



CMJ UNIVERSITY, SHILLONG

TERM END EXAMINATION - 2012

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Paper Name: Operation Research Techniques

ATTEMPT ALL THE BELOW MENTIONED QUESTIONS:

1. In a CPM/PERT network a dummy activity is necessary when
 - A) two activities have the same starting node
 - B) two activities have the same ending node
 - C) a node does not actually connect to another node
 - D) when two activities share the same starting and ending node
2. Shared slack in an activity network is defined as
 - A) the amount of time an activity can be delayed without delaying the entire project.
 - B) the amount of slack that an activity has in common with another activity.
 - C) the amount of unused resources for an activity.
 - D) the amount by which a time estimate can be in error without affecting the critical path computations.
3. The objective of project crashing is to
 - A) reduce the project duration
 - B) revise the network critical path and completion times when the schedule falls hopelessly behind
 - C) minimize the cost of crashing
 - D) more than one statement above is true
4. If an activity has zero activity slack it
 - A) means that the project is expected to be delayed.
 - B) must be a dummy activity.
 - C) is on the critical path.
 - D) all of the above
5. Assume that activity G has the following times:
Early start time = 7 days
Early finish time = 13 days
Late start time = 15 days
Late finish time = 21 days
Which of the following statements is true about activity G?
 - A) activity G takes 9 days to complete
 - B) activity G has a slack time of 8 days.
 - C) activity G is on the critical path.
 - D) activity G takes 8 days to complete
6. Assuming a beta distribution is being used, if the most likely time for an activity increases by 1 week, what will happen to the expected time for that activity?
 - A) it will increase by 4 weeks.
 - B) it will increase by 1 week.
 - C) it will remain the same.
 - D) it would increase by 2/3.
7. Using the network above, which of the following statements is true?
 - A) the critical path is 1-3, 3-5, 5-7
 - B) the earliest start data for activity 5-7 is 10
 - C) the latest start date for activity 2-5 is 11
 - D) the project completion time is 15 weeks

8. Using the data above to calculate the expected time and variance for each activity, which of the following statements is true?

- A) the expected time for activity 1-3 is 12.67
- B) the variance for activity 3-5 is 3.36
- C) the largest expected time occurs for activity 1-4
- D) the largest variance is for activity 1-3

9. Human beings are referred to as Homosapinens, which device is called Sillico Sapiens?

- A) Monitor
- B) Hardware
- C) Robot
- D) Computer

10. Which company is the biggest player in the microprocessor industry?

- A) Motorola
- B) IBM
- C) Intel
- D) AMD

11. The first microprocessor built by the Intel corporation was called

- A) 8008
- B) 8080
- C) 4004
- D) 8800

12. The metal disks, which are permanently housed in, sealed and contamination free containers are called

- A) Hard disks
- B) Floppy disk
- C) Winchester disk
- D) Flexible disk

13. Which is the first electronic digital computer?

- A) ENIAC
- B) MARK I
- C) Z3
- D) ABC

14. RATS stand for

- A) Regression Analysis Time Series
- B) Regression Analysis Time Sharing
- C) Real Analysis Series
- D) All of above

15. The first digital computer built with IC chips was known as

- A) IBM 7090
- B) Apple ? 1
- C) IBM System / 360
- D) VAX-10

16. A computer virus is a

- A) Software that saves the computer from being damaged.
- B) Application software that helps to make different type of viruses and worms
- C) Program that spreads itself and destroys other program
- D) Program that corrects the problems in your computer

17. Machine language is also called

- A) Assembly Language
- B) Binary Language
- C) High Level Language
- D) HTML Language

18. _____ is the best known builder for supercomputers.

- A) Sun
- B) Cray Research
- C) Microsoft
- D) Apple

19. The weaknesses of the computer are:

- A) Pattern recognition & Storage
- B) Speed & Innovative ideas
- C) Pattern recognition & Innovative ideas
- D) Speed & Storage

20. In the old days, databases did NOT support _____.

- A) Number
- B) Boolean
- C) Video
- D) Text

21. Despite the data glut that marketing managers receive, they frequently complain that they lack ____.

- A) enough information of the right kind
- B) quality information
- C) timely information
- D) accurate and reliable information

22. An MIS consists of people, equipment, and procedures to gather, sort, _____, evaluate, and distribute information to marketing decision makers.

