

**ENTRANCE EXAMINATIONS – 2019**  
**(Ph.D. Admissions - January 2020 Session)**

**Ph.D. Management Studies**

Hall Ticket No.	
-----------------	--

Time : 2 hours  
Max. Marks : 70

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 70 questions. Each question carries one (1) mark. There is negative marking for Part A only. Each wrong answer carries 0.33 marks.
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.

## PART-A

1. Which is the main objective of management research?
  - (A) To review the literature
  - (B) To summarize what is already known
  - (C) To discover new facts or to make fresh interpretation of known facts
  - (D) To get an academic degree
2. Sampling error decreases with the
  - (A) Decrease in sample size
  - (B) Increase in sample size
  - (C) Process of randomization
  - (D) Process of analysis
3. The principles of fundamental research are used in
  - (A) Action research
  - (B) Applied research
  - (C) Philosophical research
  - (D) Historical research
4. The sequential operations in scientific research are
  - (A) Co-variation, Elimination of Spurious Relations, Generalisation, Theorisation
  - (B) Generalisation, Co-variation, Theorisation, Elimination of Spurious Relations
  - (C) Theorisation, Generalisation, Elimination of Spurious Relations, Co-variation
  - (D) Elimination of Spurious Relations, Theorisation, Generalisation, Co-variation.
5. In sampling, the lottery method is used for
  - (A) Interpretation
  - (B) Theorisation
  - (C) Randomisation
  - (D) Conceptualisation

Direction (6-10): The table below embodies data on the per capita consumption, production, and exports of Sugar in India for the five years from 2010 to 2014. Answer questions 6 - 10 based on the data contained in the table.

Year-wise Production, Exports and Per Capita Consumption of Millet

Year	Production (in million kg)	Exports (in million kg)	Per Capita Consumption (in kg)
2010	186.5	114	36.25
2011	202.0	114	35.20
2012	238.0	130	38.70
2013	221.0	116	40.50
2014	215.0	088	42.00

Where, Per Capita Consumption = (Consumption in million kg) / (Population in million) and  
consumption (in million kg) = Production – Exports.

6. The Percentage increase in the consumption of sugar over the previous year was the highest in which year?
  - (A) 2011
  - (B) 2013
  - (C) 2012
  - (D) 2014

7. What is the population of the country in the year 2012 (in million)?  
(A) 2.79  
(B) 2.54  
(C) 2.32  
(D) 2.95
8. The ratio of exports to consumption in the given period was the highest in the year:  
(A) 2010  
(B) 2011  
(C) 2012  
(D) 2013
9. In which year the population of country was the highest?  
(A) 2011  
(B) 2012  
(C) 2013  
(D) 2014
10. What is the average consumption of rice (in million kg) over the years 2010 - 2014?  
(A) 105  
(B) 102.1  
(C) 100.1  
(D) 107
11. The simple interest accrued on an amount of Rs. 22,500 at the end of four years is Rs. 10,800. What would be the compound interest accrued on the same amount at the same rate of interest at the end of two years?  
(A) Rs. 16, 908  
(B) Rs. 28, 224  
(C) Rs. 5, 724  
(D) Rs. 8, 586
12. The mean marks obtained by a class of 40 students is 65. The mean marks of half of the students is found to be 45. The mean marks of the remaining students is  
(A) 85  
(B) 60  
(C) 70  
(D) 65
13. Anil is twice as old as Sunita. Three years ago, he was three times as old as Sunita. The present age of Anil is  
(A) 6 years  
(B) 8 years  
(C) 12 years  
(D) 16 years
14. A man pointing to a lady said, "The son of her only brother is the brother of my wife". The lady is related to the man as  
(A) Mother's sister  
(B) Sister of Father-in-law  
(C) Grand mother  
(D) Mother-in-law

15. In this series 6, 4, 1, 2, 2, 8, 7, 4, 2, 1, 5, 3, 8, 6, 2, 2, 7, 1, 4, 1, 3, 5, 8, 6, how many pairs of successive numbers have a difference of 2 each?

