is: Effectiveness:

Question 15

Correct

Mark 1.00 out of 1.00

User Acceptance Testing tests whether the product is capable enough to launch in the market or ready to work in the real world.

Select one:

◉ True ✔

○ False

The correct answer is 'True'.

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Home ▸ My courses ▸ Systems and Operations Research - Fall - 2021/2022 ▸ General ▸ Quiz #1

Started on	Friday, 19 November 2021, 6:23 PM
State	Finished
Completed on	Friday, 19 November 2021, 6:27 PM
Time taken	4 mins 7 secs
Grade	**10.00** out of 10.00 (**100**%)

Question 1
Correct
Mark 1.00 out of 1.00

Systems Engineers practically apply systems thinking to understand…………………… Appreciate the interconnectedness of all things.

Select one:
- ○ demonstration, inspection, or analysis
- ⦿ data, information, knowledge, and wisdom ✔
- ○ functional and non-functional

Your answer is correct.

The correct answer is: **data, information, knowledge, and wisdom**

Question 2
Correct
Mark 1.00 out of 1.00

…………………… ensures you built the system right.

Select one:
- ○ Validation
- ⦿ Verification ✔
- ○ Logical models

Your answer is correct.

The correct answer is: **Verification**
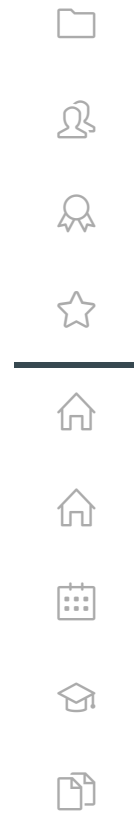
Question 3
Correct
Mark 1.00 out of 1.00

Verification ensures you built the right system.

Select one:
- ○ True
- ⦿ False ✔

The correct answer is 'False'.

Question 4

Correct

Mark 1.00 out of 1.00

Knowledge refers to "Understanding principles, what is best?".

Select one:
○ True
◉ False ✔

The correct answer is 'False'.

Question 5

Correct

Mark 1.00 out of 1.00

A system is a set of interacting units or elements that form an integrated whole intended to perform some function.

Select one:
◉ True ✔
○ False

The correct answer is 'True'.

Question 6

Correct

Mark 1.00 out of 1.00

…………… are all functional and non-functional requirements.

Select one:
○ **User requirements**
◉ **System requirements** ✔
○ **Stakeholder requirements**

Your answer is correct.

The correct answer is: **System requirements**

Question 7

Correct

Mark 1.00 out of 1.00

A .... is a collection of hardware, software, people, facilitates, and produces organized to accomplish to accomplish some common objectives.

Select one:
○ Knowledge
◉ System ✔
○ Product life cycle

Your answer is correct.

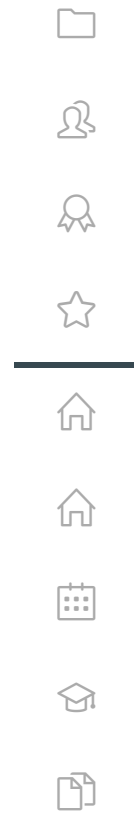The correct answer is: System

Question 8

Correct

Mark 1.00 out of 1.00

System architecture is abstract, conceptualization-oriented, global, and focused to achieve the mission and life cycle concepts of the system.

Select one:
◉ True ✔
○ False

The correct answer is 'True'.

Question 9

Correct

Mark 1.00 out of 1.00

The output will be the same for each identical input in stochastic system

Select one:

○ True

⦿ False ✔

The correct answer is 'False'.

Question 10

Correct

Mark 1.00 out of 1.00

Development Methodology in which project management processes were step-by step.

Select one:

○ **Incremental**

⦿ **Waterfall** ✔

○ **Spiral**

○ **Prototyping**

Your answer is correct.

The correct answer is: **Waterfall**

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Home > My courses > Systems and Operations Research - Fall - 2021/2022 > General > Assignment #2

Started on	Saturday, 27 November 2021, 1:58 PM
State	Finished
Completed on	Saturday, 27 November 2021, 2:01 PM
Time taken	2 mins 56 secs
Marks	15.00/15.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1

Correct

Mark 1.00 out of 1.00

Potential Reasons for a Quantitative Analysis Approach to Decision Making is ……….