- A) test
- B) test market
- C) analyze
- D) critique

- 23. Your firm has just developed its first successful MIS. It interacts with information users to assess information needs, develop needed information, _____ the marketing information, and help managers use it in their decision making.**
- A) distribute
 - B) collect
 - C) retrieve
 - D) store
- 24. The marketing information system is not limited to use by the company it serves. It may also provide information to _____.**
- A) the government
 - B) external partners
 - C) various publics
 - D) competitors
- 25. Marketers must weigh carefully the costs of additional information against the _____ resulting from it.**
- A) uses
 - B) benefits
 - C) knowledge
 - D) rewards
- 26. Four common sources of internal data include the accounting department, operations, the sales force, and the _____.**
- A) owners
 - B) stockholders
 - C) marketing department
 - D) custodians
- 27. Marketing information from this type of database usually can be accessed more quickly and cheaply than other information sources. Which one is it?**
- A) External.
 - B) MDSS.
 - C) EIS.
 - D) Internal.
- 28. This systematic collection and analysis of publicly available information about competitors and developments in the marketing environment is very useful. What is it called?**
- A) Marketing data.
 - B) Marketing intelligence.
 - C) Web Master.
 - D) Sales and sales management.
- 29. Which of the following was not mentioned in your textbook as a source of marketing intelligence?**
- A) Suppliers.
 - B) Resellers.
 - C) Key customers.
 - D) Your company reports.
- 30. Which of the following was not mentioned in your textbook as a source of marketing intelligence?**
- A) Competitors' garbage.
 - B) Buying competitors' products.
 - C) Monitoring competitors' sales.
 - D) Checking for new goodwill.
- 31. Your competitor may reveal intelligence information through which of these sources of information?**
- A) Annual reports.
 - B) Trade show exhibits.
 - C) Web pages.
 - D) All of the above.
- 32. In today's information age, companies are leaving a paper trail of information _____.**
- A) in the wastebasket
 - B) online
 - C) in annual reports
 - D) with government agencies
- 33. To combat marketing intelligence by competitors, Unilever Corporation is now providing _____ to employees.**
- A) intelligence training
 - B) privacy blocks
 - C) protection
 - D) less information
- 34. Which of the steps in the marketing research process has been left out: defining the problems and research objectives, implementing the research plan, and interpreting and reporting the findings?**
- A) Developing the research budget.
 - B) Choosing the research agency.
 - C) Choosing the research method.
 - D) Developing the research plan.

- 35. Your colleague is confused about using the marketing research process. He seems to be having problems with _____, which is often the hardest step to take.**
- defining the problem
 - defining the research objectives
 - defining the problem and research objectives
 - researching a research agency to help
- 36. The objective of _____ research is to gather preliminary information that will help define the problem and suggest hypotheses.**
- descriptive
 - exploratory
 - causal
 - corrective
- 37. It is important to note that research objectives must be translated into specific _____.**
- marketing goals
 - information needs
 - dollar amounts
 - results that justify the means
- 38. The research plan outlines sources of existing data and spells out the specific research approaches, contact methods, _____, and instruments that researchers will use to gather new data.**
- personnel
 - sampling plans
 - budget requirements
 - all of the above
- 39. The way to begin marketing research is to gather secondary data, which consists of information _____.**
- that already exists somewhere
 - that does not currently exist in an organized form
 - that already exists somewhere, having been collected for another purpose
 - used by competition
- 40. How would you describe the primary data being used by your firm?**
- Collected for the specific purpose at hand.
 - Original information.
 - First-time information.
 - All of the above.
- 41. Which form of data can usually be obtained more quickly and at a lower cost?**
- Primary.
 - Census.
 - Secondary.
 - Syndicated.
- 42. Your assistant wants to use secondary data exclusively for the current research project. You advise him that the use of secondary data has some potential problems. Which of the following is not one of them?**
- It may not exist.
 - All of the needed data is rarely available.
 - It may not be useable.
 - It is generally more expensive when purchased from the government.
- 43. Primary data must be relevant, current, unbiased, and ____.**
- complete
 - accurate
 - inexpensive
 - collected before secondary data
- 44. Which method of research can obtain information that people are unwilling or unable to provide?**
- Observation.
 - Focus groups.
 - Personal interviews.
 - Fax surveys.
- 45. Survey research, called the backbone of primary research, is the most widely used method for primary data collection and is best suited for gathering ____ information.**
- personal
 - preference
 - attitude
 - descriptive
- 46. Fredia Pellerano has just discovered the major advantage of survey research. She reports to her supervisor that it is ____.**
- flexibility
 - cost effectiveness
 - quickness to administer
 - understandability
- 47. Experimental research is best suited for gathering _____ information.**
- unknown
 - causal
 - complicated
 - interactive

48. One of the following is not a current survey research method. It is contact by ____.

- A) online use
- B) mail
- C) telephone
- D) fax

49. All of the following are disadvantages of telephone interviewing except one. Which one?

- A) Higher cost than mail questionnaires
- B) Introduces interviewer bias
- C) Under time pressures some interviewers might cheat
- D) Interviewers tend to interpret answers similarly

50. Currently, you find yourself involved in marketing research. The form you are using is flexible, allows explanation of difficult questions, and lends itself to showing products and advertisements. What is this form of research?

