MID-WESTERN UNIVERSITY
FINAL EXAMINATION: 2019
MASTER OF BUSINESS ADMINISTRATION (MBA)
SEMESTER - I
R.No.

Subject: Foundations of Management
Course Code: MGT 511
Full Marks: 100
Time: 4:00 Hours

## SECTION A: MULTIPLE CHOICE QUESTIONS ( $\mathbf{1} \times \mathbf{2 0}=\mathbf{2 0}$ MARKS)/ (TIME: 20 MINUTES)

Tick the best answers.
Q1. $\qquad$ is accepting solutions that are "good enough".
a. Bounded rationality
c. Escalation of commitment
b. Satisfying
d. None of the above

Q2. Each subordinate should have only one superior whose command he has to be obeyed. This is known as:
a. Division of work
c. Unity of Command principle
b. Exception principle
d. Authority - responsibility principle

Q3. What are the two main dimensions of the Ohio Studies into leadership?
a. Starting position and end position
b. Initial environment and changed environment
c. Organizational structure and conditioning
d. Initiating structure and considerations

Q4. What is the term for power derived from status or position in an organization?
a. Referent
c. Reward
b. Expert
d. Legitimate

Q5. Esprite De corps means:
a. Union is strength
c. Buyer be aware
b. Service is our motto
d. Product is our strength

Q6. Supervisor is another name for:
a. Team leaders
c. First line managers
b. Middle managers
d. Top managers

Q7. Which of the following statements about planning are correct?

1. Forecasting
2. Choice among alternative courses of action.
3. Wishful thinking
4. Decision only by production manager Of the four statements,
a. 1,2,3 and 4 are correct
c. 1 and 2 are correct
b. 1,3 and 4 are correct
d. 2 and 3 are correct

Q8. Which of the following best describes the concept that management is needed in all types and sizes of organizations, at all organizational levels, in all organizational work areas, and in all organizations, no matter the country in which they're located?
a. the partiality of management
c. the universality of management
b. the segmentation of management
d. the cultures of management

Q9. Organizing includes:
a. defining organizational goals
c. motivating organizational members
b. hiring organizational members
d. determining who does what tasks

Q10. Making decisions on the basis of experience, feelings and accumulated judgment is called as:
a. Decision making
c. Intuitive decision making
b. Structured problems
d. None of the above

Q11. Span of controls means that
a. An organization consists of various departments
b. Each person's authority is clearly defined.
c. Every subordinate has one superior
d. A manager can supervise only a limited number of subordinates

Q12. As a manager if you are encouraging employees to improve productivity, which role are you playing?
a. Resource allocator
c. Leader
b. Entrepreneur
d. Liaison

Q13. Another term for efficiency is:
a. Doing the right things
c. Making sure things get done
b. Doing things right
d. Doing things at the right time

Q14. A company that makes social responsibility a priority, even if doing so cuts away their profits. Which stance is this?
a. Obstructionist stance
c. Accommodative Stance
b. Defensive stance
d. Proactive stance

Q15. The purpose of controlling function is:
a. To recognize gap in knowledge and skills
c. To delegate authority
b. To motivate employees
d. To organize the workflow

Q16. Which of the following is the knowledge that people carry in their minds and therefore difficult to have access?
a. Explicit knowledge
c. Procedural knowledge
b. Tacit knowledge
d. Declarative knowledge

Q17. The following are the characteristics of Positive Stress:
a. It improves performance
c. It motivates
b. It feels exciting
d. All of the above

Q18. What do you call a style of leadership that takes account of others' views, opinions and ideas?
a. Laissez-faire
c. Democratic
b. People-oriented
d. Autocratic

Q19. Plans that apply to an entire organization and establish the organization's overall goal are known as:
a. Specific Plans
c. Strategic plans
b. Directional Plans
d. Tactical plans

Q20. Globalization helps to:
a. Accumulate more profit
c. Develop export sphere
b. Increase Earnings per share
d. Make competitive decision

# MID-WESTERN UNIVERSITY <br> EXAMINATIONS MANAGEMENT OFFICE <br> FINAL EXAMINATION: 2019 <br> MASTER OF BUSINESS ADMINISTRATION (MBA) <br> SEMESTER - I 

| Subject: Foundations of Management | Course Code: MGT 511 |
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Full Marks: 100
Time: 4:00 Hours
You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION B: SHORT ANSWER QUESTIONS (5X6 = 30 MARKS)

## Answer any FIVE questions:

Q1. Define Decision making. How does a manager makes decisions under conditions of certainty, risk and uncertainty?
Q2. Identify barriers to effective interpersonal communication and describe how technology affects managerial communication and organizations.
Q3. What are the reasons for resistance to change? Discuss techniques that have potential to overcome resistance.
Q4. Explain how the global political/legal and economic environments affect managers of global organizations.
Q5. Outline the managerial role identified by Mintzberg. Give example of each role.
Q6. What are the components of general environment? Elaborate with suitable examples.
Q7. Briefly describe the conflict resolution model.

## SECTION C: LONG ANSWER QUESTIONS (2X15 = 30 MARKS)

Answer any TWO questions:
Q8. "Management is undoubtedly one of humankind's most important inventions." Do you agree with this statement? Link your opinion with development of different management thoughts.
Q9. With the availability of advanced information technology that allows an organization's work to be done anywhere at any time, is organizing still an important managerial function? Justify your answer.
Q10. Describe the various approaches to social responsibilities along with the arguments for and against it.

## SECTION D: CASE STUDY ( 20 MARKS)

Q11. Read a case given below and answer the following questions:
In many ways McDonald's Corporation has written the book on global expansion. Every day, on average, somewhere around the world 4.2 new McDonald's restaurants are opened. By 2004, the company had 30,000 restaurants in more than 120 countries that collectively served close to 50 million customers each day.

One of the latest additions to McDonald's list of countries hosting the famous golden arches is India, where McDonald's started to establish restaurants in the late 1990s. Although India is a poor nation, the large and relatively prosperous middle class, estimated to be number between 150 million and 200 million, attracted McDonald's. India, however, offered McDonald's unique challenges. For thousands of years, India's Hindu culture has revered the cow. Hindu scriptures state that the cow is a gift of the gods to the human race. The cow represents the Divine Mother that sustains all human beings. Cows give birth to bulls that are harnessed to pull plows, cow milk is highly valued and used to produce yoghurt and ghee, cow urine has a unique place in traditional Hindu medicine, and cow dung is used as fuel. Some 300 million of these animals roam India, untethered, revered as sacred providers. They are everywhere, ambling down roads, gazing in rubbish dumps, and resting in temples - everywhere, that is, except on your plate, for Hindus do not eat the meat of sacred cow.
McDonald's is the world's largest user of beef. Since its founding in 1955, countless animals have died to produce Big Macs. How can a company whose fortunes are built upon beef enter a country where the consumption of beef is a grave sin? Use pork instead? However, there are some 140 million Muslims in India, and Muslims don't eat pork. This leaves chicken and mutton. McDonald's responded to cultural food dilemma by creating an India version of its Big Mac - the "Maharaja Mac" which is made from mutton. Other additions to the menu conform to local sensibilities such as the "McAlooTikki Burger", which is made from chicken. All foods are strictly segregated into vegetarian and non vegetarian lines to conform with preferences in a country where many Hindus are vegetarian. According to the head of McDonald's Indian operations, "We had to reinvent ourselves for the Indian plate."
For a while, this seemed to work. Then in 2001 McDonald's was blindsided by a class-action law suit brought against it in the United States by three Indian businessmen living in Seattle. The businessmen, all vegetarian and two of whom were Hindus, sued McDonald's for "fraudulently concealing" the existence of beef in McDonald's French fries! McDonald's had said it used only 100 percent vegetable oil to make French fries, but the company soon admitted that it used a "miniscule" amount of beef extract in the oil. McDonald's settled the suit for $\$ 10$ million and issued an apology, which read, "McDonald's sincerely apologizes to Hindus, vegetarians, and others for failing to provide the kind of information they needed to make informed dietary decisions at our U.S. restaurants." Going forward, the company pledged to do a better job of labeling the ingredients of its foods and to find a substitute for the beef extract used in its oil.