Select one:

○ The problem is very important

○ The problem is repetitive

◉ All Choices. ✔

○ The problem is new

○ The problem is complex

Your answer is correct.

The correct answer is: All Choices.

Question 2

Correct

Mark 1.00 out of 1.00

To provide a simple kind of regulation, buffering is used in _____ systems.

Select one:

○ self-regulated

○ closed-loop

◉ open-loop ✔

Your answer is correct.

The correct answer is: open-loop

Question **3**

Correct

Mark 1.00 out of 1.00

What is the importance (Goal) of using operations research ……….

Select one:

○ Make a good decision

○ Solve a problem

○ Use less resources

◉ All Choices ✔

Your answer is correct.

The correct answer is: All Choices

Question **4**

Correct

Mark 1.00 out of 1.00

Internal nursing staff not happy with their schedules hospital using too many external nurses is example for ..……….

Select one:

○ Problem Formulation

◉ The Situation ✔

○ Goal

○ Data Preparation

Your answer is correct.

The correct answer is: The Situation

Question **5**

Correct

Mark 1.00 out of 1.00

In the basic terms of cybernetics, a system may be represented by three boxes: ……..

Select one:

◉ The black, the grey, and the white ✔

○ The red, the yellow, and the green

○ The black, the grey, and the yellow

Your answer is correct.

The correct answer is: The black, the grey, and the white
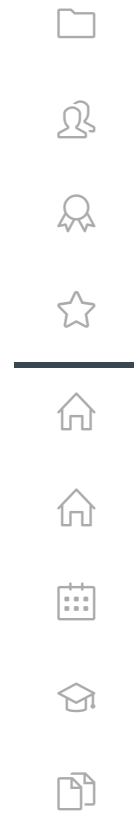
Question **6**

Correct

Mark 1.00 out of 1.00

Assume all data are known with certainty is ………...

Select one:

◉ Deterministic models ✔

○ Closed Systems

○ Stochastic models

Your answer is correct.

The correct answer is: Deterministic models

Question 7

Correct

Mark 1.00 out of 1.00

The process uses information from the input in a .... system.

Select one:

○ feed-back

○ self-regulated

◉ feed-forward ✔

Your answer is correct.

The correct answer is: feed-forward

Question 8

Correct

Mark 1.00 out of 1.00

The process of observation and testing characterized by the scientific method is ………...

Select one:

○ Operations

○ System

◉ Research ✔

Your answer is correct.

The correct answer is: Research

Question 9

Correct

Mark 1.00 out of 1.00

The measure of the extent to which the system achieves its intended transformation with the minimum use of resources is known as ....

Select one:

○ Effectiveness

○ Efficacy

◉ Efficiency ✔

Your answer is correct.

The correct answer is: Efficiency
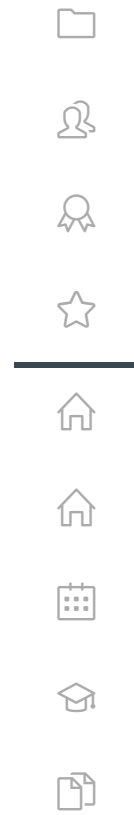

Question 10

Correct

Mark 1.00 out of 1.00

……………… is a method of mathematically based analysis for providing a quantitative basis for management decisions.

Select one:

○ System

○ Operating System

◉ Operations research ✔

Your answer is correct.

The correct answer is: Operations research

Question 11

Correct

Mark 1.00 out of 1.00

An automatic sprinkler system is an example of .... system.

Select one:

- ○ open-loop ✔
- ○ closed-loop
- ○ self-regulated

Your answer is correct.

The correct answer is: open-loop

Question 12

Correct

Mark 1.00 out of 1.00

Explicitly represent uncertain data via random variables or stochastic processes is ………...

Select one:

- ○ Stochastic models ✔
- ○ Open systems
- ○ Deterministic models

Your answer is correct.

The correct answer is: Stochastic models

Question 13

Correct

Mark 1.00 out of 1.00

A measure of the extent to which a system achieves its goal is known as ....

