

HALL TICKET NO:

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**Ph.D. Management Studies**  
**Entrance Examination – 2017**  
**(80 Marks)**

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**INSTRUCTIONS:**

1. Write your Hall Ticket Number in the OMR Answer sheet given to you. Also write the Hall Ticket Number in the space provided above.
2. The question paper booklet consists of Part A and B which carries 80 questions. Each question carries one (1) mark.
3. The questions contain in Part A (Q. No. 1 to 40) cover Research Methodology, Logical, Analytical, verbal reasoning, Data analysis and interpretation. Part B (Q.No. 41 to 80) contains questions in General Management, Marketing, Finance, Human Resource Management, Organizational Behavior, Operations Research and Operations Management.
4. **There is negative marking for part A only. Each wrong Answer carries -0.33 marks.**
5. Answers are to be marked on the OMR answer sheet following the instructions provided there upon.
6. Hand over the OMR answer sheet to the invigilator before leaving the examination hall.
7. No additional sheets will be provided. Rough work can be done in the question paper itself or in the space provided at the end of the booklet.
8. Calculators, mobile phones and electronic gadgets are not allowed.

## PART-A

1. The expectation of a random variable  $X$  is defined as:
  - (A)  $p_1X_1 + p_2X_2 + \dots + p_kX_k$
  - (B)  $p_1X_1 + p_1X_2 + \dots + p_1X_k$
  - (C)  $p_1X_2 + p_2X_2 + \dots + p_kX_2$
  - (D) None of the above
2. The measure of variation that is least affected by extreme observations is:
  - (A) Range
  - (B) Mean Deviation
  - (C) Standard Deviation
  - (D) All the above
3. Which of the following is not correct?
  - (A) Standard deviation can never be negative
  - (B) Variance of a random variable is always non-negative
  - (C) If mean of a Poisson distribution is 5, then the standard deviation is 3
  - (D) If mean and standard deviation for a particular normal distribution are known, then we can compute probabilities from standard normal table
4. Area under standard normal curve within range, mean  $\pm 2$  standard deviation, is about:
  - (A) 99.5%
  - (B) 99.7%
  - (C) 95.5%
  - (D) 68%
5. How do you differentiate z-statistics from t-statistics?
  - (A) They are same
  - (B) Z-statistics can be calculated with known population parameters but t-statistics can be calculated with sample parameters
  - (C) t-statistics can be calculated with known population parameters but z-statistics can be calculated with sample parameters
  - (D) Both t- and Z- statistics can be calculated with known sample/population parameters
6. How do you test auto-correlation in a multivariate regression analysis?
  - (A) Durbin Watson statistics
  - (B) McNemar's chi square statistics
  - (C) Friedman test statistics
  - (D) All the above
7. Which one of the following is not a non-parametric test ?
  - (A) t-test
  - (B) Sign test
  - (C) Chi-square test
  - (D) Run test

8. With which one of the following techniques communality is associated ?  
(A) Univariate analysis  
(B) Factor analysis  
(C) Case studies  
(D) SWOT analysis
9. The variable which impacts the relationship between an independent variable and a dependent variable is known as  
(A) Antecedent variable  
(B) Precedent variable  
(C) Predictor variable  
(D) Control variable
10. The process not needed in Experimental Research is  
(A) Observation  
(B) Manipulation  
(C) Controlling  
(D) Content Analysis
11. Ex Post Facto research means  
(A) The research is carried out after the incident  
(B) The research is carried out prior to the incident  
(C) The research is carried out along with the happening of an incident.  
(D) The research is carried out keeping in mind the possibilities of an incident.
12. Which one of the following is an indication of the quality of a research journal?  
(A) Impact factor  
(B) h-index  
(C) g-index  
(D) i10-index
13. Which of the following sampling methods is based on probability?  
(A) Convenience sampling  
(B) Quota sampling  
(C) Judgement sampling  
(D) Stratified sampling
14. Arrange the following steps of research in correct sequence :  
1. Identification of research problem  
2. Listing of research objectives  
3. Collection of data  
4. Methodology  
5. Data analysis  
6. Results and discussion  
(A) 1 – 2 – 3 – 4 – 5 – 6  
(B) 1 – 2 – 4 – 3 – 5 – 6  
(C) 2 – 1 – 3 – 4 – 5 – 6  
(D) 2 – 1 – 4 – 3 – 5 – 6