However, news travels fast in the global society of the twenty-first century, and the revelation that McDonald's used beef extract in its oil was enough to bring Hindu nationalists onto the streets in Delhi, where they vandalized one McDonald's restaurant, causing $\$ 45,000$ in damage; shouted slogans outside of another; picketed the company's headquarters; and called on Indian Prime Minister to close McDonald's stores in the country. McDonald's Indian franchise holders quickly issued denials that they used oil that contained beef extracts, and Hindu extremists responded by stating that they would submit McDonald's oil to laboratory tests to see if they could detect beef extract.
The negative publicity seemed to have little impact on McDonald's long-term plans in India, however. The company continued to open restaurants, and by 2005 had 65 restaurants in the country with plans to open another 30 or so. When asked why they frequented McDonald's restaurants, Indian customers noted that their children enjoyed the "American" experience, the food was of a consistent quality, and the toilets were always clean!

## Questions:

a. How do you justify McDonald's move to "reinvent" them by introducing Indian versions of Mc food items?
b. McDonald's were using beef extracts in the oil in the restaurants in U.S. and in U.S. culture this practice no way is against the tradition. Yet, it faced problem. How would you explain this?
c. Do you think the protests in India were justified? Should McDonald's franchise holders in India react in different manner?
d. "Hindu belief about the cow is funny and it is simply their ignorance. They should be educated and made aware of reality." This was the reaction of one of the McDonald's executive in U.S. Do you agree with her? Why or why not?(4)
e. What lesson can be learnt by Global Business firms from this case?

## SECTION A: MULTIPLE CHOICE QUESTIONS ( $\mathbf{1} \times \mathbf{2 0}=\mathbf{2 0}$ MARKS)/ (TIME: 20 MINUTES)

Tick the best answers.
Q1. Generally we can argue that critical thinking is:
a. Reasoning skill
c. Communication
b. Divergent skill
d. Participation

Q2. Which statement is true with creativity?
a. Creativity is originality and novelty
b. Creativity is the smart tendency
c. Philosophical inquiry
d. Numerical analysis

Q3. What does fallacious reasoning mean?
a. A statement which looks logical but appears to be false after analysis.
b. It is thinking that promotes personal goal.
c. It is a correct tool for understanding vague issue.
d. It is a kind of fact-finding science.

Q4. When you focus on maximizing the minimum gain in game theory, you are applying ... strategy.
a. Maximin
c. Minimax
b. Dominant
d. Iterative

Q5. Which one of the following is a true characteristic of a critical thinker?
a. Think in multiple ways that are logically impressive and unclear
b. Just go beyond limitation and influence others
c. Argue for and against with evidence
d. Generate new ideas to be popular

Q6. Deductive reasoning refers to $\qquad$
a. Testing theory
c. Interpreting text and number
b. Generation of theory
d. Identifying real problem

Q7. Identify the type of fallacy in the argument: Many medical students receiving scholarship are from government schools. I think I should educate my son at government school so he will receive scholarship.
a. Hasty generalization
c. Appeal to authority
b. Appeal to ignorance
d. Weak analogy

Q8. Creative people not only scrutinize and judge their ideas or projects, they also seek:
a. Acceptance
c. Criticism
b. Appreciation
d. Money

Q9. A $\ldots \ldots \ldots .$. is the difference between the actual state and the desired state.
a. Situation
c. Sum
b. Problem
d. Reality

Q10. ..............decision making describes how humans actually make decisions.
a. Normative
c. Behavioral
b. Simple
d. Professional

Q11. The term fuzzy logic was coined by:
a. Dr. LotfiZadeh
c. Dr. Appy Fizz
b. Dr. Judith Hans
d. Dr. LogiGless

Q12. Group decision making process is also known as:
a. Interactive approach
b. Autocratic activity
c. Bottom-down approach
d. Managerial fact

Q13. Which of the following decision making style is used a manager with intuitive way of thinking and high tolerance for ambiguity?
a. Behavioral
b. Analytic
c. Directive
d. Conceptual

Q14. .......... deals with spontaneous creation.
a. Technical creativity
b. Primary creativity
c. Inventive creativity
d. Secondary creativity

Q15. A $\ldots \ldots \ldots \ldots$ approach to decision making may mean that you not only have more alternatives but you also have different ways to gather information to make more informed choices:
a. Deliberate
b. Spontaneous
c. Agonizing
d. Flexible

Q16. The two main branches of game theory are:
a. No loss and More loss
b. Cooperative and Non-cooperative
c. External and Internal
d. Individual and group

Q17. Which of the followings is the correct statement regarding an argument?
a. An argument is a statement in which conclusion is derived from earlier proposition.
b. An argument is a statement that focuses on subjectivity.
c. An argument is the part of logic.
d. An argument is the fact to be investigated.

Q18. What does the zero-sum indicate in game theory?
a. Cooperative strategy with win-win relation
b. Mixed method strategy
c. The sum gained by a player is equal to sum lost by another players
d. A finite game with number of possible strategies

Q19. .......... is imitation of a process or situation.
a. Creativity
b. Simulation
c. Solution
d. Conceptualization

Q20. Behavioral theories of decision making focuses on:
a. How managers should make decisions
b. How to make decisions
c. How managers actually make decisions
d. How to behave

# MID-WESTERN UNIVERSITY EXAMINATIONS MANAGEMENT OFFICE <br> FINAL EXAMINATION: 2019 <br> MASTER OF BUSINESS ADMINISTRATION (MBA) <br> SEMESTER - I 

Subject: Critical Thinking
Full Marks: 100 Time: 4:00 Hours
You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION B: SHORT ANSWER QUESTIONS (5X6 = 30 MARKS)

Answer any FIVE questions:
Q1. Write a definition of critical thinking. Briefly describe relevance of critical thinking to business organization.
Q2. How could a manager use the cause and effect method to solve organizational problem?
Q3. Reality is fuzzy. Elaborate on the usefulness of fuzzy logic in organizational management.
Q4. Explain the snowflake model of creativity.
Q5. Critically examine relationship between inductive logic and creative thinking.
Q6. Illustrate your understanding of scientific problem solving method with suitable examples.
Q7. Write a description on simulation as a process that includes several steps.

## SECTION C: LONG ANSWER QUESTIONS (2X15 = 30 MARKS)

Answer any TWO questions:
Q8. Write about common critical and creative thinking skills which guide each successful person to overcome difficulty and uncertainty.

Q9. What is game theory? List the differences between a pure and a mixed strategy. How do both strategies help in managerial decision making?
(3+6+6)
Q10. "Cognitive structure deliberately determines the problem solving skill and process." Justify the statement with examples.

