

Roll No.-----

**Paper Code**

**284 / 285**

(To be filled in the  
OMR Sheet)

प्रश्नपुस्तिका क्रमांक  
Question Booklet No.

O.M.R. Serial No.

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प्रश्नपुस्तिका सीरीज  
Question Booklet Series

**C**

## BBA-Part-I (Second Semester) Examination, July-2022

**F010203T(A+B)**

### Business Mathematics + Advertising Management

Time : 3:00 Hours

Maximum Marks-200

जब तक कहा न जाय, इस प्रश्नपुस्तिका को न खोलें

- निर्देश : -
1. परीक्षार्थी अपने अनुक्रमांक, विषय एवं प्रश्नपुस्तिका की सीरीज का विवरण यथास्थान सही- सही भरें, अन्यथा मूल्यांकन में किसी भी प्रकार की विसंगति की दशा में उसकी जिम्मेदारी स्वयं परीक्षार्थी की होगी।
  2. इस प्रश्नपुस्तिका में 200 प्रश्न हैं, जो दो खण्डों में विभाजित हैं। प्रथम खण्ड में 100 एवं द्वितीय खण्ड में 100 प्रश्न हैं। इस प्रकार परीक्षार्थियों को प्रत्येक खण्ड से 75-75 प्रश्नों के उत्तर देने हैं। इस प्रकार परीक्षार्थी को कुल 150 प्रश्नों के उत्तर देने हैं। प्रत्येक प्रश्न के चार वैकल्पिक उत्तर प्रश्न के नीचे दिये गये हैं। इन चारों में से केवल एक ही उत्तर सही है। जिस उत्तर को आप सही या सबसे उचित समझते हैं, अपने उत्तर पत्रक (O.M.R. ANSWER SHEET) में उसके अक्षर वाले वृत्त को काले या नीले बाल प्वाइंट पेन से पूरा भर दें। यदि किसी परीक्षार्थी द्वारा किसी प्रश्न का एक से अधिक उत्तर दिया जाता है, तो उसे गलत उत्तर माना जायेगा।
  3. प्रत्येक प्रश्न के अंक समान हैं। आप के जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
  4. सभी उत्तर केवल ओ०एम०आर० उत्तर पत्रक (O.M.R. ANSWER SHEET) पर ही दिये जाने हैं। उत्तर पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
  5. ओ०एम०आर० उत्तर पत्रक (O.M.R. ANSWER SHEET) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाय।
  6. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी ओ०एम०आर० शीट उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें।
  7. निगेटिव मार्किंग नहीं है।

महत्वपूर्ण : -

प्रश्नपुस्तिका खोलने पर प्रथमतः जाँच कर देख लें कि प्रश्नपुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्ष निरीक्षक को दिखाकर उसी सीरीज की दूसरी प्रश्नपुस्तिका प्राप्त कर लें।

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**(Section First) प्रथम खण्ड**

**To be Filled in the OMR Sheet  
(Paper Code-284)**

**F010203T-A (Business Mathematics)**

1. Which of the following two sets are equal ?  
(A)  $A=\{1,2\}$  and  $B=\{1\}$   
(B)  $A=\{1,2\}$  and  $B=\{1,2,3\}$   
(C)  $A=\{1,2,3\}$  and  $B=\{2,1,3\}$   
(D)  $A=\{1,2,4\}$  and  $B=\{1,2,3\}$
2. Power set of empty set has exactly \_\_\_\_\_ subset.  
(A) One  
(B) Two  
(C) Zero  
(D) Three
3. The cost of an article was Rs.75. The cost was first increased by 20% and later on it was reduced by 20%. The present cost of article is :  
(A) 80  
(B) 96  
(C) 90  
(D) 86
4. Twelve point five percent written as a decimal is :  
(A) 0.125  
(B) 0.025  
(C) 0.0125  
(D) 1.05
5.  $Y=(x+1)^{1/2}$  Find  $dy/dx$  :  
(A)  $dy/dx = (x + 1)$   
(B)  $dy/dx = \frac{1}{2}(x + 1)^{-1/2}$   
(C)  $dy/dx = \frac{1}{2}(x + 1)^{\frac{1}{2}}$   
(D) None of these