15. The population information is called parameter while the corresponding sample information is known as  
(A) Evidence  
(B) Inference  
(C) Measure  
(D) Statistic
16. "A diagram speaks more than 1000 words." The statement means that the teacher should  
(A) use diagrams in teaching.  
(B) speak more and more in the class.  
(C) use teaching aids in the class.  
(D) not speak too much in the class.
17. The \_\_\_\_\_ approach relies on direct observation and experimentation in the acquisition of new knowledge  
(A) Empirical  
(B) Deductive  
(C) Inductive  
(D) Logical
18. Concept is of two types  
(A) Abstract and Coherent  
(B) Concrete and Coherent  
(C) Abstract and concrete  
(D) None of the above
19. In testing a Hypothesis the common errors are  
(A) Type A and B  
(B) Type I and II  
(C) Type X and Y  
(D) None of these
20. A Blue print of Research work is called  
(A) Research Problem  
(B) Research design  
(C) Research tools  
(D) Research methods
21. The missing number in the series : 0, 6, 24, 60, 120, ?, 336, is  
(A) 240  
(B) 220  
(C) 280  
(D) 210
22. The number of observations in a group is 40. The average of the first 10 members is 4.5 and the average of the remaining 30 members is 3.5. The average of the whole group is  
(A) 4  
(B)  $15/2$   
(C)  $15/4$   
(D) 6

23. Given that in a code language, '645' means 'day is warm'; '42' means 'warm spring' and '634' means 'spring is sunny'; which digit represents 'sunny' ?  
 (A) 3  
 (B) 2  
 (C) 4  
 (D) 5
24. If the proposition "All men are not mortal" is true then which of the following inferences is correct ? Choose from the code given below :  
 1. "All men are mortal" is true.  
 2. "Some men are mortal" is false.  
 3. "No men are mortal" is doubtful.  
 4. "All men are mortal" is false.  
 Code :  
 (A) 1, 2 and 3  
 (B) 2, 3 and 4  
 (C) 1, 3 and 4  
 (D) 1 and 3
25. If Ram knows that  $y$  is an integer greater than 2 and less than 7 and Hari knows that  $y$  is an integer greater than 5 and less than 10, then they may correctly conclude that  
 (A)  $y$  can be exactly determined  
 (B)  $y$  may be either of two values  
 (C)  $y$  may be any of three values  
 (D) there is no value of  $y$  satisfying these conditions
26. Ananya and Krishna can speak and follow English. Bulbul can write and speak Hindi as Archana does. Archana talks with Ananya also in Bengali. Krishna can not follow Bengali. Bulbul talks with Ananya in Hindi. Who can speak and follow English, Hindi and Bengali ?  
 (A) Archana  
 (B) Bulbul  
 (C) Ananya  
 (D) Krishna

Following table provides details about the Foreign Tourist Arrivals (FTAs) in India from different regions of the world in different years. Study the table carefully and answer questions from 27 to 30 based on this table.

Region	Number of Foreign Tourist Arrivals		
	2007	2008	2009
Western Europe	1686083	1799525	1610086
North America	1007276	1027297	1024469
South Asia	982428	1051846	982633
South East Asia	303475	332925	348495
East Asia	352037	355230	318292
West Asia	171661	215542	201110
Total FTAs in India	5081504	5282603	5108579