## SECTION D: CASE STUDY (20 MARKS)

Q11. Read a case given below and answer the following questions:

## Harry Smart - Or Is He?

Harry Smart, a very bright and ambitious young executive, was born and raised in Delhi and graduated from Delhi University. He met his future wife, Barbara, who was also from the same place, in the university. They were married the day after they both graduated cum laude. Harry then went to IIM, where he received MBA and Barbara earned a law degree from Delhi University. Harry is now in seventh year with Brand Corporation, which is located in Delhi and Barbara has a position in a Delhi Law Firm.
As a part of expansion program, the board of directors of Brand has decided to build a new branch plant. The president personally selected Harry to be the manager of the new plant and informed that a job well done would guarantee him a vice presidency in the corporation. He was appointed as the chairperson, with final decision making privilege, of an ad hoc committee to determine the location of the new plant. The committee consists of experts from different areas - transportation, marketing, distribution, labour economics and public relations. He assigned the committee members to come up with idea about the best location within one month. A month passed and the meeting reconvened. After weighing all variables, experts recommended Lucknow, Surathand Chandigad. Harry could easily see that the committee members put a great deal of time and effort into their report and recommendations. A spokesperson for a group emphasized that there was a definite consensus that Lucknow city was the best location. Harry thanked and told them that he would like to study the report in more depth before the final decision.
After the dinner that evening, Harry asked his wife, "Honey, how would you like to move to Lucknow City?" her answer was quick and sharp - heaven no! "I lived here all my life and I am not about to move out into the hinterlands. I have heard the biggest attraction in Lucknow is the old fashioned industries and culture. That kind of life is not for me." Harry weakly protested, "But honey my committee strongly recommended this place as the best location for new plant. The second choice was Surath and the third Chandigad." His wife thought a moment and then replied "Well, I would consider relocating to or commuting from Chandigad, but if you insist on Lucknow, you will have to go by yourself."
The next day Harry called his committee together and said, "You should all be commended for doing excellent job on this report. However, after detailed study, I am convinced that Chandigad will meet the needs of our plant better than Lucknow or the other. Therefore the decision will be to locate the new plant in Chandigad. Once again thank you all for a job well done".
a) Identify the main gist of the case including important facts, problems and assumptions.
b) Did Harry make a good decision? Why or why not?
c) What is the potential impact of his decision in favor of Chandigad? Is he a critical thinker?
d) How should Harry have acted in pursuit of a decision that would satisfy both his wife and the company?

## SECTION A: MULTIPLE CHOICE QUESTIONS ( $\mathbf{~} \times \mathbf{2 0}=\mathbf{2 0}$ MARKS)/ (TIME: 20 MINUTES)

Tick the best answers.
Q1. The Latin word 'communicare' means to:
a. impart
c. communicate
b. talk
d. engage

Q2. Business communication is marked by formality as against:
a. formal communication
c. professional communication
b. personal communication
d. official Communication

Q3. Communication in an organizational setting are mainly:
a. only one type
c. three types
b. two types
d. five types

Q4. Which of the following is not the example of formal communication network?
a. management board launches some new plan and policies to the employees
b. an organization sends a letter to its franchises
c. discussion of the consumers in canteen
d. a memo circulated within the organization for a meeting.

Q5. Learn to keep technology in perspective refers to:
a. guard against information overload and information addiction
b. using technological tools productively
c. technological tools should be used for business rather than person benefit
d. keeping technology in control and use it rather than being used from it.

Q6. Which of the following is equally popular media for both personal and business purpose?
a. emails
c. websites
b. podcasts
d. instant messages

Q7. It is important to check email address, subject line, signature and so on at:
a. planning stage
c. completing stage
b. writing stage
d. before you send

Q8. Which of the following is not the major way that businesses are using blogs:
a. Project management and team communication.
b. company news
c. customer Support
d. maintain the relation

Q9. The statement "If your blog is established to provide the information and discussion about a specific area" refers to:
a. audience
c. scope
b. purpose
d. role

Q10. Podcast is very useful when the speaker sends messages through teleconferences:
a. without the target audiences
b. when the message is in visual form
c. when the message is in audio form
d. to treat as a supplementary to your blog

Q11. What are the three steps processes of podcasting?
a. planning, writing and completing
c. Planning, writing and audience
b. planning, purpose and audience
d. planning, purpose and completing

Q12. Adapt to other culture for minimizing crises created by diversity does not mean:
a. Ignoring the "Golden Rule"
b. being tolerant, respectful, and flexible
c. Practicing patience and keeping a sense of humor
d. listening and reading carefully

Q13. There are mainly .........types of report.
a. two
c. four
b. three
d. five

Q14. Statement of the purpose and scope of your investigation comes under:
a. analyze the situation
c. develop a work plan
b. develop an audience profile
d. gathering information

Q15. In technical report which of the following should be avoided?
a. facts
c. objective evaluation
b. logical conclusion
d. subjective evaluation

Q16. The chronological development of information in the body of the report is done according to the:
a. logical sequence of events
c. choice of the writer
b. collection of data
d. order in which events occurred

Q17. Paralanguage is a kind of action language that refers to:
a. actual words
b. the tone of voice, speed of speech, and hesitation
c. body language
d. personal space

Q18. To make a presentation effective and impressive, you should use:
a. complex sentences
c. a simple and active form of sentences
b. passive sentences
d. jargon

Q19. Which of the following is not a barrier to effective communication?
a. Value judgment
c. self-preoccupation
b. Jumping to conclusion
d. careful listening

Q20. The major Technique that will help to convert anxiety to positive energy in presentation is not:
a. know your audience
c. know your subject
b. stop worrying about being perfect
d. Practice, Practice, Practice

# MID-WESTERN UNIVERSITY <br> EXAMINATIONS MANAGEMENT OFFICE <br> FINAL EXAMINATION: 2019 <br> MASTER OF BUSINESS ADMINISTRATION (MBA) <br> SEMESTER - I 

You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION B: SHORT ANSWER QUESTIONS (5X6 = 30 MARKS)

## Answer any FIVE questions:

Q1. "Business Communication is the life blood of any organization." Justify the statement with relevant examples. (6)
Q2. What are the principles of effective communication? Enlist them.
Q3. Compare and contrast between formal communication network and informal communication network.
Q4. Reconnecting with the people has become an issue to the technologically advanced communication. Do you agree or disagree? Give your arguments.

Q5. What are the major benefits of having blog for business and professional development? Enumerate.
Q6. How do you prepare the brief message for the podcast? Mention the steps of developing effective message to it. ( $3+3$ )
Q7. Describe briefly about the five essential supportive strategies to overcome the anxiety during oral presentation. (6)

## SECTION C: LONG ANSWER QUESTIONS (2X15 = 30 MARKS)

Answer any TWO questions:
Q8. Discuss in detail the communication process with the diagram. How does each aspect in the process coordinate each other?

Q9. What are the basic parts of report and proposals? How can you make each part of report and proposals effective and professional?

Q10. Many businessmen believe that communication in the world of diversity is both challenge and opportunity. Justify the statement with suitable examples to support your answer.