6. Find  $dy/dx$  where  $Y=(4+3x^2)/5x^3$  :
- (A)  $dy/dx= -12x^{-4}/5-3x^{-2}/5$   
(B)  $dy/dx = +12x^4/5+3x^2/5$   
(C)  $dy/dx= -5x^3/5+3x^2/2$   
(D) None of these
7. Find  $dy/dx$  where  $Y=5x^{1.5}$  :
- (A)  $dy/dx = 1.5x^{1.5}$   
(B)  $dy/dx=7.5x^{0.5}$   
(C)  $dy/dx =3/2x^{0.5}$   
(D) None of these
8. Find the derivative of  $m = 13x^4 - 7x^3 + 25x^2 - 2x - 156$  :
- (A)  $dm/dx = 52x^3 + 15x^2 + 48x - 2$   
(B)  $dm/dx = 52x^3 + 15x^2 + 36y^2 + 48x + 2x - 2$   
(C)  $dm/dx = 52x^3 + 15x^3 + 36y^2 + 48x + 2x - 3$   
(D)  $dm/dx = 52x^3 - 21x^2 + 50x - 2$
9. If  $Y=2^X$ , then  $dy/dx$  is :
- (A)  $x(2^{x-1})$   
(B)  $2^x/\log 2$   
(C)  $2^x \log 2$   
(D) None of these
10. No of combinations that can be made from 'n' items selecting 'r' at a time is equal to :
- (A)  $n!/(n-r)!$   
(B)  $n!/(n-r)!r!$   
(C)  $n!/r!$   
(D)  $r!/(n-r)!n!$

11. Rate of interest when principal, Time & interest are given can be calculated by :
- (A)  $R = \frac{SI \times T}{100 \times P}$   
 (B)  $P = \frac{SI \times 100}{P \times T}$   
 (C)  $P \times T / SI \times 100$   
 (D)  $SI \times T / P \times 100$
12. Sum of an infinite G.P. is :
- (A)  $a^n - 1/a$   
 (B)  $a(r^n - 1)/r - 1$   
 (C)  $\frac{a}{1-r}$   
 (D)  $1 - a^n/a$
13. If an A.P. is 3, 5, 7, 9 ..... Find 12<sup>th</sup> term of an A.P. :
- (A) 12  
 (B) 21  
 (C) 22  
 (D) 25
14. If a is the first term and r is the common ratio then the n<sup>th</sup> term of GP is :
- (A)  $(ar)^{n-1}$   
 (B)  $a \times r^n$   
 (C)  $a r^{n-1}$   
 (D) None of these
15. The first term of a GP is 1. The sum of n terms when common ratio is r ratio of GP is :
- (A)  $\frac{(1-r)}{(1-r^n)}$   
 (B)  $\frac{(r-1)}{(r^n-1)}$   
 (C) Both (A) & (B)  
 (D) None of these

16.  $dY/dX = x^3 + 3x^2 + 1/x$  Integrate to find Y :

