

HALL TICKET NO:

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Ph.D. in Management Studies

Entrance Examination - 2019

(70 Marks)

Instruction to candidates:

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 Part B which carries 70 questions. Each question carries one (1) mark. There is negative marking for Part A only. Each wrong answer carries 0.33 marks. There is no negative mark for part B.
3. Answers are to be marked on the OMR answer sheet following the instructions provided thereupon.
4. Hand over OMR answer sheet to the invigilator before leaving the examination hall.
5. 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.
6. Calculators, mobile phones and electronic gadgets are not allowed.

V.88

Part-A

1. The variables measured in Meters/ Inches in terms of height and length are classified as
 - A. Continuous variables
 - B. Dichotomous variables
 - C. Ordinal variables
 - D. Categorical variables
2. Which of the following sampling methods is a probability method?
 - A. Quota sampling
 - B. Judgement sampling
 - C. Simple Random sampling
 - D. Convenience sampling
3. The curve of cumulative frequency is also known as
 - A. Ogive
 - B. Spiral
 - C. Neutral
 - D. Parabola
4. Monthly income of Ravi is Rs.60, 000. His expenditure on monthly groceries is Rs.10, 000. If this information is presented in a Pie chart, what is the corresponding angle for monthly groceries?
 - A. 20°
 - B. 30°
 - C. 45°
 - D. 60°
5. In any distribution, which of the following equation is true?
 - A. Arithmetic Mean \leq Geometric Mean \leq Harmonic Mean
 - B. Arithmetic Mean = Geometric Mean + Harmonic Mean
 - C. Arithmetic Mean \geq Geometric Mean \geq Harmonic Mean
 - D. Arithmetic Mean + Geometric Mean = Harmonic Mean

6. What is the standard deviation of 2, 3, 4, 5 and 6?
- A. 1.1
 - B. 1.4
 - C. 1.2
 - D. 1.5
7. A box contains 20 electric bulbs, out of which 4 are defective. Two bulbs are chosen at random from this box. The probability that those two bulbs are defective is.....
- A. 0.337
 - B. 0.345
 - C. 0.357
 - D. 0.383
8. Which of the following is a small sample test?
- A. Z test
 - B. F test
 - C. t test
 - D. Chi- Square test
9. The null hypothesis usually represents:
- A. The theory the researcher would like to prove.
 - B. The preconceived ideas of the researcher
 - C. The perceptions of the sample
 - D. The status quo
10. The demand for a product for the last six years has been 15, 15, 17, 18, 20, and 19. A manager wants to predict the demand for this time series using the following simple linear trend equation: $Y = 12.5 + 2.5X$. What is the percentage error for the 5th year?
- A. -10%
 - B. +30%
 - C. +20%
 - D. -25%
11. Interviewing all members of a given population is called:
- A. Sample
 - B. Random study
 - C. Census
 - D. Audit

12. Which of the following is true?
- A. Sample size increases as standard deviation decreases.
 - B. Sample size increases as standard deviation increases.
 - C. Sampling error increases as sample size increases.
 - D. Sample size decreases as population size increases.
13. The research that aims at immediate application is
- A. Action research
 - B. Empirical research
 - C. Conceptual research
 - D. Fundamental research
14. A working hypothesis is
- A. A proven hypothesis for an argument.
 - B. Not required to be tested.
 - C. A provisionally accepted hypothesis for further research.
 - D. A scientific theory.
15. Identify the correct sequence of research steps:
- A. Selection of topic, review of literature, data collection, interpretation of findings
 - B. Review of literature, selection of topic, data collection, and interpretation of findings
 - C. Selection of topic, data collection, review of literature, interpretation of findings
 - D. Selection of topic, review of literature, interpretation of findings, data collection
16. What is a Research Design?
- A. A way of conducting research that is not grounded in theory.
 - B. The choice between using qualitative or quantitative methods.
 - C. The style in which you present your research findings e.g. a graph.
 - D. A framework for every stage of the collection and analysis of data.
17. A deductive theory is one that:
- A. Allows theory to emerge out of the data
 - B. Involves testing an explicitly defined hypothesis
 - C. Allows for findings to feed back into the stock of knowledge
 - D. Uses qualitative methods whenever possible

18. A systematic literature review is:

- A. One which starts in your own library, then goes to on-line databases and, finally, to the internet
- B. A replicable, scientific and transparent process
- C. One which gives equal attention to the principal contributors to the area
- D. A responsible, professional process of time-management for research

19. Why is it important that personal data about research participants are kept within secure, confidential records?

- A. So that the participants cannot find out what has been written about them
- B. So that individuals, places or organizations cannot be harmed through identification or disclosure of personal information
- C. So that government officials, teachers and other people in authority can have easy access to the data
- D. To enable the researcher to track down individuals and find out more about their lives

For question numbers 20 to 24: Study the following information and answer the questions given below.