- (A) 8
- (B) 4
- (C) 6
- (D) 9

16. The world population growth rate at a certain reference year was 3.5%. Assuming exponential growth of population, after how many years, the population of the world would have increased by a factor 16?

- (A) ~ 80 years
- (B) ~ 50 years
- (C) ~ 150 years
- (D) ~ 350 years

17. In certain city the Taxi charges comprise of a fixed charge and the charge of the distance travelled. A person paid ₹ 156 for a journey of 16 km and another person paid ₹ 204 for the journey of 24 km. The amount paid by a passenger who has travelled 30 km is

- (A) 240
- (B) 236
- (C) 258
- (D) 266

18. In certain code HEALTH is written as KHDOWK. The code of NORTH will be

- (A) RQWUK
- (B) QRUWK
- (C) RWQUK
- (D) RWUKQ

19. Yadav, Arjun, Rajesh and Kamal play cricket. Rajesh and Kamal play tennis but do not play football. Yadav does not play Badminton but play golf. Arjun does not play tennis. Kamal sometimes plays Badminton. Who does play only cricket?

- (A) Yadav
- (B) Arjun
- (C) Rajesh
- (D) Kamal

20. An analogical argument is strengthened by

- (A) Making the claim bolder while its premises remain unchanged.
- (B) Remaining the claim unchanged while the evidence in its support is found to exhibit greater frailty.
- (C) Reducing the claim made on the basis of the premises affirmed.
- (D) None of the above.

21. If two propositions cannot both be false but may both be true, what is the relation between the two propositions?

- (A) Contrary
- (B) Sub-contrary
- (C) Semi-alternation
- (D) Contradiction

22. Identify the correct sequence of research steps:  
(A) Selection of topic, data collection, review of literature, interpretation of findings  
(B) Selection of topic, review of literature, data collection, interpretation of findings  
(C) Review of literature, selection of topic, data collection, interpretation of findings  
(D) Selection of topic, review of literature, interpretation of findings, data collection
23. Which of the following sampling methods is based on probability?  
(A) Convenience sampling  
(B) Quota sampling  
(C) Judgement sampling  
(D) Stratified sampling
24. Identify the incorrect statement:  
(A) A hypothesis is made on the basis of limited evidence as a starting point for further investigations.  
(B) A hypothesis is a basis for reasoning without any assumption of its truth.  
(C) Hypothesis is a proposed explanation for a phenomenon.  
(D) Scientific hypothesis is a scientific theory.
25. Let a means minus (-), b means multiplied by ( $\times$ ), C means divided by ( $\div$ ) and D means plus (+). The value of  $90 \text{ D } 9 \text{ a } 29 \text{ C } 10 \text{ b } 2$  is  
(A) 8  
(B) 10  
(C) 12  
(D) 14
26. Insert the missing number:  $16/32$ ,  $15/33$ ,  $17/31$ ,  $14/34$  ?  
(A)  $21/40$   
(B)  $13/30$   
(C)  $18/30$   
(D)  $17/36$
27. Monday falls on 20th March 1995. What was the day on 3rd November 1994?  
(A) Thursday  
(B) Friday  
(C) Wednesday  
(D) Saturday
28. Which of the following conclusions is logically valid based on statement given below?  
Statement: Most of the Indian states existed before independence.  
Conclusions:  
(I) Some Indian States existed before independence.  
(II) All Indian States did not exist before independence.  
(A) Only (I) is implied  
(B) Only (II) is implied  
(C) Both (I) and (II) are implied  
(D) Neither (I) nor (II) is implied
29. Assertion (A): Aerosols have potential for modifying climate  
Reason (R): Aerosols interact with both short waves and radiation  
(A) Both (A) and (R) are true, and (R) is the correct explanation of (A)  
(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)  
(C) (A) is true, but (R) is false  
(D) (A) is false, but (R) is true