(A)  $Y = \frac{x^4}{4} + x^3 + \log_e x$

(B)  $Y = x^4 + 3/3x^3 - \log_e x$

(C)  $Y = x^4 / + 3/2x^3 + \log_e x$

(D) None of these

17. Find the minimum value of function :

(A)  $2/3$

(B)  $7/18$

(C)  $19/8$

(D) None of these

18. Find maximum value of function :

(A)  $18/7$

(B)  $3/2$

(C)  $7/18$

(D) None of these

19. Find point of Minima :

(A)  $2/3$

(B)  $+1/3$

(C)  $-1/3$

(D) None of these

20. Find point of Maxima :

(A)  $+1/3$

(B)  $-1/3$

(C)  $2/3$

(D) None of these

21. Find  $d^2Y/dX^2$  :
- (A)  $18x + 3$
  - (B)  $18x + 2$
  - (C)  $18x - 3$
  - (D)  $18x - 2$
22. If  $Y = 3x^3 - 3/2x^2 - 2x + 3/2$  find  $dY/dX$  :
- (A)  $9x^2 - 3x - 2x + 3/2$
  - (B)  $9x^2 - 3x - 2$
  - (C)  $3x^3 - 3x^2 - 2$
  - (D) None of the above
23. If the positive numbers a, b, c, d are in A. P. then abc, bcd, adc are in :
- (A) Not in A.P./G.P./H.P.
  - (B) A.P.
  - (C) G.P.
  - (D) H.P.
24. An example of A. P. series is :
- (A) 9, 20, 21, 28
  - (B) 1, 2, 4, 8
  - (C) 1, 2, 3, 14
  - (D) 3, 5, 7, 9
25. If  $2/3, k, 5/8$  are in AP then the value of k is :
- (A)  $31/24$
  - (B)  $31/48$
  - (C)  $24/31$
  - (D)  $48/31$

26. The first term of a GP is 1. The sum of infinite term is :
- (A)  $\frac{1}{1-r}$
  - (B)  $\frac{1}{1+r}$
  - (C)  $\frac{1}{1-r^n}$
  - (D)  $\frac{1}{r^n-1}$
27. An example of geometric series is :
- (A) 9, 20, 21, 28
  - (B) 1, 2, 4, 8
  - (C) 1, 2, 3, 4
  - (D) 3, 5, 7, 9
28. If the  $n^{\text{th}}$  term of an arithmetic progression is  $3n-4$ , then the  $10^{\text{th}}$  term of an A.P. is :
- (A) 10
  - (B) 12
  - (C) 22
  - (D) 26
29. Which of the following is an example of a geometric sequence ?
- (A) 1, 2, 3, 4
  - (B) 1, 2, 4, 8
  - (C) 3, 5, 7, 9
  - (D) 9, 20, 21, 28
30. If “a” is the first term and “r” is the common ratio, then the  $n^{\text{th}}$  term of a G.P. is :
- (A)  $ar^n$
  - (B)  $ar^{n-1}$
  - (C)  $(ar)^{n-1}$
  - (D) None of these



31. The 10<sup>th</sup> term of the A.P. 5, 8, 11, 14, ... is :
- (A) 32
  - (B) 35
  - (C) 38
  - (D) 185
32. The list of numbers -10, -6, -2, 2,..... is :
- (A) An A.P. with  $d = -16$
  - (B) An A.P. with  $d = 4$
  - (C) An A. P. with  $d = -4$
  - (D) Not an A. P.
33. Which of the following is not a possible ordered pair for a matrix with 6 elements ?
- (A) (2, 3)
  - (B) (3, 2)
  - (C) (1, 6)
  - (D) (6, 2)
34. The following is not a type of matrix :
- (A) Scalar matrix
  - (B) Diagonal matrix
  - (C) Symmetric matrix
  - (D) Minor matrix
35. The Matrix which follows the condition  $m > n$  is called as :
- (A) Vertical matrix
  - (B) Horizontal matrix
  - (C) Diagonal matrix
  - (D) Square matrix A

36. The matrix which follows the condition  $m = n$  is called :
- (A) Square matrix
  - (B) Rectangular matrix
  - (C) Scalar matrix
  - (D) Diagonal matrix
37. If for a square matrix  $A^2 = A$  then such a matrix is known as :
- (A) Idempotent matrix
  - (B) Orthogonal matrix
  - (C) Null matrix
  - (D) None of the above
38. If A is a lower triangular Matrix then  $A^T$  is :
- (A) A lower triangular matrix
  - (B) Upper triangular matrix
  - (C) Null matrix
  - (D) None of the above
39. For Matrix  $(A^T)^T$  is equals to :
- (A) A
  - (B) B
  - (C) Can't say
  - (D) None of the above
40. For a matrix A if a matrix B is obtained by changing its rows into columns and columns into rows then the relation between a and b is :
- (A)  $A^2 = B$
  - (B)  $A^T = B$
  - (C) Depends on the matrix
  - (D) None of the above