27. Find out the region that contributed around 20 percent of the total foreign tourist arrivals in India in 2009.
- (A) Western Europe
  - (B) North America
  - (C) South Asia
  - (D) South East Asia
28. Which of the following regions has recorded the highest negative growth rate of foreign tourist arrivals in India in 2009?
- (A) Western Europe
  - (B) North America
  - (C) South Asia
  - (D) West Asia
29. Find out the region that has been showing declining trend in terms of share of foreign tourist arrivals in India in 2008 and 2009.
- (A) Western Europe
  - (B) South East Asia
  - (C) East Asia
  - (D) West Asia
30. Identify the region that has shown hyper growth rate of foreign tourist arrivals than the growth rate of the total FTAs in India in 2008.
- (A) Western Europe
  - (B) North America
  - (C) South Asia
  - (D) East Asia
31. A person has to buy both apples and mangoes. The cost of one apple is Rs. 7 whereas that of a mango is Rs. 5. If the person has Rs. 38, the number of apples he can buy is
- (A) 1
  - (B) 2
  - (C) 3
  - (D) 4
32. In a certain code GALIB is represented by HBMJC. TIGER will be represented by
- (A) UJHFS
  - (B) UHJSF
  - (C) JHUSF
  - (D) HUJSF
33. In a certain cricket tournament 45 matches were played. Each team played once against each of the other teams. The number of teams participated in the tournament is
- (A) 8
  - (B) 10
  - (C) 12
  - (D) 14

34. P is the father of R and S is the son of Q and T is the brother of P. If R is the sister of S, how is Q related to T ?  
(A) Wife  
(B) Sister-in-law  
(C) Brother-in-law  
(D) Daughter-in-law
35. Starting from point A, Ajit walks 14 metres towards west, he then turns to his right and walks 14 metres and then turns to his left and walks 10 metres. He again turns to his left and walks 14 metres and reaches to the point E. The shortest distance between A and E is  
(A) 38 meters  
(B) 42 meters  
(C) 52 meters  
(D) 24 meters

Directions for questions 36 to 40: In each of the following questions, there is a certain relationship between two given words on one side :: and one word is given on other side of : while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair bear. Choose the correct alternative

36. Pulp: Paper :: Hemp: ?  
(A) Yarn  
(B) Rope  
(C) Cotton  
(D) Silk
37. Influenza: Virus :: Typhoid: ?  
(A) Bacteria  
(B) Parasite  
(C) Protozoa  
(D) None of the above
38. Commodore: Navy :: Brigadier: ?  
(A) Captain  
(B) Airforce  
(C) Army  
(D) None of the above
39. Genuine: Authentic :: Mirage: ?  
(A) Illusion  
(B) Reflection  
(C) Image  
(D) None of the above
40. Car: Garage :: Aeroplane: ?  
(A) Port  
(B) Depot  
(C) Harbour  
(D) Hangar

## PART-B

41. If a firm is practicing \_\_\_\_\_, the firm is training and effectively, motivating its customer contact employees and all of the supporting service people to work as a team to provide customer satisfaction.
- (A) Cross Marketing
  - (B) Up Marketing
  - (C) Interactive Marketing
  - (D) Internal Marketing
42. \_\_\_\_\_ is the marketing and financial value associated with a brands strength in overall market.
- (A) Brand Extension
  - (B) Brand Loyalty
  - (C) Brand Equity
  - (D) None of these
43. \_\_\_\_\_ Marketing means serving a small market not served by competitors.
- (A) Relationship
  - (B) Niche
  - (C) Guerilla
  - (D) none of the above
44. The four unique elements to services include:
- (A) Independence, intangibility, inventory, and inception
  - (B) Independence, increase, inventory, and intangibility
  - (C) Intangibility, inconsistency, inseparability, and inventory
  - (D) Intangibility, independence, inseparability, and inventory
45. A consumer contest is an example of \_\_\_\_\_.
- (A) Personal selling
  - (B) Sales promotion
  - (C) Advertising
  - (D) Indirect selling
46. If the tasks of a receptionist was increased to provide a challenge, it is known as \_\_\_\_\_
- (A) Job Rotation
  - (B) Job Enlargement
  - (C) Job Enlargement
  - (D) Job Design
47. Vestibule training is a method of \_\_\_\_\_
- (A) Off the job training
  - (B) On the job training
  - (C) Perspective of training
  - (D) Evolution of training