Select one:

- ○ Efficacy
- ○ Efficiency
- ○ Effectiveness ✔

Your answer is correct.

The correct answer is: Effectiveness

Question 14

Correct

Mark 1.00 out of 1.00

The activities carried out in an organization is ………...

Select one:

- ○ Research
- ○ System
- ○ Operations ✔

Your answer is correct.

The correct answer is: Operations

Question 15

Correct

Mark 1.00 out of 1.00

.... occurs when the scope of the project increases

Select one:

- ○ Scope creep ✔
- ○ Project scope document
- ○ *Project scope*
- ○ Feature creep

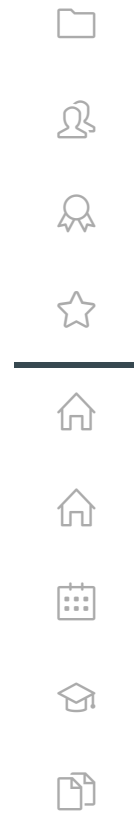Your answer is correct.

The correct answer is: Scope creep

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Started on	Saturday, 27 November 2021, 2:01 PM
State	Finished
Completed on	Saturday, 27 November 2021, 2:04 PM
Time taken	3 mins 12 secs
Marks	23.00/23.00
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Linear Programming is deterministic model.

Select one:

○ True ✔

○ False

The correct answer is 'True'.

Question **2**

Correct

Mark 1.00 out of 1.00

Closed-loop systems are ....

Select one:

○ servo-regulate

● self-regulated ✔

○ not-regulated

Your answer is correct.

The correct answer is: self-regulated

Question **3**

Correct

Mark 1.00 out of 1.00

Evaluate the results is one of decision making steps.

Select one:

○ True ✔

○ False

The correct answer is 'True'.

Question 4

Correct

Mark 1.00 out of 1.00

In the basic terms of cybernetics, a system may be represented by three boxes. Box color denotes different degrees of user interest in the understanding of the internal working process of a system. Cold shower" can be represented as ....

Select one:

○ A grey box

○ A white box

◉ A black box ✔

Your answer is correct.

The correct answer is: A black box

Question 5

Correct

Mark 1.00 out of 1.00

Internal parameters of the system which determine the relationship between input and output are known as ....

Select one:

○ State-transition function

○ Input-output trajectories

◉ The set of states ✔

Your answer is correct.

The correct answer is: The set of states

Question 6

Correct

Mark 1.00 out of 1.00

A system in which an output is not connected to its input is known as _____ system.

Select one:

◉ open-loop ✔

○ closed-loop

○ self-regulated

Your answer is correct.

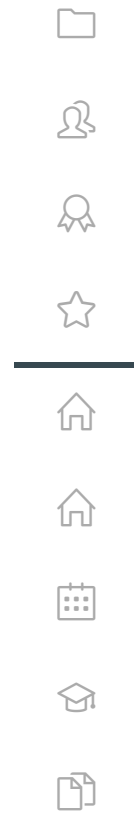The correct answer is: open-loop

Question 7

Correct

Mark 1.00 out of 1.00

Build databases and programs in development phase.

Select one:

◉ True ✔

○ False

The correct answer is 'True'.

Question 8

Correct

Mark 1.00 out of 1.00

The measure of the extent to which the system achieves its intended transformation with the minimum use of resources is known as ....

Select one:

○ Efficiency ✔

○ Effectiveness

○ Efficacy

Your answer is correct.

The correct answer is: Efficiency

Question 9

Correct

Mark 1.00 out of 1.00

In the basic terms of cybernetics, a system may be represented by three boxes. Box color denotes different degrees of user interest in the understanding of the internal working process of a system. „hospitalize for intensive treatment" can be represented as ....

Select one:

○ A white box ✔

○ A black box

○ A grey box

Your answer is correct.

The correct answer is: A white box

Question 10

Correct

Mark 1.00 out of 1.00

……………… involves determining a solid plan for developing your information system

Select one:

○ Development phase

○ Planning phase ✔

○ Design phase

○ Analysis phase

Your answer is correct.