41. If determinant of a matrix A is zero :
- (A) Then A is a singular matrix
  - (B) A is a non singular matrix
  - (C) Can't say
  - (D) None of the above
42. The determinant of identity matrix is :
- (A) 1
  - (B) 0
  - (C) Depends on the matrix
  - (D) None of the above
43. Which of the following property of matrix multiplication is correct ?
- (A) Multiplication is not commutative in general
  - (B) Multiplication is associated
  - (C) Multiplication is distributive over addition
  - (D) All of the mentioned
44. Consider the matrix  $A = \begin{bmatrix} -1 & 0 & 5 \\ 2 & 0 & -1 \\ 1 & 6 & 4 \end{bmatrix}$  Find the element  $a_{32}$  :
- (A) 5
  - (B) 6
  - (C) 4
  - (D) 8
45. What is the order of the matrix  $A = \begin{bmatrix} 3 & 9 \\ -1 & 2 \end{bmatrix}$  ?
- (A)  $2 \times 3$
  - (B)  $2 \times 2$
  - (C)  $3 \times 3$
  - (D)  $4 \times 4$

46. If the order of the matrix is  $m \times n$ , then how many elements will there be in the matrix ?
- (A)  $mn$   
 (B)  $m^2 n^2$   
 (C)  $mn^2$   
 (D)  $2mn$
47. If  $A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ -1 & 0 & -1 \end{bmatrix}$  then find  $a_{22}$  :
- (A) 5  
 (B) 4  
 (C) 6  
 (D) 3
48. If A is an  $m \times n$  matrix such that AB and BA are both defined, the B is a :
- (A)  $m \times n$  matrix  
 (B)  $n \times m$  matrix  
 (C)  $n \times n$  matrix  
 (D)  $m \times n$  matrix
49. If A is a matrix of order  $m \times n$  and B is a matrix such that  $AB^T$  and  $B^T A$  are both defined, then the order of matrix B is :
- (A)  $m \times m$   
 (B)  $n \times n$   
 (C)  $n \times m$   
 (D)  $m \times n$
50. If  $\begin{bmatrix} x + y & y + z \\ x + z & x + w \end{bmatrix} = \begin{bmatrix} 4 & 5 \\ 5 & 6 \end{bmatrix}$  then the values of x, y, z and w respectively are :
- (A) 2, 2, 3, 4  
 (B) 2, 3, 1, 2  
 (C) 3, 3, 0, 1  
 (D) None of these

51. The matrix  $A = \begin{bmatrix} 1 & 1 & -1 \\ 1 & 2 & 0 \\ -1 & 0 & 5 \end{bmatrix}$  is a :
- (A) Unit matrix  
 (B) Symmetric matrix  
 (C) Diagonal matrix  
 (D) Skew-symmetric matrix
52. The matrix  $\begin{bmatrix} 3 & 0 & 0 \\ 0 & 6 & 0 \\ 0 & 0 & 2 \end{bmatrix}$  is :
- (A) A skew-symmetric matrix  
 (B) A symmetric matrix  
 (C) A diagonal matrix  
 (D) An upper triangular matrix
53. If a matrix A is both symmetric and skew-symmetric, then :
- (A) A is a diagonal matrix  
 (B) A is a zero matrix  
 (C) A is a scalar matrix  
 (D) A is a square matrix
54. For any square matrix A,  $AA^T$  is a :
- (A) Unit matrix  
 (B) Symmetric matrix  
 (C) Skew-symmetric matrix  
 (D) Diagonal matrix
55. Find the inverse of the matrix  $A = \begin{bmatrix} 1 & 2 \\ 3 & 7 \end{bmatrix}$  using elementary row transformation :
- (A)  $\begin{bmatrix} 7 & -3 \\ -2 & 1 \end{bmatrix}$   
 (B)  $\begin{bmatrix} 5 & -3 \\ -2 & 1 \end{bmatrix}$   
 (C)  $\begin{bmatrix} 1 & -3 \\ -2 & 1 \end{bmatrix}$   
 (D)  $\begin{bmatrix} 1 & -3 \\ 2 & 1 \end{bmatrix}$