## SECTION D: CASE STUDY ( 20 MARKS)

Q11. Read the case given below and answer the following questions:

## A Memo to all staff of KFC

Nepal has been declared Federal Republic on May 28, 2008. The country's governance policy has experienced tremendous change after allocating its territory into seven different provinces. Now every state can formulate the policy regarding business, tax plan, social security etc. The city of Kathmandu now belongs to the province number three and it has mandated that employees "shall adopt, implement, and maintain a written smoking policy which shall contain a prohibition against restrooms and infirmaries." Employers must also maintain a nonsmoking area of not less than two thirds of the seating capacity in cafeterias, lunchrooms, and employee lounges, and make effort to work out disputes between smokers and nonsmokers."Being the director of Human Resources at Kentucky Fried Chicken (KFC), a multinational food chain, Darbarmarg, Kathmandu write a memo to all the staffs of KFC announcing the new restriction, and tell them that you want them to set up departmental committees to mediate any smoking conflicts before complaints surface.

## Questions:

a. Explain why this is a good policy.
b. What are the possible threats in the application level of this policy?
c. Do you think are there any cultural and social issues that influence either positively or negatively this policy? Describe with examples.

## SECTION A: MULTIPLE CHOICE QUESTIONS ( $\mathbf{1} \times \mathbf{2 0}=\mathbf{2 0}$ MARKS)/ (TIME: 20 MINUTES)

Tick the best answers.
Q1. The capacity of information that makes difference in a decision.
(a) Reliability
(c) Opportunity
(b) Information
(d) Relevance

Q2. The practices of using the least optimistic estimate when two estimates of accounts are about equally likely.
(a) Conservatism
(c) Materiality
(b) Relevance
(d) Consistency

Q3. The quality of accounting information that allows a user to analyze two or more companies and look for similarities and differences. $\qquad$
(a) Consistency
(c) Comparability
(b) Faithful representation
(d) None of above

Q4. The quality of accounting information that allows a user to compare two or more accounting periods for single company.
(a) Conservatism
(c) Comparable
(b) Matching
(d) consistency

Q5. In the cost of goods sold statement, the sum of labor cost and the factory overhead is known as:
(a) Conversion cost
(c) Prime cost
(b) Total factory cost
(d) Cost of goods manufactured

Q6. Who ultimately has responsibility for a company's financial statements?
(a) Stockholders
(c) Management
(b) External Auditors
(d) Securities and Exchange Commission

Q7. Part of master budget which covers capital expenditures, budgeted statement of cash flows and balance sheet is classified as
(a) Financial budget
(c) Capital budget
(b) Cash flows budget
(d) Balanced budget

Q8. Which of the following steps in the accounting cycle is not in the correct order?
(a) Journalize transactions and post them to accounts in the ledger
(b) Prepare a work sheet and prepare financial statements
(c) Close the accounts and record and post adjusting entries
(d) All of the above

Q9. Which of the following steps in the accounting cycle is not performed at the end of the accounting period?
(a) Collect and analyze information from source documents
(b) Prepare a work sheet
(c) Record and post adjusting entries
(d) Close the accounts

Q10. A work sheet
(a) is not one of the financial statements
(b) is one of the four basic financial statements
(c) should be prepared at the beginning of each accounting period
(d) is none of the above

Q11. Which of the following is a cash equivalent?
(a) an investment in the common stock of another company
(b) an investment in the bonds of another company
(c) a money market account
(d) none of the above

Q12. The first line on a company's statement of cash flows is net income. Which does the company use to prepare its statement?
(a) direct
(c) operatin
(b) indirect
(d) It is not possible to tell from the information provided

Q13. Oak began the year with a balance of Rs5000 in Accounts Receivable and ended the year Rs8000 in the account. Revenues for the period amounted to Rs37000. Under the direct method, Oak will report cash collected from customers of
(a) Rs34000
(b) Rs37000
(c) Rs 4000
(d) Rs 42000

Q14. Which of the following should be classified as an investing activity on the statement of cash flows?
(a) issuance of the stock
(c) payments of dividends
(b) payment to suppliers for inventory
(d) none of the above

Q15. How should the repurchase of a company's own stock be reported on the statement of cash flows?
(a) as an investing activity
(b) as an operating activity
(c) as a financing activity
(d) Repurchase of a company's own stock is not reported on the statement of cash flows.

Q16. Where are cash equivalent reported?
(a) in the operating activities section of the statement of cash flows
(b) in the financing activities section of the statement of cash flows
(c) on neither the balance sheet nor the statement of cash flows
(d) none of the above

Q17. Which of the following statements is not true for business organization?
(a) Sole proprietorship is an easy type of business to form
(b) It is easier for a corporation to raise huge amount rather than for a sole proprietorship or partnership
(c) A corporation has tax advantages over the other forms of business organization
(d) Owners of sole proprietorships and partnerships have unlimited liability for the debts of the business while owners of corporations have limited legal liability
Q18.Financial Statement deals with:
(a) Company better off at the end of the year than at the beginning of the year
(b) Company resources
(c) Use of cash during the period
(d) All of the above

Q19. Current assets divided by current liabilities.
(a) Quick ratio
(c) Current ratio
(b) Working capital
(d) None of the above

Q20.The opinion rendered by a public accounting firm concerning the fairness of the presentation of the financial statements.
(a) Auditor's report
(c) Operating cycle
(b) Conservatism
(d) All of the above

You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION B: SHORT ANSWER QUESTIONS (5X6 = 30 MARKS)

Answer any FIVE questions:
Q1. Explain the difference between financial accounting and Management accounting. (6)
Q2. Who are the users of accounting information? What are the uses of accounting information to them separately? Explain in brief. $(3+3)$

Q3. Presented under the list of accounts for Global Co. Ltd. as at December 31, 2018:
Global Co. Ltd.
Trial Balance as at 31, December 2018

| Heads | Debit (Rs.) | Credit (Rs.) |
| :--- | :--- | :--- |
| Cash and Bank | 16,000 |  |
| Receivable | 11,000 |  |
| Inventories | 14,000 |  |
| Prepaid expenses | 500 |  |
| Property, plant and equipment | 27,000 |  |
| Franchise agreement | 20,000 | 6,000 |
| Goodwill | 5,000 | 3,000 |
| Notes payable |  | 3,000 |
| Account payable | 6,000 |  |
| Accrued payroll | 14,500 |  |
| Advances on sales | 21,000 |  |
| Others current liabilities |  | 19,500 |
| Long term debt |  | 5,000 |
| Other non-current liabilities |  | 10,000 |
| Preferred stock Rs. 10 per | 6,000 |  |
| Common stock 100 per value |  | 1,000 |
| Retained earnings (Dec. 31, 2017) |  | 31,000 |
| Capital in excess of par | 15,000 |  |
| Sales | 1,500 |  |
| Cost of goods sold | 1,000 | 1,000 |
| Selling expenses |  |  |
| Interest expenses | 1,000 |  |
| Gain on sales of machine | 4,000 |  |
| Income taxes | 5,000 | $1,27,000$ |
| Cash dividends | 5,000 |  |
| Administrative expenses | 1,000 |  |
| Goodwill amortization | $1,27,000$ |  |
| Sales returns |  |  |
| Total |  |  |

Required:
a. Prepare Income Statement for 2018 (using multi step format) (2)
b. Prepare Statement of retained earnings. (1)
c. Prepare Balance sheet as on the date (using vertical classified format) (3)