48. One of the current trends in Compensation Management is \_\_\_\_\_
- (A) Broadbanding
  - (B) Executive remuneration
  - (C) Management remuneration
  - (D) Salary & Wage increases
49. Fiedler proposed the \_\_\_\_\_
- (A) Contingency model of leadership
  - (B) Path goal theory of leadership
  - (C) Group and exchange theory of leadership
  - (D) Autocratic – participative theory of leadership
50. Hiring someone outside the company to perform tasks that could be done internally is known as:
- (A) Outplacement.
  - (B) Contracting.
  - (C) Outsourcing.
  - (D) Employee leasing.
51. When employees receive a higher rate of pay for all of their work if production exceeds a standard level of output, they are working under which incentive plan?
- (A) Differential piece rate
  - (B) Standard piece rate
  - (C) Exception bonus rate
  - (D) Individual rate pay
52. The method of training used to train personnel to operate aircraft, spacecraft, and other highly technical and expensive equipment is the:
- (A) Simulation method
  - (B) Classroom method
  - (C) Vestibule method
  - (D) Apprenticeship method
53. Organizations are best described as:
- (A) Groups of buildings in which people are paid from the same budget.
  - (B) Groups of people who work interdependently toward some purpose
  - (C) Closed systems that operate without consideration of space, time, or people.
  - (D) Any entity that can exist without the need to acquire knowledge.
54. Organizational events are usually studied from which of these three common levels of analysis?
- (A) Team, global, and organizational
  - (B) Contingency, universal, and systematic
  - (C) Acquisition, sharing, and use.
  - (D) Team, individual, and organizational
55. All of these are part of the "Big Five" personality dimensions except
- (A) Locus of control.
  - (B) Agreeableness.
  - (C) Openness to experience.
  - (D) Emotional stability.

56. A manager uses the following equation to predict monthly receipts:  $Y_t = 40,000 + 150t$ .  
What is the forecast for July if  $t = 0$  in April of this year?  
(A) 40,450  
(B) 40,600  
(C) 42,100  
(D) 42,250
57. Assuming no safety stock, what is the re-order point (R) given an average daily demand of 50 units, a lead time of 10 days and 625 units on hand?  
(A) 550  
(B) 500  
(C) 715  
(D) 450
58. The advantages of standardization include: I. early freezing of the design. II. Fewer parts to deal with in inventory. III. Reduced training cost and time. IV. More routine purchasing.  
(A) I, II  
(B) I, IV  
(C) I, II, III  
(D) II, III, IV
59. A chase demand strategy should be followed when  
(A) Worker skill qualifications are high  
(B) Unemployment rates are low  
(C) Inventory costs are high  
(D) All of the above
60. Which of the following is an objective function for the information provided. A trader sells chairs and tables at Rs 230 and Rs 580 each respectively and he procures them at Rs 180 and Rs 480 respectively  
(A) Maximise  $Z = 230x_1 + 480x_2$   
(B) Minimise  $Z = 180x_1 + 580x_2$   
(C) Minimise  $Z = 230x_1 + 580x_2$   
(D) Maximise  $Z = 50x_1 + 100x_2$
61. Who propounded 'Theory Z'?  
(A) Douglas McGregor  
(B) Abraham Maslow  
(C) William Ouchi  
(D) M.P.Follet
62. A small group of employees in the same work area or doing similar type of work who voluntarily meet regularly for about an hour every week to identify, analyze and resolve work related problems to improve quality, productivity and the total performance of the organization. What is being referred to?  
(A) Quality Circus  
(B) Quality Control  
(C) Quality Commitment  
(D) Quality Circles

63. Who wrote the book titled "Seven Habits of Highly Effective People"?
- (A) Stephen Covey
  - (B) Peter Senge
  - (C) Stephen Robins
  - (D) Philip Covey
64. A lot of traditional 20th century sales theory and training was influenced by the 1937 book 'How to Win Friends and Influence People'; who wrote it?
- (A) Dale Carnegie.
  - (B) Tom Peter
  - (C) Peter Drucker
  - (D) Howard Gardner
65. Brainstorming is a technique among the members of a group to generate as many ideas possible without assessing their value.
- (A) True
  - (B) False
  - (C) None
  - (D) Both
66. Which of the following organizations has a dual chain of command?
- (A) Matrix Organization
  - (B) Functional Organization
  - (C) Virtual Organization
  - (D) Cluster Organization
67. Competitive advantage based on the creation of opportunities using internal resources is characterized by which approach/view?
- (A) Positioning approach
  - (B) Outside-in approach
  - (C) Resource-based view
  - (D) The knowledge-management approach
68. The principal-agent problem is concerned with:
- (A) Procurement
  - (B) The separation of ownership from control in firms
  - (C) How to control a firm's distributors and dealers
  - (D) Corporate social responsibility
69. The "balanced scorecard" supplies top managers with a \_\_\_\_\_ view of the business.
- (A) Long-term financial
  - (B) Complex
  - (C) Routine
  - (D) Comprehensive