- A) Personal interviewing.
- B) Online interviewing.
- C) Vision phone interviewing.
- D) Mall intercepts.

51. Which of the following is not an advantage of Web research?

- A) Speed.
- B) Low costs.
- C) Instantaneous results.
- D) A and C

52. DelRay Pools and Spas is collecting marketing data through online (Internet) marketing research. Management will have the choice of using Internet surveys, experiments, or ____.

- A) online focus groups
- B) individual interviewing
- C) hit counting
- D) questionnaire responses

53. Judy Hammerschmidt regularly conducts online marketing research at work. She has found that it has several advantages over traditional methods. Which of these is not an advantage?

- A) Respondents tend to be more honest.
- B) It is more cost efficient.
- C) Report generation turnaround time is much quicker.
- D) There is greater personal interaction.

54. Marketing researchers usually draw conclusions about large groups of consumers by studying a small ____ of the total consumer population.

- A) group
- B) sample
- C) population
- D) target group

55. Why would In The Mood Music Distributors choose a sampling of its customers to research rather than all 1,500 of them?

- A) Researching all of them is too time-consuming.
- B) Researching all of them can be too expensive.
- C) The sample can fairly represent the entire population.
- D) The customers may all be similar.

56. Sampling requires the answers to three questions. Choose the inappropriate one.

- A) Who is to be sampled (what sampling unit)?
- B) How many people should be surveyed (what sample size)?
- C) Why should they be sampled (justification)?
- D) How should the people be chosen (what sampling method)?

57. The backbone of marketing research, or the most common instrument used, is the ____.

- A) mechanical device
- B) live interviewer
- C) questionnaire
- D) teleinterviewer

58. In creating research questionnaires, which of the following is good advice for Mark Hammel, research specialist at New Wave Data, to follow?

- A) Use care in the wording and ordering of questions.
- B) Questions do not have to be arranged in a logical order.
- C) Ask difficult questions in the beginning to "weed out" uninterested respondents.
- D) Ask personal questions in the middle of the instrument.

59. Which of the following was not mentioned in your text as a common mechanical instrument used to conduct market research?

- A) Supermarket scanners.
- B) People meters.
- C) Galvanometers and eye cameras.
- D) Telephones.

60. At this point in your marketing research project, Mr. Barnes comments that the _____ phase is generally the most expensive and the most subject to error.

- A) exploratory research
- B) hypothesis
- C) data collection
- D) interpreting and reporting the findings

61. AMF Research Group must guard against problems during the implementation phase of marketing research for its clients. Typically, management will not encounter which of these problems?

- A) Contacting respondents.
- B) Respondents who refuse to cooperate or give biased answers.
- C) Interviewers who make mistakes or take shortcuts.
- D) Interpreting and reporting the findings.

62. Researchers interpret and report findings to their managers. What might be a typical problem the researcher might encounter when discussing the findings?

- A) Managers may be biased.
- B) Managers may accept results that support their preconceived notions.
- C) Managers may interpret the findings differently.
- D) All of the above.

63. Analytical models help analyze marketing information collected from research. These models can help answer _____ and _____ questions.

- A) short; simple
- B) what if; which is best
- C) relevant; current
- D) advanced; difficult

64. What is the purpose of a data warehouse?

- A) To gather information.
- B) To integrate information a company already has.
- C) To interpret data.
- D) To analyze data.

65. Tommy Baker is in charge of customer relationship management for American Pie Nostalgia. As a result of his effort in this area, his firm enjoys all of the following except _____.

- A) providing higher levels of customer service
- B) developing deeper customer relationships
- C) creating offers tailored to specific customer requirements
- D) understanding competition better

66. In MS-Dos 6.22, which part identifies the product uniquely

- A) MS
- B) DOS
- C) Ms-DOS
- D) 6.22

67. In Ms-Dos what command you will use to display system date?

- A) Date command
- B) Ver command
- C) Disk command
- D) Format command

68. While working with Ms-Dos which command transfers a specific file from one disk to another?

- A) Copy
- B) Diskcopy
- C) Time
- D) Rename

69. If you don't know the current time, which command will you use to display

- A) Copy
- B) Ver
- C) Time
- D) Format

70. Which command divides the surface of the blank disk into sectors and assign a unique address to each one

- A) Ver
- B) Format
- C) Fat
- D) Chkdsk