Q4. The following information has been extracted from the accounting records of a Power Diversion Corporation for the last year: Selling expenses Rs.140,000
Raw materials inventory, January 1 . . . . . . . . . . . 90,000
Raw materials inventory, December 31 . . . . . . . . . 60,000
Utilities, factory . . . . . . . . . . . . . . . . . . . . . . . . . . . . 36,000
Direct labor cost . . . . . . . . . . . . . . . . . . . . . . . . . . . 150,000
Depreciation, factory . . . . . . . . . . . . . . . . . . . . . . . . 162,000
Purchases of raw materials . . . . . . . . . . . . . . . . . .750,000
Sales . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .2,500,000
Insurance, factory . . . . . . . . . . . . . . . . . . . . . . . . . 40,000
Supplies, factory . . . . . . . . . . . . . . . . . . . . . . . . . . . 15,000
Administrative expenses . . . . . . . . . . . . . . . . . . . . . 270,000
Indirect labor . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 300,000
Maintenance, factory . . . . . . . . . . . . . . . . . . . . . . . . 87,000
Work in process inventory, January 1 . . . . . . . . . . 180,000
Work in process inventory, December 31 . . . . . . . 100,000
Finished goods inventory, January 1 . . . . . . . . . . . 260,000
Finished goods inventory, December 31 . . . . . . . . 210,000
Management wants these data organized in a better format so that financial statements can be prepared for the year.
Required:
a. Prepare a schedule of cost of goods manufactured (2)
b. Compute the cost of goods sold (2)
c. Prepare an income statement. (2)

Q5. Write short notes and distinguish between the following: (a) direct materials, (b) indirect materials, (c) direct labor, (d) indirect labor, (e) manufacturing overhead and (f) fixed overhead. (6)
Q6. Memo fax, Inc., produces memory enhancement kits for fax machines. Sales have been very erratic, with some months showing a profit and some months showing a loss. The company's contribution format income statement for the most recent month is given below:

Sales (13,500 units at Rs. 20 per unit) . . . . . .Rs. 270,000
Variable expenses . . . . . . . . . . . . . . . . . . . . . . . 189,000
Contribution margin . . . . . . . . . . . . . . . . . . . . . . 81,000
Fixed expenses . . . . . . . . . . . . . . . . . . . . . . . . . 90,000
Net operating loss . . . . . . . . . . . . . . . . . . . . . . . $(9,000)$
Required:
a. Compute the company's CM ratio and its break-even point in both units and dollars. (3)
b. The sales manager feels that an Rs. 8,000 increase in the monthly advertising budget, combined with an intensified effort by the sales staff, will result in a Rs.70,000 increase in monthly sales. If the sales manager is right, what will be the effect on the company's monthly net operating income or loss? (Use the incremental approach in preparing your answer.) (3)
Q7. Examine the cost volume profit analysis underlying assumptions. Explain the use of BEP in decision making process. (3+3)

## SECTION C: LONG ANSWER QUESTIONS (2X15 = 30 MARKS)

Answer any TWO questions:
Q8. The following financial statements are extracted from the books of Share Inc. For the year ended 31st December 2018. Income statement for the year ended

December 31, 2018

| Revenue and gains | Amounts (Rs.) |
| :--- | ---: |
| Sales revenue | 670,000 |
| Interest revenue | 15,000 |
| Gain on sale of machine | 5,000 |
| Total revenue and gains | 690,000 |
| Expenses and loss |  |
| Cost of goods sold | 390,000 |
| Salaries and wages | 60,000 |
| Depreciation | 40,000 |
| Insurance | 12,000 |
| Interest | 15,000 |
| Income tax | 50,000 |
| Loss on retirement of bonds | 3,000 |
| Total expenses and loss | 570,000 |
| Total | 120,000 |

Share Inc.
Balance sheet
As of December 31

| Particulars | 2018 | 2017 |
| :--- | ---: | ---: |
| Cash | 35,000 | 46,000 |
| Bills receivable | 63,000 | 57,000 |
| Inventory | 84,000 | 92,000 |
| Prepaid expenses | 12,000 | 18,000 |
| Total current assets | $\mathbf{1 9 4 , 0 0 0}$ | $\mathbf{2 1 3 , 0 0 0}$ |
| Long term investment | 120,000 | 90,000 |
| Land | 150,000 | $1,00,000$ |
| Property and equipment | 320,000 | 280,000 |
| Accumulated depreciation | $\mathbf{1 , 0 0 , 0 0 0 )}$ | $\mathbf{( 7 5 , 0 0 0 )}$ |
| Total long term assets | $\mathbf{4 9 0 , 0 0 0}$ | $\mathbf{3 9 5 , 0 0 0}$ |
| Total assets | $\mathbf{6 8 4 , 0 0 0}$ | $\mathbf{6 0 8 , 0 0 0}$ |
| Accounts payable | 38,000 | 31,000 |
| Salaries and wages payable | 7,000 | 9,000 |
| Income taxes payable | $\mathbf{5 3 , 0 0 0}$ | 5,000 |
| Total current liabilities | 85,000 | 35,000 |
| Notes payable | $2,00,000$ | $2,60,000$ |
| Bonds payable | $\mathbf{2 , 8 5 , 0 0 0}$ | $\mathbf{2 , 9 5 , 0 0 0}$ |
| Total long-term liabilities | $1,00,000$ | 75,000 |
| Capital stock | 246,000 | 193,000 |
| Retained earning | $\mathbf{3 4 6 , 0 0 0}$ | $\mathbf{2 6 8 , 0 0 0}$ |
| Total stockholder's equity | $\mathbf{6 8 4 , 0 0 0}$ | $\mathbf{6 , 0 8 , 0 0 0}$ |
| Total liabilities and stockholder's equity |  |  |

Additional information:
i) Land was purchased by issuing Rs. 50,000 note payable.
ii) A machine with an original cost of Rs. 35,000 and a book value of Rs. 20,000 was sold for Rs.25, 000 .

Required:
a. Statement of cash flows using indirect method for the year ended December 31, 2001.
b. Explain how cash balance decreased in 2018 in such a profitable year.

Q9. A Seasonal Trading Corporation manufactures and sells a seasonal product that has peak sales in the third quarter. The following information concerns operations for Year 2-the coming year - and for the first two quarters of Year 3:
a. The company's single product sells for Rs. 8 per unit. Budgeted sales in units for the next six quarters are as follows (all sales are on credit):

|  | Year 2 Quarters |  |  | Year 3 Quarters |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 | 4 | 1 | 2 |
| Budgeted <br> unit sales | 40,000 | 60,000 | 100,000 | 50,000 | 70,000 | 80,000 |

b. Sales are collected in the following pattern: $75 \%$ in the quarter the sales are made, and the remaining $25 \%$ in the following quarter. On January 1, Year 2, the company's balance sheet showed Rs. 65,000 in accounts receivable, all of which will be collected in the first quarter of the year. Bad debts are negligible and can be ignored.
c. The company desires an ending finished goods inventory at the end of each quarter equal to $30 \%$ of the budgeted unit sales for the next quarter. On December 31, Year 1, the company had 12,000 units on hand.
d. Five pounds of raw materials are required to complete one unit of product. The company requires ending raw materials inventory at the end of each quarter equal to $10 \%$ of the following quarter's production needs. On December 31, Year 1, the company had 23,000 pounds of raw materials on hand.
e. The raw material costs Rs. 0.80 per pound. Raw material purchases are paid for in the following pattern: $60 \%$ paid in the quarter the purchases are made, and the remaining $40 \%$ paid in the following quarter. On January 1, Year 2, the company's balance sheet showed Rs. 81,500 in accounts payable for raw material purchases, all of which will be paid for in the first quarter of the year.