70. A joint venture can be defined as:
- (A) Two firms collaborate together on a specific project
  - (B) One firm licenses its intellectual property to another firm
  - (C) Two firms merge together
  - (D) Two firms come together to form a third, legally separate firm
71. Which of the following are NOT likely to be sources of relatedness between businesses?
- (A) Similarities in size
  - (B) Operating in industries with similar success factors
  - (C) Similarities in production technologies
  - (D) Selling to customers with similar demographic characteristics
72. The sustainable growth rate (SGR) can be expressed as:
- (A) The percentage change in retained earnings assuming a steady state model where the retention rate is held constant.
  - (B) Being positively related to the firm's target return on equity and negatively related to its target retention rate.
  - (C) The maximum annual percentage increase in sales that can be achieved based on target operating, debt, and dividend-payout ratios.
  - (D) Being negatively related to the firm's target return on equity and positively related to its retention rate.
73. All of the following influence capital budgeting cash flows except \_\_\_\_\_.
- (A) Choice of depreciation method for tax purposes
  - (B) Economic length of the project
  - (C) Projected sales (revenues) for the project
  - (D) Sunk costs of the project
74. The probability in subsequent periods that is conditioned on what has occurred earlier is referred to as the \_\_\_\_\_.
- (A) Initial probability
  - (B) Conditional probability
  - (C) Joint probability
  - (D) None of the above answers are true
75. Modigliani and Miller argue that the dividend decision \_\_\_\_\_.
- (A) Is irrelevant as the value of the firm is based on the earning power of its assets
  - (B) Is relevant as the value of the firm is not based just on the earning power of its assets
  - (C) Is irrelevant as dividends represent cash leaving the firm to shareholders, who own the firm anyway
  - (D) Is relevant as cash outflow always influences other firm decisions
76. Which of the following statements about arbitrage is correct?
- (A) A risk averter will arbitrage because profits can be made with no risk and no investment.
  - (B) Arbitrage opportunities continue to exist in equilibrium.
  - (C) A risk averter will never arbitrage because of the risk involved.
  - (D) A risk seeker loves to arbitrage because he or she is willing to pay a premium to buy risky assets.

77. Which of the following terms describes strategies designed to ensure that the market values of assets always exceed the market values of liabilities by a specified amount?
- (A) Contingent immunization.
  - (B) Income immunization.
  - (C) Duration matching immunization.
  - (D) Price immunization.
78. Which of the following is not correct?
- (A) The graphical approach to solution of lpp's can't handle problems with more than three variables
  - (B) A feasible solution to an lpp is one that satisfies at least one of the constraints of the problem
  - (C) An optimum solution to an lpp is a feasible solution which optimizes the objective function
  - (D) The feasible region is also termed as the solution space
79. Using graphical method, the optimum solution of the LPP of maximising  $z = 10x + 15y$  subject to constraints  $2x + y \leq 26$ ,  $x + 2y \leq 28$  and  $y - x \leq 5$  and  $x, y \geq 0$  is obtained as:
- (A)  $x = 8$  and  $y = 10$
  - (B)  $x = 6$  and  $y = 1$
  - (C)  $x = 6$  and  $y = 10$
  - (D)  $x = 8$  and  $y = 8$
80. A necessary and sufficient condition for a basic feasible solution to a minimization LPP to be an optimum is that (for all j):
- (A)  $z_j - c_j \geq 0$
  - (B)  $z_j - c_j \leq 0$
  - (C)  $z_j - c_j = 0$
  - (D)  $z_j - c_j > 0$  or  $z_j - c_j < 0$

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