❖ **Questions:**

1) Is the use of models (physical, mathematical, schematic..) as a basis for simulation for decision making.

   a. System b. Model c. Modelling and simulation

2) Representing physical model in virtual form and condition are applicant that set up of the interest.

   a. M&S b. Model c. Mathematical model

3) Is a discipline for a developing a level of understanding of the interaction of the parts of a system and a system as a whole

   a. Model b. Modelling and simulation c. system

4) Representing the real system can be done either physical model at smaller scale, or via mathematical model.

   a. Modelling and system b. Simulation c. System

5) Example on methods of design automation and manufacturing is:

   a. DSS b. M&S C. CAD

6) Is emerging discipline.

   a. Simulation b. System c. Modelling and simulation

7) CAD stands for:

   a. Computer and design.
   b. Computerized-aided design.
   c. Computer-aided design.

8) Each scientific and technical should always be based on through (physical, chemical and biological etc.) of the concerned branch of business.

   a. Decision b. Knowledge c. Model

9) M&S depends on development of

a. Physical method b. Schematic method c. mathematical method

10) is the manipulation of a model in such a way that it operates on time or space to compress it

a. Simulation b. Model c. M&S.

11) Allows correction or completion of knowledge of the

a. Simulation. B. Model c. System.

12) Is the manipulation of a model in such a way that it operates on time or space to compress it.

a. M&S b. System c. Simulation

13) Is simplified representation of a system at some particular point in time or space intended to promote understanding of a real system

a. M&S b. Simulation c. Model

14) Is description of some system intended to predict what happens if certain action are taken.

a. System b. Simulation c. Model.

15) Construct conceptual framework that describe system.

a. System b. Simulation c. Model.

16) A collection of symbols and ideas that represent the functional relationship of the elements of system.

a. System b. Simulation c. Model.

17) From the types of the model

a. Mental and symbolic model b. design and processing c. Model and simulation

18) Is set of elements or components that interact to accomplish goals

a. Model b. System c. Simulation

19) Represent the most system component s and the way they interact

a. System b. Simulation c. Model

20) Is Collection of entities that act together

a. Model b. Simulation c. System

21) Is groups of objects that are joined together toward the accomplishment of some purpose

a. Model b. System c. M&S

22) Give us comprehensible representation of the system.

a. Model b. M&S c. Simulation

23) Are something to communicate about system have inputs and outputs

a. System b. M&S c. Model

24) Is something that we use in lieu of the real system in order to understand something about the system.

a. M&S b. Simulation c. Model

25) When we make model of actual system, we determine

a. Required setting boundaries.

b. Separate system from rest of the universe.

c. Separate the system a closed world.

d. All of the above.

26) Defines the system and distinguishes it from everything else.

a. System b. System boundary c. Model

27) Is specific objective in system.

a. System performance and standard b. System c. Efficiency

28) A measure of what is produced divide by what is concumed

a. Efficiency b. Effectiveness c. Model

29) A measure of the extent to which a system achieves its goal.

a. Efficiency b. Effectiveness c. System performance and standard

30) A quantity or value that can be controlled by the decision maker.

a. System parameter b. system variable c. System

31) A quantity or value that cannot be controlled by the decision maker.

a. System parameter b. system variable c. System

32) A set of interrelated elements or components that collect input, manipulate, and disseminate output data and information and provide feedback to meet an objective.

a. System b. M&S c. IS

33) the activity of gathering and capturing data.

a. Output b. input c. processing

34) Whatever goes into computer.

a. input b. output c. processing.

35) Converting or transforming data into useful output

a. input b. output c. processing

36) A device that feeds data into computer such as keyboard or mouse.

a. input device b. output device c. computer

37) Anything that comes out a computer.

a. input b. output c. processing

38) Useful information and the forms of the documents

a. input b. output c. processing.

39) Include display screen, loudspeaker and printer.

a. input device b. output device c. computer

40) Output that is used to make changes to input or processing activities.

a. processing b. feedback c. forecasting

41) Is proactive approach to feedback and used for estimation future

a. feedback b. forecasting c. IS

42) Is composed of HW, SW, DB, telecommunication, people, procedure together they are configure to collect, manipulate, store, process data input information.

a. computer based information system(CBIS)

b. manual system c. I

43) is another term of CBIS and consists of shared IS resources that from the foundation of IS.

a. IS b. CBIS c. technology infrastructure.

44) is computing system used to perform input, processing, output activities.

a. SW b. HW c. telecommunication.

45) Is the objects that actually touched, like disk, disk dive, display screen and keyboard.

a. SW b. HW c. telecommunication

46) The important in the Hardware is a process of

a. manufacturing b. computing system c. interring data

47) All of the following that factors affecting the performance of computing system except:

a. Ram size **b. hard disk speed and storage**

c. fragmenting files **d. multitasking consideration**

48) Is how fast the CPU will run.

a. CPU clocked speed **b. hard disk** **c. processor**

49) The important part inside CPU is

a. memory **b. hard disk** **c. processor**

50) Processor consists of

a. ALU **b. control unit** **c. both**

51) the clock speed of processor is given in

a. Mbytes **b. Gbytes** **c. GHZ**

52) as a rule the more memory you have faster PC will appear to operate

a. hard disk storage **b. RAM size** **c. free hard disk space**

53) hard disk performance is measured by their

a. size **b. speed** **c. storage**

54) Hard disk defined by the disk

a. disk storage **b. access time** **c. disk speed**

55) Access time is measured in

a. GHZ **b. millisecond** **c. Mbit/s**

56) Microsoft windows will create many so-called whish used for managing your programs.

a. temporary files b. master files c. archive files

57) If you have free hard disk space you may find that Microsoft windows will not be able to run the system programs at all.

a. many b. **very little** c. little.