## Required:

Prepare the following budgets and schedules for the year, showing both quarterly and total figures:
a. A sales budget and a schedule of expected cash collections. (5)
b. Production budget. (3)
c. A direct materials budget and a schedule of expected cash payments for purchases of materials. (7)

Q10. "Financial Accounting is fully guided by Generally Accepted Accounting Principles. Explain the Accounting Concept and Principles with appropriate examples. (5+10)

## SECTION D: CASE STUDY (20 MARKS)

Q11. Read the case given below and answer the following questions:
Tom Emory and Jim Morris strolled back to their plant from the administrative offices of Ferguson \& Son Manufacturing Company. Tom is manager of the machine shop in the company's factory; Jim is manager of the equipment maintenance department. The men had just attended the monthly performance evaluation meeting for plant department heads. These meetings had been held on the third Tuesday of each month since Robert Ferguson, Jr., the president's son, had become plant manager a year earlier. As they were walking, Tom Emory spoke: "Boy, I hate those meetings! I never know whether my department's accounting reports will show good or bad performance. I'm beginning to expect the worst. If the accountants say I saved the company a dollar, I'm called 'Sir,' but if I spend even a little too much-boy, do I get in trouble. I don't know if I can hold on until I retire."
Tom had just been given the worst evaluation he had ever received in his long career with Ferguson\& Son. He was the most respected of the experienced machinists in the company. He had been with Ferguson \& Son for many years and was promoted to supervisor of the machine shop when the company expanded and moved to its present location. The president (Robert Ferguson, Sr.) had often stated that the company's success was due to the high-quality work of machinists like Tom. As supervisor, Tom stressed the importance of craftsmanship and told his workers that he wanted no sloppy work coming from his department.
When Robert Ferguson, Jr., became the plant manager, he directed that monthly performance comparisons be made between actual and budgeted costs for each department. The departmental budgets were intended to encourage the supervisors to reduce inefficiencies and to seek cost reduction opportunities. The company controller was instructed to have his staff "tighten" the budget slightly whenever a department attained its budget in a given month; this was done to reinforce the plant manager's desire to reduce costs. The young plant manager often stressed the importance of continued progress toward attaining the budget; he also made it known that he kept a file of these performance reports for future reference when he succeeded his father.
Tom Emory's conversation with Jim Morris continued as follows:
Emory: I really don't understand. We've worked so hard to meet the budget, and the minute we do so they tighten it on us. We can't work any faster and still maintain quality. I think my men are ready to quit trying. Besides, those reports don't tell the whole story. We always seem to be interrupting the big jobs for all those small rush orders. All that setup and machine adjustment time is killing us. And quite frankly, Jim, you were no help. When our hydraulic press broke down last month, your people were nowhere to be found. We had to take it apart ourselves and got stuck with all that idle time.
Morris: I'm sorry about that, Tom, but you know my department has had trouble making budget, too. We were running well behind at the time of that problem, and if we'd spent a day on that old machine, we would never have made it up. Instead we made the scheduled inspections of the forklift trucks because we knew we could do those in less than the budgeted time.
Emory: Well, Jim, at least you have some options. I'm locked into what the scheduling department assigns to me and you know they're being harassed by sales for those special orders. Incidentally, why didn't your report show all the supplies you guys wasted last month when you were working in Bill's department?
Morris: We're not out of the woods on that deal yet. We charged the maximum we could to other work and haven't even reported some of it yet.
Emory: Well, I'm glad you have a way of getting out of the pressure. The accountants seem to know everything that's happening in my department, sometimes even before I do. I thought all that budget and accounting stuff was supposed to help, but it just gets me into trouble. It's all a big pain. I'm trying to put out quality work; they're trying to save pennies.

## Required:

a. Identify the problems that appear to exist in Ferguson \& Son Manufacturing Company's budgetary control system and explain how the problems are likely to reduce the effectiveness of the system. (5+5)
b. Explain how Ferguson \& Son Manufacturing Company's budgetary control system could be revised to improve its effectiveness. (5+5)

## SECTION A: MULTIPLE CHOICE QUESTIONS ( $\mathbf{1} \times \mathbf{2 0}=\mathbf{2 0}$ MARKS)/ (TIME: 20 MINUTES)

Tick the best answers.
Q1. Research that is conducted without having a specific decision in mind is called:
a. Basic business research
c. Evaluation research
b. Applied business research
d. None of above

Q2. When a company changes the price on one of its product in order to determine its effect on unit sales, what type of research is this?
a. Causal research
c. Descriptive research
b. Exploratory research
d. Concomitant research

Q3. In a statement such as: "If we increase price by 3 percent, we expect that dollar sales will decrease by 4 percent," what type of variable is dollar sales?
a. Independent
c. Dependent
b. Categorical
d. Pseudo

Q4. Which of the following is the most popular method of generating primary data in business research?
a. An experiment
c. A descriptive study
b. A survey
d. A causal study

Q5. A list of people in the target market from which a sample of people will be selected is called a:
a. sampling frame
c. purposive sample
b. judgment sample
d. cluster sample

Q6. When all visitors to an Internet site are asked to fill out a pop-up survey, what type of sample does this represent?
a. Stratified sample
c. Cluster sample
b. Convenience sample
d. Quota sample

Q7. All of the following are examples of nonprobability samples except:
a. a convenience sample
c. a quota sample
b. a simple random sample
d. a judgment sample

Q8. When the results of a test market in Kathmandu are used to estimate the market share for a new product nationally, this is an example of what type of statistics?
a. Variance statistics
c. Normal statistics
b. Inferential statistics
d. Descriptive statistics

Q9. The point in the distribution below which, and above which, 50 percent of the people in the study score is called the:
a. mean
c. median
b. standard deviation
d. mode

Q10. A one-hour discussion with a group of six to ten members of the target market to determine their interest in purchasing a new model of a car is an example of $a(n)$ :
a. descriptive study
c. causal study
b. experiment
d. focus group discussion

Q11. Typically, which of the following is the most expensive type of survey to conduct per respondent?
a. Mail survey
c. Internet survey
b. Phone survey
d. Personal interview

Q12. What is wrong in the following questionnaire?
How many children do you have? $\qquad$
$\qquad$
$\qquad$
$\qquad$ 3 $\qquad$ 4
a. The choices are not exhaustive.
b. The choices are not mutually exclusive.
c. This is a double-barreled question.
d. It is a loaded question.

Q13. What type of question is the following?
Should Manish continue its excellent gift-wrapping service? $\qquad$ Yes $\qquad$ No
a. Loaded
c. Open-ended
b. Double-barreled
d. Leading

Q14. The process of checking data to see if any questions have been skipped is part of which process?
a. Coding
c. Dummy coding
b. Test tabulation
d. Editing

Q15. The process of assigning a "number" to a set of data points is called:
a. convergent validity
c. measurement
b. a category scale
d. discriminant validity

Q16. What type of scale is used when a football player has the number 12 on the back of his jersey during a game?
a. Ordinal scale
c. Interval scale
b. Nominal scale
d. Ratio scale

Q17. The "split-half method" measures:
a. face validity
c. construct validity
b. content validity
d. reliability

Q18. What type of error occurs when something that is true in the population is rejected based on the sample data?
a. Type I
c. Type gamma
b. Type alpha
d. Type II

Q19. The introductory section of a research report should aim to:
a. Identify the specific focus of the study.
b. Provide a rationale for the dissertation, or article.
c. Grab the reader's attention.
d. All of the above.