56. If  $A = \begin{bmatrix} a & b \\ b & a \end{bmatrix}$  and  $A^2 = \begin{bmatrix} \alpha & \beta \\ \beta & \alpha \end{bmatrix}$ , then :
- (A)  $\alpha = a^2 + b^2, \beta = ab$   
(B)  $\alpha = a^2 + b^2, \beta = 2ab$   
(C)  $\alpha = a^2 + b^2, \beta = a^2 - b^2$   
(D)  $\alpha = 2ab, \beta = a^2 + b^2$
57. In the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 runs ?
- (A) 6.25  
(B) 6.5  
(C) 6.75  
(D) 7
58. Find the average of all numbers between 6 and 34 which are divisible by 5 :
- (A) 15  
(B) 20  
(C) 25  
(D) 30
59. The average of four consecutive odd numbers is 24. Find the largest number :
- (A) 25  
(B) 27  
(C) 29  
(D) 31
60. A man spends Rs.1800 monthly on an average for the first four months and Rs.2000 monthly for the next eight months and saves Rs.5600 a year. His average monthly income is :
- (A) Rs.2000  
(B) Rs.2200  
(C) Rs.2400  
(D) Rs.2600

61. If A and B are in the ratio 3 : 4, and B and C in the ratio 12 : 13, then A and C will be in the ratio :
- (A) 3:13
  - (B) 9:13
  - (C) 36:13
  - (D) 13:9
62. Two numbers x and y are in the ratio 5:7 and their sum is 36: Then x is:
- (A) 12
  - (B) 15
  - (C) 18
  - (D) 19
63. If  $a : b : c = 3 : 4 : 7$ , then the ratio  $(a + b + c) : c$  is equal to:
- (A) 2 :1
  - (B) 14:3
  - (C) 7:2
  - (D) 1:2
64. 100 students appeared in annual examination. 60 students passed. The ratio of the number of students who failed to the total number of students is :
- (A) 5:2
  - (B) 2:5
  - (C) 2:3
  - (D) 3:2
65. The cost of 1 dozen bananas is ₹30. The cost of 6 oranges is ₹18. The ratio of the cost of a banana to the cost of an orange is :
- (A) 3:2
  - (B) 2:3
  - (C) 6:5
  - (D) 5:6

66. The ratio of 25 minutes to 1 hour is :
- (A) 7:5
  - (B) 5:12
  - (C) 12:5
  - (D) 5:7
67. Which of the following ratios is equivalent to 2:3 ?
- (A) 4:8
  - (B) 4:9
  - (C) 6:9
  - (D) 6:12
68. There are 25 boys and 25 girls in a class. The ratio of the number of boys to the total number of students is :
- (A) 1:2
  - (B) 1:3
  - (C) 2:3
  - (D) 3:2
69. Half percent is written as :
- (A) 0.05
  - (B) 0.005
  - (C) 0.002
  - (D) 0.02
70. Which of the following is a finite set ?
1. The set of days in a week
  2.  $A = \{x : x \in \mathbb{N} \text{ and } x > 1\}$
  3.  $B = \{x : x \text{ is an even prime number}\}$
- (A) Statement 1
  - (B) Statement 2
  - (C) Statement 3
  - (D) None of these



71. Which of the following are well-defined sets ?
1. All the colors in the rainbow
  2. All the honest members in the family
- (A) Statement 1  
(B) Statement 2  
(C) Both (A) and (B)  
(D) None of these
72. The number of ways in which 8 distinct toys can be distributed among 5 children is:
- (A)  $5^8$   
(B)  $8^5$   
(C)  ${}^8P_5$   
(D)  ${}^5P_5$
73. The number of combination of n distinct objects taken r at a time be x is given by:
- (A)  ${}^{n/2}C_r$   
(B)  ${}^{n/2}C_{r/2}$   
(C)  ${}^nC_{r/2}$   
(D)  ${}^nC_r$
74. The number of ways of painting the faces of a cube with six different colors is :
- (A) 1  
(B) 6  
(C) 6!  
(D) None of these
75. Equivalent set represented as:  $n(A) = n(B)$  :
- (A) True  
(B) False  
(C) Can be true or false  
(D) Can not say