Six members of a family P, Q, R, S, T and U are Psychologist, Manager, Advocate, Jeweler, Doctor and Engineer but not in the same order.

(i)	Doctor is the grandfather of U and he is a psychologist
(ii)	Manager S is married to P
(iii)	R, who is a Jeweller, is married to Advocate
(iv)	Q is the mother of U and T
(v)	There are two married couples in the family

20. What is the profession of P?

- A. Doctor
- B. Engineer
- C. Advocate
- D. Manager

21. What is the profession of T?
- A. Manager
 - B. Psychologist
 - C. Engineer
 - D. Doctor
22. How is A related to T?
- A. Father
 - B. Grandfather
 - C. Wife
 - D. Grandmother
23. How many male members are there in the family?
- A. Two
 - B. Three
 - C. Four
 - D. Cannot be determined
24. Who are the two couples in the family?
- A. PS and RQ
 - B. PQ and RS
 - C. PT and ST
 - D. PR and QS
25. When a research study is not conducted according to the plan in the proposal for the research study, what kind of error has occurred?
- A. Random sampling error
 - B. Systematic error
 - C. Respondent error
 - D. Implementation error
26. The tendency for respondents to agree with most questions in a survey is known as:
- A. Auspices bias
 - B. Interviewer bias
 - C. Extremity bias
 - D. Acquiescence bias

27. When a researcher has made the decision to conduct a survey using a sample of the population, the FIRST step in the selection of the sample is to:

- A. Define the target population
- B. Determine the sample size
- C. Select the actual sampling units
- D. Select a sampling frame

28. Which of the following is a way for a researcher to equally distribute the effects of extraneous variables to all conditions in an experiment?

- A. Confounding
- B. Split sampling
- C. Repeated measures
- D. Randomization

29. When a researcher wants to study the members of the American Marketing Association and selects a sample from its membership list, the membership list is an example of a:

- A. Reverse directory
- B. Sampling frame
- C. Systematic sampling list
- D. Census

Answer questions 30 to 34 based on the information given below:

The following table shows the number of new employees added to different categories of employees in a company and also the number of employees from these categories who left the company every year since the foundation of the Company in 1995.

Year	Managers		Technicians		Operators		Accountants		Peons	
	New	Left	New	Left	New	Left	New	Left	New	Left
1995	760	-	1200	-	880	-	1160	-	820	-
1996	280	120	272	120	256	104	200	100	184	96
1997	179	92	240	128	240	120	224	104	152	88
1998	148	88	236	96	208	100	248	96	196	80
1999	160	72	256	100	192	112	272	88	224	120
2000	193	96	288	112	248	144	260	92	200	104

30. What is the difference between the total number of Technicians added to the Company and the total number of Accountants added to the Company during the years 1996 to 2000?

- A. 128
- B. 112
- C. 96
- D. 88

31. What was the total number of Peons working in the Company in the year 1999?

- A. 1312
- B. 1192
- C. 1088
- D. 968

32. For which of the following categories the percentage increase in the number of employees working in the Company from 1995 to 2000 was the maximum?

- A. Managers
- B. Technicians
- C. Operators
- D. Accountants

33. What is the pooled average of the total number of employees of all categories in the year 1997?

- A. 1325
- B. 1195
- C. 1265
- D. 1235

34. During the period between 1995 and 2000, the total number of Operators who left the Company is what percent of total number of Operators who joined the Company?