Q20. On a measure of "brand loyalty," when the researcher asks herself: "Do these questions really measure brand loyalty?", what type of validity is being considered?
a. Convergent validity
c. Face validity
b. Discriminant validity
d. Sensitivity

MID-WESTERN UNIVERSITY
EXAMINATIONS MANAGEMENT OFFICE
FINAL EXAMINATION: 2019
MASTER OF BUSINESS ADMINISTRATION (MBA)
SEMESTER - I

| Subject: Research Methodology | Course Code: MG |
| :--- | ---: |
| Full Marks: 100 | Time: 4:00 |
| You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks. |  |
| SECTION B: SHORT ANSWER QUESTIONS (5X6 = 30 MARKS) |  |

Answer any FIVE questions:
Q1. Differentiate between deductive and inductive method of inquiry.
Q2. What is experimental design? Differentiate between lab and field experiment.
Q3. Why do we study sample instead of studying whole population? Write the major reasons.
Q4. What is reliability? Explain its major types.
Q5. What are the major factors that affect the choice between primary and secondary data?
Q6. Explain major purpose of using both descriptive and inferential statistics in most of the fundamental (basic) research.
Q7. Explain major characteristics of a good research report.

## SECTION C: LONG ANSWER QUESTIONS (2X15 = 30 MARKS)

Answer any TWO questions:
Q8. What is level of measurement? Critically analyze its type with suitable example.
Q9. Enumerate the different methods of data collection in business research and critically examine interviews introduce more bias than does the use of survey questionnaire.
(7.5+7.5)

Q10. You have received a business research report done by a consultant for your firm, a life insurance company. The study is a survey of customer satisfaction based on a sample of 600 . You are asked to comment on its quality. What aspects of research process you highlight on your comments?


SECTION D: CASE STUDY (20 MARKS)
Q11. Read a case given below and answer the following questions:
During her degree placement Sam Jones spent a year working in the Purchasing Services department of a local acute hospital National Health Service (NHS) Trust. During her time in the organisation she saw at first hand the pressures faced by the organisation as it strove to deliver the vision of The NHS Plan (Department of Health, 2000) of a health service that provided timely, high-quality, value-for-money and patient-centred care. Specifically, she witnessed the changes being introduced in relation to supply chain policy and practice as the Purchasing Services department responded to the challenge of delivering quality products and services that met the needs of the end patient and other service users. Embarking on her research project Sam decided to focus on the topic of measuring service quality in health care supply chains. During the placement the Head of Purchasing Services had expressed an interest in the topic as being both important and timely and had offered to assist in facilitating the collecting of data. In addition, an initial review of the literature suggested that there was scope to make a worthwhile contribution to knowledge by researching the topic.
Having completed a review of the literature on supply chain management and service quality, Sam established an overarching aim of her research project, which was to measure and compare perceptions of service quality in health care supply chains. Through her reading of the literature and having undertaken some initial exploratory interviews with Purchasing Services' staff she had developed the following objectives for the research:

- to establish how service quality is measured in health care supply chains;
- to investigate the factors that influence perceptions of service quality of different people/groups within health care supply chain chains;


## Questions:

a) What research design(s) is appropriate in in this research? Justify.
b) Does Sam need to develop hypothesis for the study? If yes, mention some of the hypothesis relevant for the study?
c) What sampling and data collection techniques are most relevant in this study? Explain.
d) Provide appropriate way of analyzing the data so collected.

# MID-WESTERN UNIVERSITY <br> EXAMINATIONS MANAGEMENT OFFICE <br> FINAL EXAMINATION: 2019 <br> MASTER OF BUSINESS ADMINISTRATION (MBA) <br> SEMESTER - I 

Subject: Quantitative Approach to Management
Course Code: MGT 516
Full Marks: 100
Time: 4:00 Hours
You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION B: SHORT ANSWER QUESTIONS (5X6 = 30 MARKS)

Answer any FIVE questions:
Q1. A) Provide axiomatic definition of probability. Elucidate, with example, the concept of mutually exclusive, dependent and independent events. $(1+1+1+1)$
B) Ramesh and Suresh are asked to solve the problem. The probability that the Ramesh solves the problem is $2 / 3$ and that of Suresh solves is $3 / 4$. Find the probability that:
a. Both can solve the problem.
b. Ramesh solves but Ramesh cannot.

Q2. A) A working committee of 4 members has to form from among 6 managers 4 technicians, 3 supervisors and 2 trainers.
a. What is the probability that the committee has at least one technician?
b. What is the probability that the committee has at most 2 managers?
B) A production process produces light bulbs are $10 \%$ defectives. Each item is inspected before being exported but the inspector will incorrectly classify an item $10 \%$ of the time (only items classified as good are shipped). What is the probability of items shipped being defective?
Q3. A) Point out the conditions of poisson distribution.
There are $20 \%$ chances for a worker of an industry to suffer from an occupational disease. Find the probability that:
a. Only one worker is found suffering from the disease.
b. None is suffering from the disease.
B) The personal department of company has records which show the following of its 200 engineers:

| Age | Bachelors degree only | Masters degree | Total |
| :--- | :--- | :--- | :--- |
| Under 30 | 90 | 10 | 100 |
| $30-40$ | 20 | 30 | 50 |
| Over 40 | 40 | 10 | 50 |
| Total | 150 | 50 | 200 |

If one engineer is selected at random from the company, find:
a. The probability that he has only a bachelor's degree.
b. The probability that he has the Master's degree given that he is over 40 .
c. The probability he is under 30 , given that he has only a bachelor's degree.

Q4. Differentiate between:
a. Nominal and Ordinal scale
b. Stratified and cluster sampling
c. Correlation and regression

Q5. Income of a group of 1000 persons was found to be normally distributed with mean Rs. 520 and standard deviation Rs. 60. Find;
a. The highest income of poorest $10 \%$ of the persons.
b. Lowest income of richest $20 \%$ of the persons.

Q6. A) In a recent study of 35 ninth grade students, the mean number of hours per week that they played video games was 16.6. The standard deviation of the population was 2.8 .
a. Find the best point estimate of the population mean.
b. Find the $95 \%$ confidence interval of the mean of the time playing video games.
B) A health care professional wishes to estimate the birth weights of infants. How large a sample must be obtained if she desires to be $90 \%$ confident that the true mean is within 2 ounces of the sample mean? Assume population standard deviation is eight ounces.