76. IF  $A = [5, 6, 7]$  and  $B = [7, 8, 9]$  then  $A \cup B$  is equal to :
- (A)  $[5, 6, 7]$
  - (B)  $[5, 6, 7, 8, 9]$
  - (C)  $[7, 8, 9]$
  - (D) None of the above
77. A set which does not contain any element is called \_\_\_\_\_ ?
- (A) Singleton set
  - (B) Empty set
  - (C) Finite set
  - (D) Infinite set
78. A set is usually represented by the capital letter :
- (A) True
  - (B) False
  - (C) Can be true or false
  - (D) None
79. Usually, sets are represented in curly braces ?
- (A)  $[]$
  - (B)  $()$
  - (C)  $%%$
  - (D)  $\{\}$
80. \_\_\_\_\_ in mathematics, are an organized Collection of objects and can be represented in set-builder form or roster form.
- (A) List
  - (B) Sets
  - (C) Relations
  - (D) Functions

81. Find the number of ways of arranging the letters of the words DANGER, so that no vowel occupies odd place :
- (A) 36
  - (B) 48
  - (C) 144
  - (D) 96
82. The formula for permutations and combinations are related as:  $nCr = nPr/r!$  :
- (A) Yes
  - (B) No
  - (C) Can't say
  - (D) None of the above
83. Find the number of permutations if  $n=12$  and  $r=2$  :
- (A) 24
  - (B) 60
  - (C) 106
  - (D) 132
84. Permutation relates to the act of arranging all the members of a set into some sequence or order :
- (A) True
  - (B) False
  - (C) Can be true or false
  - (D) None of the above
85. \_\_\_\_\_ are the ways to represent a group of objects by selecting them in a set and forming subsets.
- (A) Permutation
  - (B) Combination
  - (C) Both (A) and (B)
  - (D) None of the above

86. Rs. 4000 is invested at 8% p.a. simple interest for 5 years, find the interest :
- (A) Rs. 800
  - (B) Rs.1600
  - (C) Rs.600
  - (D) Rs.1900
87. A Sum of money at simple interest of 20% p.a. will take how many years to double itself ?
- (A) 4 years
  - (B) 5 years
  - (C) 8 years
  - (D) 10 years
88. Which of the following represents 3:4 ?
- (A) 50%
  - (B) 35%
  - (C) 25%
  - (D) 75%
89. If ₹12000 taken for 2 years at 4% per annum compounded quarterly, then time period and rate is :
- (A)  $n = 2, R = 16\%$
  - (B)  $n = 4, R = 1\%$
  - (C)  $n = 8, R = 1\%$
  - (D)  $n = 8, R = 16\%$
90. What is the Sum that Amounts to ₹1680 in 5 years at the rate of 8% per annum simple interest ?
- (A) ₹  $\{100 \times 1680 / 100 \times (5+8)\}$
  - (B) ₹  $\{100 \times 1680 / (100+5) \times 8\}$
  - (C) ₹  $\{1680 \times 5 \times 8 / 100\}$
  - (D) ₹  $\{(100+5) \times 8 \times 100 / 1680\}$

91. The 2<sup>nd</sup> term of an AP is 13 and its 5<sup>th</sup> term is 25. What is the 17<sup>th</sup> term ?
- (A) 69  
(B) 73  
(C) 77  
(D) 81
92. 30<sup>th</sup> term of the A.P: 10, 7, 4, ....., is :
- (A) 97  
(B) 77  
(C) -77  
(D) -87
93. Find the general term of the series 4,7,10,13.....
- (A)  $3n - 7$   
(B)  $3n + 7$   
(C)  $3n + 1$   
(D)  $3n - 1$
94. If  $a=10$  and  $d=10$ , then first four terms will be :
- (A) 10,30,50,60  
(B) 10,20,30,40  
(C) 10,15,20,25  
(D) 10,18,20,30
95. The first term of a GP is 1. The sum of the third term and fifth term is 90. The common ratio of GP is :
- (A) 1  
(B) 2  
(C) 3  
(D) 4

96. The third term of geometric progression is 9. The product of the first five terms is :
- (A)  $3^3$
  - (B)  $3^5$
  - (C)  $3^{10}$
  - (D) None of these
97. If a, b, c are in AP then :
- (A)  $b = a + c$
  - (B)  $2b = a + c$
  - (C)  $b^2 = a + c$
  - (D) None of these
98. The  $n^{\text{th}}$  term of an A.P. is given by  $a_n = 5 + 4n$ . The common difference is :
- (A) 7
  - (B) 3
  - (C) 4
  - (D) None of these
99. In a class of 40 students, 12 enrolled for both English and German. 22 enrolled for German. If the students of the class enrolled for at least one of the two subjects, then how many students enrolled for only English and not German ?
- (A) 30
  - (B) 10
  - (C) 18
  - (D) None of these
100. In a language survey of students it is found that 80 students know English, 60 know French, 50 know German, 30 know English and French, 20 know French and German, 15 know English and German and 10 students know all the three languages. How many students know at least one language?
- (A) 135
  - (B) 30
  - (C) 10
  - (D) 145