58) talking all the broken up pieces and joining them back together again.

a. fragmentation files b. **de-fragmentation files** c. compressed files

59) Windows can run more than one program at a time.

a. single task b. **multitasking** c. sharing

60) a property of an entity.

a. tuple b. **attribute** c. state

61) is activities and events occurring with the environment.

a. endogenous b. **exogenous** c. event

62) is an instantaneous occurrence that might change the state of the system.

a. activity b. state c. **event**

63) is a collection of variables and their values necessary to describe the system at that time

a. event b. activity c. **state**

64) system might be limited by the boundaries:

a. conceptual and logical b. **physical and logical**

65) Designing and analyzing manufacturing system.

a. model b. **application** c. simulation

66) evaluating HW/SW requirements for a computer system.

a. simulation b. state c. application

67) state variable changes at separate points in time.

a. continuous system b. system c. discrete system

68) state variable change continuously as a function of a time.

a. continuous system b. system c. discrete system

69) most operational model are dynamic, stochastic and discrete they are called

a. continuous-event simulation model

b. discrete-event simulation model

c. event simulation model

70) Computational model should be consistent with specification model

a. validation b. verification c. correctness

71) Computational model should be consistent with the system being analysed

a. validation b. verification c. correctness

72) can an expert distinguish simulation output from actual system output

a. validation b. verification c. correctness

73) give comprehensive should the model be and is the state variable.

a. conceptual model level

b. specification model level

c. computational model level

74) is on paper and may involve equations and pseudocode.

a. conceptual model level

b. specification model level

c. computational model level

75) is an computer program:

a. conceptual model level

b. specification model level

c. computational model level

❖ True or False:

1-The emerging discipline of M&S is based on development in computer science as well as influenced by development in system engineering, AI, SW engineering and system theory.

a. True. b. False.

2-From goals of M&S developing facility in simulation modelling building

a. True. b. False.

3- From goals of M&S introducing M&S.

a. True. b. False.

4-From goals of M&S developing application for the need for the simulation

a. True. b. False.

5-The level of understanding which may be developed via the discipline is seldom achievable via any other discipline.

a. True. b. False.

6- When the simulation starts, make the physical model with condition. (Mathematical Model)

a. True **b. False.**

7- When the simulation starts, outputs of the results in format that is:
machine - human reachable – depending upon the implementation

a. True. **b. False.**

8-Fom advantages of M&S increase cost. (Reduce cost)

a. True. **b. False.**

9- Models may be updated and improved using results of actual experiments.

a. True. **b. False.**

10-The resulting of simulation are only as good as the underlying models, engineering and analyst must pay attention of its construction.

a. True. **b. False.**

11-M&S is a discipline and pure application.

a. True. **b. False.**

12- Mathematical model and computational power is used to solve real world problems cheaply and time efficient.

a. True. **b. False.**

13-Simulation can support experimentation that occurs totally in SW.

a. True. **b. False.**

14-Simulation used to train persons using actual environment.

a. True. **b. False.**

15-M&S Engineering is rooted in theory but looks for applicable solution pattern.

a. True. **b. False.**

16- Modelling as a method of cognition has short-time/age short history.

a. True. **b. False.**

17-M&S applications solve real world problems by focusing on solutions using M&S, but solutions are very problem domain specific.

a. True. **b. False.**

18-Model allows you analyse real system and specifying , clarifying our ideas in existing system.

a. True. **b. False.**

19-If the task from concerns the synthesis of design and constructions, then models results from development and design.

a. True. **b. False.**

20-From goals of M&S developing application for the need for the simulation

a. True. **b. False**

21- Development of simulation SW tools that enable intelligent processing of man-investigator with a computer system.

a. True. **b. False.**

22- Knowledge base and management system with the possibility of connecting to large and distributed DB.

a. True. **b. False.**

23- The relation between M&S and AI that connection of the system to superior organized computer network or distribution of calculations into its own computer network.

a. True. b. False.

24- Model is a dynamic representation of the system.

a. True. b. False.

25- Simulation is simplified representation of a system intended to enhance our ability to understand the behaviour of the system.

(Model)

a. True b. False.

26- When we make model for actual system that making during design. (PROCESSING)

a. True. b. False.

27- Simulation is an abstraction or an approximation that is used to represent reality. (Model)

a. True. b. False.

28- Model is a part of some potential reality where we are concerned with space-time effects and causal relationship among parts of the system.

a. True b. False

29- Output can appear in a variety of forms: as binary number, as character, as picture and as printed page

a. True. b. False.

30- parts of CBIS are FIVE: HW, SW, telecommunication, computer network and DB.

a. True **b. False**

31- The smaller the access time the slower the hard disk will store or retrieve data. (faster)

a. True. **b. False.**

32- However the more programs which are running at the same time, the faster each one will run. To some extend this faster effect depends on what each program is doing. (slower)

a. True. **b. False.**