30. The ozone layer restricts  
 (A) Visible light  
 (B) Infrared radiation  
 (C) X-rays and gamma rays  
 (D) Ultraviolet radiation
31. Which bank was earlier called the “Imperial Bank of India”?  
 (A) RBI  
 (B) SBI  
 (C) UBI  
 (D) PNB
32. Given an actual demand of 59, a previous forecast of 64, and an alpha of .3, what would the forecast for the next period be using simple exponential smoothing?  
 (A) 36.9  
 (B) 57.5  
 (C) 60.5  
 (D) 62.5
33. From the following two statements of Assertion (A) and Reasoning (R) suggest the correct code:  
 Assertion (A): The equilibrium price is decided at the level where the quantity demanded equals the quantity supplied.  
 Reasoning (R): At this level excess of demand and excess of supply both remain zero.  
 Code:  
 (A) (A) is correct but (R) is incorrect.  
 (B) (A) is incorrect but (R) is correct.  
 (C) (A) and (R) both are correct but (R) is not right explanation of (A).  
 (D) (A) and (R) both are correct and (R) is right explanation of (A).
34. Forecasts based on judgment and opinion don't include  
 (A) Executive opinion  
 (B) Salesperson opinion  
 (C) Second opinions  
 (D) Customer surveys
35. A quality criterion which can be assessed and either accepted or rejected is called a \_\_\_\_\_?  
 (A) Quality variable  
 (B) Quality component  
 (C) Quality characteristic  
 (D) Quality attribute

Directions (Q.36-40): Study the following information carefully and answer the given questions.

Representatives of eight different banks, viz A, B, C, D, E, F, G and H, are sitting around a circular table, facing the centre, but not necessarily in the same order. Each one of them is from a different bank, viz UCO Bank, Oriental Bank of Commerce, Bank of Maharashtra, Canara Bank, Syndicate Bank, Punjab National Bank, Bank of India and Dena Bank.

F sits second to the right of the representative of Canara Bank. The representative of Bank of India is an immediate neighbour of the representative of Canara Bank. Two person sit between the representative of Bank of India and B. C and E are immediate neighbours. Neither C nor E is an immediate neighbour of either B or the representative of Canara Bank. The representative

of Bank of Maharashtra sits second to the right of D. D is the representative of neither Canara Bank nor Bank of India. G and the representative of UCO Bank are immediate neighbours. B is not the representative of UCO Bank. Only one person sits between C and the representative of Oriental Bank of Commerce. H sits third to the left of the representative of Dena Bank. The representative of Punjab National Bank sits second to the left of the representative of Syndicate Bank.

36. Three of the following four are alike in a certain way based on the given arrangement and thus form a group. Which is the one that does not belong to that group?

- (A) H-UCO Bank
- (B) A-Canara Bank
- (C) D - Bank of Maharashtra
- (D) E - Syndicate Bank

37. Which of the following is true with respect to the given seating arrangement?

- (A) B is the representative of Bank of Maharashtra.
- (B) C sits second to the right of H.
- (C) The representative of Dena Bank sits on the immediate left of the representative of UCO Bank.
- (D) The representatives of Bank of Maharashtra and Syndicate Bank are immediate neighbours.

38. Who among the following sit exactly between B and the representative of Bank of India?

- (A) A and the representative of UCO Bank
- (B) F and G
- (C) H and the representative of Bank of Maharashtra
- (D) H and G

39. Who among the following is the representative of Oriental Bank of Commerce?

- (A) A
- (B) C
- (C) H
- (D) D

40. Who amongst the following sits second to the left of B?

- (A) C
- (B) H
- (C) The representative of Canara Bank
- (D) The representative of Punjab National Bank