- A. 19%
- B. 21%
- C. 27%
- D. 29%

35. Which of the following bagged the AIMA Managing India Award 2019 for outstanding PSU of the year?

- A. Indian Oil Corporation
- B. Hindustan Unilever Ltd
- C. Coca-Cola India
- D. Mahindra & Mahindra Ltd

Part-B

36. In macro environment, 'pressure groups' and 'government agencies' are part of
- A. The cultural environment
 - B. The demographic environment
 - C. The economic environment
 - D. The political environment
37. A company's microenvironment does not include
- A. The company
 - B. The marketing intermediaries
 - C. Demographic forces
 - D. The organization's suppliers
38. Strategic business unit with low market share and high market growth is considered as
- A. Cash Cows
 - B. Stars
 - C. Dogs
 - D. Question marks
39. Considering strategic planning, 'Organizations purpose' statement is known as
- A. Vision statement
 - B. Mission statement
 - C. Value proposition
 - D. Both a and b
40. Process of comparing own products or services to leading firms practices to improve performance and quality is called
- A. Strategic analysis
 - B. Corporate image analysis
 - C. Benchmarking
 - D. Customer value analysis
41. The number of subordinates a superior can effectively handle is called
- A. Organising people
 - B. Span of control
 - C. Direction Group
 - D. Coordination System

42. Recruitment is concerned with
- A. Selecting the right candidate for right job
 - B. Developing a pool of job candidates
 - C. Getting applications from wide range candidates
 - D. None of the above
43. Benefits provided for temporary and permanent disability disfigurement, medical expenses and medical rehabilitation is referred to as
- A. Fringe benefits
 - B. Monetary incentives
 - C. Workers' compensation
 - D. None of the above
44. Today's organizations are working on the principle of
- A. Production-orientation
 - B. Product-orientation
 - C. Selling-orientation
 - D. Consumer-orientation
45. Which is the world's first hospital on a train?
- A. Gatiman Express
 - B. Jyoti Express
 - C. Lifeline Express
 - D. Red Cross Express
46. What is the purpose of the Food and Drug Administration (FDA)?
- A. To create rules to which no one can adhere and to make good companies jump through a lot of hoops
 - B. To prevent the production of harmful drugs, and to protect consumers against anti-competitive behaviour and misleading claims
 - C. To ensure drug safety and efficacy and to prevent misleading product claims and illicit inducements
 - D. To regulate the distribution and use of narcotics and other controlled substances

47. What term has been used for medical professionals assisting patients seeking treatment under the Ayushman Bharat-National Health Protection Mission (AB-NHPM)?

- A. Ayushman Saathi
- B. Ayushman Sahayak
- C. Ayushman Sahkari
- D. Ayushman Mitra

48. Worldwide, what is the second leading cause of death due to an infectious disease?

- A. HIV/AIDS
- B. Tuberculosis
- C. Bacterial meningitis
- D. Influenza

49. Which of the following ties up with Amazon for Ayurveda Marketplace?

- A. Dabur India
- B. Emami
- C. Pathanjali
- D. Himalaya

50. If a plant operates on N_d (no. of working days), h (working hours/day), N_m (no. of machines) and b (unavailability of machines due to breakdowns), then what is the total capacity available at the plant?

- A. $N_d \times h \times N_m / (1 - b\%)$
- B. $N_d \times h \times N_m \times (1 - b\%)$
- C. $N_d \times h \times N_m \times (b\%)$
- D. $N_d \times h / [N_m \times (b\%)]$

51. PERT stands for:

- A. Perfect evaluation and review technique
- B. Project evaluation and renew technique
- C. Project evaluation and review technique
- D. Perfect evaluation and renew technique

52. If for a project NT (normal duration of the activity), CT (shortest duration of the activity), NC (normal cost of the activity) and CC (crash cost of the activity) then what is "crash cost per unit time"?:

- A. $(CC + NC)/(NT - CT)$
- B. $(CC - NC)/(NT + CT)$
- C. $(CC - NC)/(NT - CT)$
- D. $(CC + NC)/(NT + CT)$

53. In M/M/1/∞/FIFO the probability that exactly "n" customers are in the queuing system under steady state is:

- A. $P_n = (1 - \rho)^n * \rho^n$
- B. $P_n = (1 - \rho) * \rho^n$
- C. $P_n = (1 - \rho)^n * \rho^n$
- D. $P_n = (1 - \rho) * n - \rho * n$

54. Smaller batch sizes are facilitated by all the following except

- A. Setup time reduction
- B. Changes in plant layout
- C. JIT policies
- D. Changeover time increases

55. Which of the following consist(s) of two or more computer-controlled machines or robots linked by automated handling devices such as transfer machines, conveyors and transport systems?:

- A. Computer-aided design/computer-aided engineering (CAD/CAE)
- B. Computer-aided manufacturing (CAM)
- C. Enterprise resource planning (ERP)
- D. Flexible manufacturing systems (FMS)

56. You have just been asked to oversee 100 people on a two-year project, to develop a new MRI machine similar to a current product, which will have twice the effectiveness and cost less to manufacture. You are uncertain about the time required to complete many of the activities. Which project management technique should you use?