**(Section Second) द्वितीय खण्ड**  
**[To be Filled in the OMR Sheet]**  
**(Paper Code-285)**

**F010203T-B (Advertising Management)**

1. Decision areas in international advertising:
  - (A) Positioning of the Global brand
  - (B) Target group
  - (C) Advertising objectives
  - (D) All of the above
  
2. The best media to advertise a fertilizer is:
  - (A) Wall painting
  - (B) Hoarding
  - (C) Both (A) and (B)
  - (D) None of the above
  
3. 4 P's stands for:
  - (A) Product, public, price, peace
  - (B) Public, Price, Packaging, Piece
  - (C) Product, Price, Place, Promotion
  - (D) Product, Peace, Place, Promotion
  
4. PLC stands for:
  - (A) Personal life cycle
  - (B) Product life cycle
  - (C) Product life circle
  - (D) Personal life circle
  
5. Grapevine is:
  - (A) Formal communication
  - (B) Informal communication
  - (C) Both (A) and (B)
  - (D) None of the above

6. Which one is not correct related Primary principles of ethics in advertising?
- (A) Honesty
  - (B) Social responsibility
  - (C) Monopoly
  - (D) Safety and health
7. Sales Promotion is:
- (A) Consumer based
  - (B) Middleman based
  - (C) Salesman based
  - (D) All of the above
8. Effective communication is a:
- (A) Non continuous process
  - (B) Continuous process
  - (C) One-way process
  - (D) None of the above
9. Written communication is a:
- (A) Verbal communication
  - (B) Nonverbal communication
  - (C) Both (A) and (B)
  - (D) None of the above
10. Which one is not a scope of advertising research?
- (A) Media exposure
  - (B) Advertisement perception
  - (C) Behavioral response
  - (D) Increased cost



11. Importance of advertising research:
- (A) Provides a basis for sound decision
  - (B) Ensure effectiveness
  - (C) Delivers goal explanation
  - (D) All of the above
12. Core brand values should be predictable via:
- (A) Consistent messages
  - (B) Conservative messages
  - (C) Contradictory messages
  - (D) Conflicting messages
13. Newspaper advertising strength:
- (A) Audience in appropriate mental frame
  - (B) Mass audience coverage
  - (C) Flexibility
  - (D) All of the above
14. Which of the following is not an area of dependability for people who work in an advertising agency?
- (A) Creativity
  - (B) Printing
  - (C) Buying
  - (D) Research

15. \_\_\_\_\_ is a combination of marketing functions, including advertising, used to sell a product.
- (A) Sales promotion
  - (B) Marketing mix
  - (C) Public relation
  - (D) New advertising
16. Advertising by a local merchants who sells directly to the customer is?
- (A) End product advertising
  - (B) National advertising
  - (C) Retail advertising
  - (D) Direct response advertising
17. The \_\_\_\_\_ team develops the message strategy from the copy platform.
- (A) Creative
  - (B) Editor
  - (C) Accounts planner
  - (D) Producers
18. The product that reaches maturity and wide scale acceptance enter the \_\_\_\_\_ stage of advertising.
- (A) Pioneer
  - (B) Competitive
  - (C) Retentive
  - (D) Relative

19. \_\_\_\_\_ means doing what the advertiser and the advertisers peers believe is morally right in a given situation.
- (A) Social advertising
  - (B) Ethical advertising
  - (C) Legal advertising
  - (D) Physical advertising
20. Marketing communication is used to achieve one of two principle goals the first concern the development of brand value. What is the other goal?
- (A) Informing about product
  - (B) Increasing sales
  - (C) Changing the behaviour of audience
  - (D) Channelise communication tools
21. Cultural Differences is a:
- (A) Limitation of international advertising
  - (B) Advantage of international advertising
  - (C) Advantage of national advertising
  - (D) None of the above
22. Which one is not a main component of international advertising?
- (A) Strategy
  - (B) Organisation
  - (C) Product
  - (D) Media