The correct answer is: Planning phase
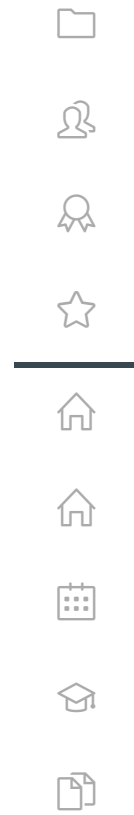
Question 11

Correct

Mark 1.00 out of 1.00

Build a help desk in Maintenance phase

Select one:

○ True ✔

○ False

The correct answer is 'True'.

Question 12

Correct

Mark 1.00 out of 1.00

_____is a process that uses information from the output.

Select one:

○ Feed-forward

○ Quasi-static

◉ Feedback ✔

Your answer is correct.

The correct answer is: Feedback

Question 13

Correct

Mark 1.00 out of 1.00

Define relationships between individual nurse assignments and preference violations; define tradeoffs between the use of internal and external nursing resources. is example for ………..

Select one:

○ Problem Formulation

○ The Situation

◉ Constructing a Model ✔

○ Data Preparation

Your answer is correct.

The correct answer is: Constructing a Model

Question 14

Correct

Mark 1.00 out of 1.00

A measure of the extent to which the system contributes to the purposes of a higher-level system of which it may be a subsystem is known as ....

Select one:

◉ Efficacy ✔

○ Efficiency

○ Effectiveness

Your answer is correct.

The correct answer is: Efficacy
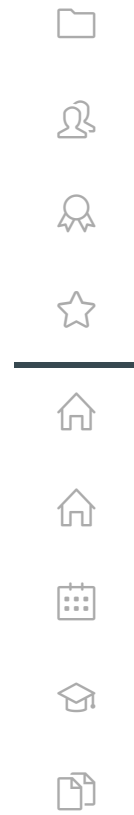
Question 15

Correct

Mark 1.00 out of 1.00

_____ describes how the state changes when various inputs are fed into the system.

Select one:

○ The set of states

○ Input-output trajectories

◉ State-transition function ✔

Your answer is correct.

The correct answer is: State-transition function

Question 16

Correct

Mark 1.00 out of 1.00

In the basic terms of cybernetics, a system may be represented by three boxes. Box color denotes different degrees of user interest in the understanding of the internal working process of a system. „visit nurse for treatment" can be represented as ....

Select one:

- ○ A white box
- ○ A black box
- ● A grey box ✔

Your answer is correct.

The correct answer is: A grey box

Question 17

Correct

Mark 1.00 out of 1.00

Are representations of real objects or situations...........

Select one:

- ○ Design
- ○ Painting
- ● Models ✔

Your answer is correct.

The correct answer is: Models

Question 18

Correct

Mark 1.00 out of 1.00

Maximize individual nurse preferences subject to demand requirements is example for ....

Select one:

- ● Problem Formulation ✔
- ○ The Situation
- ○ Data Preparation
- ○ Goal

Your answer is correct.

The correct answer is: Problem Formulation
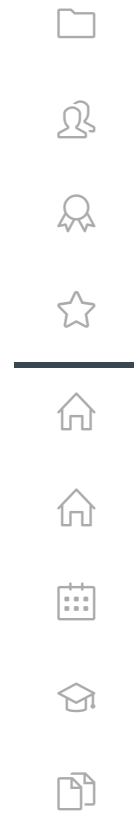
Question 19

Correct

Mark 1.00 out of 1.00

Stochastic models involve optimization.

Select one:

- ○ True
- ● False ✔

The correct answer is 'False'.

Question **20**

Correct

Mark 1.00 out of 1.00

Write user documentation in implementation phase.

Select one:

○ True ✔

○ False

The correct answer is 'True'.

Question **21**

Correct

Mark 1.00 out of 1.00

Unit testing verifies that the units of code function correctly when integrated.

Select one:

○ True

● False ✔

The correct answer is 'False'.

Question **22**

Correct

Mark 1.00 out of 1.00

In planning phase: ....

Select one:

● All Choics ✔

○ Define the system to be developed

○ Set the project scope

○ Develop the project plan

Your answer is correct.

The correct answer is: All Choics

Question **23**

Correct

Mark 1.00 out of 1.00

Identify and define the problem is one of Decision Making steps.

Select one:

● True ✔

○ False

The correct answer is 'True'.

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