- A. CPM with a single time estimate
- B. MRP
- C. CPM with three time estimates
- D. GANTT

57. An assembly line consists of 5 tasks with times of 3, 7, 5, 4, and 8 minutes. The cycle time for the line is 9 minutes. The proposed layout has 4 workstations. What is the efficiency of this layout?

- A. 100%
- B. 75%
- C. 27%
- D. 36%

58. An iso-profit line represents

- A. An infinite number of solutions all of which yield the same profit
- B. An infinite number of solution all of which yield the same cost
- C. An infinite number of optimal solutions
- D. A boundary of the feasible region

59. A lawnmower assembly plant uses a variety of nuts, bolts, screws, and other fasteners in their operation. Their supplier delivers these items directly to the point of use on the assembly line and ensures that there are always sufficient quantities of fasteners to maintain the production schedule. This is an example of

- A. Single stage control of replenishment.
- B. Vendor-managed inventory.
- C. Postponement
- D. Procurement

60. The purpose of financial markets is to:

- A. Increase the price of common stocks.
- B. Lower the yield on bonds.
- C. Allocate savings efficiently.
- D. Control inflation.

61. You are considering investing in a zero-coupon bond that sells for \$250. At maturity in 16 years it will be redeemed for \$1,000. What approximate annual rate of growth does this represent?

- A. 8 percent.
- B. 9 percent.
- C. 12 percent.
- D. 25 percent.

62. If the intrinsic value of a stock is greater than its market value, which of the following is a reasonable conclusion?
- A. The stock has a low level of risk.
 - B. The stock offers a high dividend payout ratio.
 - C. The market is undervaluing the stock.
 - D. The market is overvaluing the stock.
63. A Treasury bill yields 6%. Asset A is expected to yield either 12% (probability = 40%) or 2% (probability = 60%). Which of the following is true?
- A. A risk averter might invest in Asset A because investment choices are a matter of personal preference.
 - B. A risk averter would not invest in Asset A because it has a negative risk premium.
 - C. A risk averter might invest in Asset A because she is rewarded with a risk premium.
 - D. A risk averter would not invest in Asset A because she is not rewarded with a risk premium.
64. Arbitrage trading strategy implies that:
- A. Profits are made by trading low risk investments.
 - B. Arbitrage opportunities will continue to exist in equilibrium.
 - C. Profits are made by investing in riskless securities.
 - D. Profits are made with no risk and no investment.
65. A firm's degree of operating leverage (DOL) depends primarily upon its
- A. Sales variability.
 - B. Level of fixed operating costs.
 - C. Closeness to its operating break-even point.
 - D. Debt-to-equity ratio.
66. All of the following are true of stock splits EXCEPT:
- A. Market price per share is reduced after the split.
 - B. The number of outstanding shares is increased.
 - C. Retained earnings are changed.
 - D. Proportional ownership is unchanged.
67. Protective covenants are:
- A. To protect employees.
 - B. To protect the interests of the company.
 - C. To protect shareholders.
 - D. To protect bondholders.

68. Which of the following is second goal of PCA

- A. Data compression
- B. Statistical analysis
- C. Data dredging
- D. Data mentioned

69. Sensitivity is

- A. Predicted Sensitive events/ Total events
- B. Predicted FALSE events/ Total events
- C. Predicted TRUE events/ Total events
- D. None of the above

70. Blood types are an example of what kind of data?

- A Categorical nominal
- B Categorical ordinal
- C Quantitative interval
- D Quantitative ratio

...Ω...

Ph.D. in Management Studies, Entrance Examination – 2019, Answer key

1	A	26	D	51	C
2	C	27	A	52	C
3	A	28	D	53	B
4	D	29	B	54	D
5	C	30	D	55	D
6	B	31	B	56	C
7	-	32	A	57	B
8	C	33	B	58	A
9	D	34	D	59	B
10	D	35	A	60	C
11	C	36	D	61	B
12	B	37	C	62	C
13	A	38	D	63	D
14	C	39	B	64	D
15	A	40	C	65	B
16	D	41	B	66	C
17	B	42	B	67	D
18	B	43	C	68	A
19	B	44	D	69	C
20	A	45	C	70	A
21	C	46	C		
22	-	47	D		
23	D	48	A		
24	A	49	A		
25	B	50	B		

Note: Benefit will be given to all candidates for Q.No. 7 & 22