**PART-B**

41. Attributes or benefits that consumers strongly associate with a brand, positively evaluate, and believe they could not find to the same extent with a competitive brand is known as:
- (A) Competitor points-of-parity
  - (B) Relational points-of-difference
  - (C) Correlational points-of-parity
  - (D) Points-of-difference
42. Which one of the following represents 'Penetrated market'?
- (A) The part of the qualified available market the company decides to pursue.
  - (B) The set of consumers who are buying the company's product.
  - (C) The set of consumers who have access to a particular offer.
  - (D) The set of consumers with a sufficient level of interest and access in a market offer.
43. What is "Block Chain" in the field of information technology?
- (A) Motherboard protection device.
  - (B) Protection of details of electronic transaction.
  - (C) Taking random snaps of electronic transactions helping in identifying fraud.
  - (D) Blocking continuous electronic transactions.
44. When the organizational requirements advocate tight cost control; frequent, detailed control reports; structured organization and responsibilities and incentives based on meeting strict quantitative targets then it is called:
- (A) Differentiation strategy for company
  - (B) Focus strategy of the producer
  - (C) Diversification strategy
  - (D) Overall cost leadership
45. The willingness to reject unfamiliar as well as negative information is called:
- (A) Marketing Myopia concept
  - (B) Vision Myopia
  - (C) Strategic Myopia
  - (D) Environmental Myopia
46. Timely and adequate assistance and rehabilitation efforts to MSEs should begin on a proactive basis when early signs of sickness are detected. This stage is termed as:
- (A) Supporting Stage
  - (B) Handholding Stage
  - (C) Sustaining Stage
  - (D) Targeting Stage
47. Which one among the following is not a factor external to an entrepreneur?
- (A) Capital on hire purchase
  - (B) Accommodation in industrial estates
  - (C) Financial assistance from non-government sources
  - (D) Business experience in the same or related line
48. Who among the following has not given a model on Corporate Social Responsibility (CSR)?
- (A) Walker
  - (B) Friedman
  - (C) Ackerman
  - (D) Carroll



49. Which one of the following is an example of 'Real needs' of a customer?
- (A) The customer wants an expensive mobile phone.
  - (B) The customer wants a car whose operating cost, not initial price, is low.
  - (C) The customer expects good service from the dealer.
  - (D) The customer wants friends to see him as a savvy consumer.
50. A firm earns return on investment at the rate of 20% , earning per share is Rs. 15, payout ratio is 50%, cost of equity is 12%; the market price per share as per Walter's model is:
- (A) Rs. 390
  - (B) Rs. 250
  - (C) Rs. 85
  - (D) Rs. 166.67
51. A firm is currently earning Rs. 50,000 and its one share has a present market value of Rs. 175. It has 5,000 shares outstanding. The earnings of the firm is expected to remain stable and it has a payout ratio of 100%. The cost of equity is:
- (A) 20%
  - (B) 5.71%
  - (C) 90%
  - (D) 24.50%
52. With project cost of Rs. 300 lacs, profits after depreciation (straight line method) and tax for its lifetime of 5 years are estimated at Rs. 10 lacs, Rs. 10 lacs, Rs. 30 lacs, Rs. 40 lacs and Rs. 50 lacs respectively. The cost of capital is 12% and discount factors @ 12%, for the first five years are 0.89, 0.80, 0.71, 0.64 and 0.57 respectively. The Net present value of project is:
- (A) Rs. 7.90 lacs
  - (B) Rs. 150 lacs
  - (C) Rs. (-)207.70 lacs
  - (D) Rs. 303.90 lacs
53. Takeover generally involves
- (A) The acquisition of part of an undertaking to enable the acquirer to increase the market share of the product concerned.
  - (B) The acquisition of certain block of equity capital of a company which enables the acquirer to exercise control over the affairs of the company.
  - (C) Taking over the responsibility to have trade agreement for finished product.
  - (D) Taking over certain long-term liabilities of another group company to help it financially.
54. Cars are parked in a very big parking lot. A researcher is required to estimate the proportion of cars that are red or the proportion of cars that are from a Japanese manufacturer. Which of the following statement is not correct?
- (A) A convenience sample of cars parked near the gate may give a biased estimate of the proportion of cars which are from a Japanese Manufacturer.
  - (B) Different investigators may get different estimates for the proportion of cars that are red.
  - (C) The sample proportion of cars that are red is an unbiased estimate of the population proportion if the sampling method is simple random.
  - (D) A sample of 100 cars in a convenience sample is always better than a sample of 20 cars from a proper random sampling method.
55. People who take the risks necessary to organize manage and receive the financial profits and non-monetary rewards are called
- (A) Corporate giants
  - (B) Employees
  - (C) Competitors
  - (D) Entrepreneurs