Q7. A) Do the following data provide evidence of the effectiveness of inoculation in preventing tuberculosis? (Use tabulated value 3.841)

|  | Attacked | Not attacked | Total |
| :--- | :--- | :--- | :--- |
| Inoculated | 20 | 300 | 320 |
| Not inoculated | 80 | 600 | 680 |
| Toal | 100 | 900 | 1000 |

B) Compute the partial correlation coefficient from the following information by eliminating the effect of the third variable $\mathrm{X}_{3}$ :
The coefficient of correlation between $X_{1}$ and $X_{2}=0.80$
The coefficient of correlation between $X_{1}$ and $X_{3}=0.65$
The coefficient of correlation between $X_{2}$ and $X_{3}=0.70$

## SECTION C: LONG ANSWER QUESTIONS (2X15 = $\mathbf{3 0}$ MARKS)

Answer any TWO questions:
Q8. A) The number of grams of fiber per serving for a random sample of three different kinds of foods is listed. Is there sufficient evidence at the 0.05 level of significance to conclude that there is a difference in mean fiber content among breakfast cereals, fruits, and vegetables?

| Breakfast cereals | 3 | 4 | 6 | 4 | 10 | 5 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Fruits | 5 | 2 | 4 | 2 | 4 | 5 |
| Vegetables | 10 | 2 | 4 | 3 | 3 | 7 |

B) MBA students were selected by a big organization. They were given an I.Q. test immediately after selection and their scores out of 50 were noted. A two month training as arrange for them and on completion I.Q. test was given again and score recorded.

| Students | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Score (before) | 31 | 35 | 38 | 25 | 40 | 45 | 40 | 38 | 18 | 30 |
| Score (after) | 32 | 30 | 32 | 37 | 38 | 37 | 42 | 40 | 27 | 35 |

On the basis of these results, can it be concluded that the training has benefited the students?
Q9. A random sample of 16 values from a normal population has a mean of 41.5 inches and the sum of square of deviations taken from the mean is 135 inches. Another sample of 20 values from an unknown population has a mean of 43.0 inches and sum of squares of deviations from their mean is 171 inches. Show that the two samples may be regarded as coming from the same normal population.
Q10. A) Manager of Primer TV claim that the average number of hours of television watched per week by women over age 55 is more than men over age 55 . To check his claim a researcher randomly select samples of 40 men and 40 women from a large retirement community and found on an average male watched TV 44.3 hours per week with SD 4.5 hours whereas. 40 women watched TV for 48.2 hours per week with SD 5.6 hours. At the 0.01 level of significance, can it be concluded that women watch more television per week than men?
B) In a random sample of 200 men, 130 said they used seat belts. In a random sample of 300 women, 63 said they used seat belts. Test the claim that men are more safety-conscious than women, at $\alpha=0.01$. Use the $P$ value method.

## SECTION D: CASE STUDY ( 20 MARKS)

Q11. Read a case given below and answer the following questions:
The research firm believes that the job satisfaction of employees in business firm is mainly due to working experience and income. This firm has assessed the satisfaction of five employees of the business firm and found the following information regarding satisfaction score, working experience and annual income.

| Job satisfaction | 10 | 5 | 10 | 4 | 8 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Experience in years | 16 | 13 | 21 | 10 | 13 |
| Annual income (Rs. 100000) | 3 | 6 | 4 | 5 | 3 |

a. Estimate the equation to predict the job satisfaction from experience and annual income. And interpret the meaning of slope coefficients.
b. Predict job satisfaction score of an employee who has spent 18 years on job and has annual income of Rs. 800000.
c. Compute the standard error of estimate.
d. Compute the coefficient of determination and comment on regression equation.

| Subject: Quantitative Approach to Management | Course Code: MGT 516 |
| :--- | ---: |
| Full Marks: 100 | Time: 4:00 Hours |

## SECTION A: MULTIPLE CHOICE QUESTIONS $(\mathbf{1} \mathbf{~} 20=20$ MARKS)/ (TIME: 20 MINUTES)

Tick the best answers.
Q1. If two events are independent, then;
a. They must be mutually exclusive.
b. The sum of their probabilities must be equal to one.
c. Their intersection must be zero.
d. None of these alternatives is correct.

Q2. Two events are mutually exclusive and each has a non zero probability. If event A is known to occur, the probability of the occurrence of event $B$ is:
a. One
c. Any positive value
b. Zero
d. Any value between zero to one

Q3. A numerical description of the outcome of an experiment is called:
a. Descriptive statistics
c. Variance
b. Probability function
d. Random variable

Q4. In textile industry, a manufacturer is interested in the number of blemishes or flaws occurring in each 100 feet of material. The probability description that has the greatest chance of applying to his situation is the:
a. Normal distribution
c. Poisson distribution
b. Binomial distribution
d. Uniform distribution

Q5. Which of the following is not the property of a binomial distribution?
a. The experience consists of a sequence of $n$ identical trials
b. Each outcome can be referred to as a success or a failure
c. The probabilities of the two outcome can change from one trial to the next
d. The trials are independent

Q6. The level of significance is the:
a. maximum allowable properties of Type II error
b. maximum allowable properties of Type I error
c. Same as the confidence coefficient
d. Same as the p - value

Q7. An important application of the chi square distribution is
a. Making inferences about a single population variance
b. Testing for goodness of fit
c. Testing for the independence of two variables
d. All of these alternatives are correct

Q8. For a continuous random variable $x$, the probability density function $f(x)$ represents:
a. The probability at a given value of $x$
b. The area under the curve to the right of $x$
c. The area under the curve at $x$
d. The height of the function at $x$

Q9. The convenience sampling is an example of:
a. Probabilistic sampling
c. Stratified sampling
b. Non probabilistic sampling
d. Cluster sampling

Q10. In hypothesis testing, the hypothesis tentatively assumed to be true is:
a. The alternative hypothesis
c. The null hypothesis
b. Either null or the alternative
d. None of these alternatives is correct

Q11. In point estimation:
a. Data from the population is used to estimate the population parameter.
b. Data from the sample is used to estimate the population parameter.
c. Data from the sample is used to estimate the sample statistic.
d. The mean of the population equals the mean of the sample.

Q12. A variable that takes on the value of 0 to 1 and is used to incorporate the effect of qualitative variables in a regression model is called:
a. An interaction
c. A constant variable
b. A dummy variable
d. None of these alternative is correct

Q13. A property of a point estimator that occurs whenever larger sample sizes tend to provide point estimate closer to the population parameter is known as:
a. Efficiency
c. Unbiased sampling
b. Consistency
d. Relative estimation

Q14. If a hypothesis is rejected at the $5 \%$ level of significance, it is ..
a. rejected at the $1 \%$ level
b. accepted at the $1 \%$ level
c. never tested at the $1 \%$ level
d. rejected or not rejected at the $1 \%$ level

Q15. Which of the following does not need to be known in order to compute the p - value?
a. Knowledge of whenever the test is one tailed or two tailed
b. The value of the test statistic
c. The level of significance
d. None of these alternative is correct

Q16. The ANOVA procedure is a statistical approach for determining whether or not:
a. The means of two samples are equal.
b. The means of two or more samples are equal.
c. The mean of more than two samples are equal.
d. The means of two or more populations are equal.

Q17. The range of the partial correlation coefficient is between:
a. 0 tol
c. 0 to 1
b. - infinity to + infinity
d. -1 to 1

Q18. A random sample of 121 bottles of cologne showed an average content of 4 ounces. It is known that the standard deviation of the contents (i.e. of the population) is 0.22 ounces. In this problem the 0.22 is:
a. A parameter
b. The standard error of the mean
c. A statistic
d. The average content of colognes in the long run

Q19. Whenever using the $t$ distribution in estimation, we must assume that:
a. The sample size is at least 30
b. The sampling distribution is approximately normal
c. The population is approximately normal
d. The finite population correction factor is necessary.

Q20. In how many ways can a committee of 4 persons be chosen out of 8 ?
a. 1680
b. 70
c. 35
d. 56