56. The Branding strategy which uses a different brand name for each product is known as  
(A) Minimal Family Branding  
(B) Line Family Branding  
(C) Individual Branding  
(D) Brand Extension further
57. Statement I: The slope of an indifference curve is the Marginal Rate of Substitution in the consumption (MRSc), which is increasing.  
Statement II: The slope of the budget line is ratio of the prices of two goods and is the Marginal Rate of Substitution in exchange (MRSe)  
(A) Statement I and II are correct.  
(B) Statement I is correct, but II is incorrect.  
(C) Statements I and II are incorrect.  
(D) Statement I is not correct, but II is correct.
58. Forming a fixed opinion or attitude towards a single person or object is termed as  
(A) Sporadic defence  
(B) Stereo typing  
(C) The Halo effect  
(D) The perceptual set
59. When a firm has diversified in unrelated products, it is called  
(A) Scramble diversification  
(B) Related diversification  
(C) Product mix  
(D) Product line simplification
60. Which of the following condition is true about determinants and strengths of positioning strategy?  
(A) There should be competition warranting positioning.  
(B) The market segment to be served should be sizeable and profitable.  
(C) The market segment should be able to effectively receive communication messages transmitted by the company.  
(D) All of these.
61. Delphi method of estimating future demand for a product or service is associated with  
(A) Past sales analysis  
(B) Expert opinion method  
(C) Market test method  
(D) Composite of sales force opinion
62. A method for deriving the utility values that consumers attach to varying levels of a product attribute is called  
(A) Product analysis  
(B) Conjunctive analysis  
(C) Conjoint analysis  
(D) Market price analysis
63. Coefficient of determination ( $R^2$ ) indicates  
(A) Percentage of variation in the dependent variable that can be explained by independent variable.  
(B) Percentage of variation in the dependent variable that cannot be explained by independent variable.  
(C) Percentage variation in the independent variable that can be explained by dependent variable.  
(D) Percentage variation in the independent variable that cannot be explained by the dependent variable.

64. If  $\alpha = 0.05$  and  $\beta = 0.10$ , the power of that hypothesis test is  
(A) 0.25  
(B) 0.90  
(C) 0.75  
(D) 0.85
65. Arrange the Entrepreneurial motivation factors on the basis of proper sequences.  
(A) Need for achievement, Locus of control, vision, desire for independence, passion and drive.  
(B) Locus of control, vision, desire for independence, passion, drives and need for achievement.  
(C) Vision, desire for independence, passion, drive, locus of control and need for achievement.  
(D) Desire for independence, need for achievement, and locus of control, vision, passion and drive.
66. The main function of venture capitalist is to  
(A) Provide funds to the steps necessary to establish the commercial viability of a new product, process or service.  
(B) Provide funds at all stages of marketing of new product, process or service.  
(C) Provide funds at all stages of production of a new product, process or a service.  
(D) Provide funds at all stages of Research of a new product, process or a service.
67. An industrial unit, according to RBI, is sick if  
(A) Incurred cash loss in the previous accounting year.  
(B) Likely to incur loss in the following year.  
(C) Current ratio is less than 1: 1 with weak debt: equity ratio.  
(D) All of the above.
68. When an Indian exporter avails post shipment credit in foreign currency, what is taken as the bench mark for the interest rate?  
(A) Bench mark lending rate  
(B) MIBOR  
(C) LIBOR  
(D) Indian Bank rate
69. The value of the firm is maximized when the  
(A) Market price of equity share is maximum  
(B) Market price of equity share is minimum  
(C) Market value of debt is maximum  
(D) None of the above
70. A Binomial distribution is characterized as  $b(16, 0.5)$  i.e. sample size is 16 and the probability of success is 0.5. The mean and variance of this distribution will be respectively  
(A) 8, 4  
(B) 8, 8  
(C) 4, 8  
(D) 4, 4