23. Components of media strategy does not includes:
- (A) Target audience
  - (B) Media selection
  - (C) Product development
  - (D) Media budgeting
24. Objectives of media planning does not includes:
- (A) Create awareness
  - (B) To provide best possible solution
  - (C) To identify the market target
  - (D) Audience Limitations
25. Main merit of internet media is:
- (A) Flexibility
  - (B) Personal touch
  - (C) Speed
  - (D) Limited coverage
26. Static message is a main advantage of:
- (A) Broadcasting media
  - (B) Print media
  - (C) Outdoor media
  - (D) None of the above

27. Which one is not a form of print media?
- (A) Newspaper
  - (B) Television
  - (C) Magazine
  - (D) Brochure
28. Advertising channels are:
- (A) Newspaper
  - (B) Television
  - (C) Magazines
  - (D) All of the above
29. Creative strategies in advertisement are:
- (A) Attitudinal strategy
  - (B) Positive and negative strategy
  - (C) Both (A) and (B)
  - (D) None of the above
30. Importance of Creativity in advertising are:
- (A) Creativity helps in informing
  - (B) Creativity helps in persuading
  - (C) Creativity helps in reminding
  - (D) All of the above

31. Stages in copy writing:
- (A) Abstracting
  - (B) Synthesizing
  - (C) Hypothesizing
  - (D) All of the above
32. Which one is not a type of advertising copy?
- (A) Scientific copy
  - (B) Narrative copy
  - (C) Product copy
  - (D) Personality copy
33. Which one is not a component of advertising copy?
- (A) Headlines
  - (B) Logo
  - (C) Channel
  - (D) Illustration
34. The objectives of preparing and advertising copy can be:
- (A) Direct
  - (B) Indirect
  - (C) Both (A) and (B)
  - (D) None of the above

35. Which one is not a main characteristics of advertisement copy?
- (A) Attractive
  - (B) Size
  - (C) Interesting
  - (D) Educative
36. Which one is not main parameter in allocating advertising budget?
- (A) Media
  - (B) Sales territories
  - (C) Total exposure
  - (D) Objectives
37. Which one is not a method of budgeting?
- (A) Sales method
  - (B) Judgement method
  - (C) Product method
  - (D) Quantitative method
38. Objectives of preparing advertising budget:
- (A) To communicate
  - (B) To coordinate
  - (C) To plan
  - (D) All of the above

39. Which one is the first phase in communication function according to DAGMAR technique?
- (A) Comprehension
  - (B) Awareness
  - (C) Conviction
  - (D) Action
40. DAGMAR model meaning:
- (A) Defining advertising goals for measured advertising results
  - (B) Defining attention and goals for measure attractive results
  - (C) Advertising goals for measured attractive results
  - (D) None of the above
41. Build brand awareness is a:
- (A) Promotional objective
  - (B) Management objective
  - (C) Selling objective
  - (D) None of the above
42. Which one is not a importance of branding?
- (A) Easy to recognise
  - (B) Minimum fluctuation in price
  - (C) Low cost
  - (D) Mental satisfaction



43. Which one is not a brand element?
- (A) Brand names
  - (B) Logos
  - (C) Trademark
  - (D) Price
44. The term Branding is a:
- (A) Very broad concept
  - (B) Narrow concept
  - (C) Both (A) and (B)
  - (D) None of the above
45. Types of brand can be classified:
- (A) According to ownership
  - (B) According to market area
  - (C) According to number of products
  - (D) All of the above
46. Which one is not a level of Brand?
- (A) Attribute brand
  - (B) Emotional brand
  - (C) Value brand
  - (D) Physical brand

47. Brand is a name, term, sign, symbol or design or a combination of them which is intended to identify the goods or services of one seller or a group of sellers and to differentiate them from those of competitors:
- (A) According to American Management Association
  - (B) According to Philip Kotler
  - (C) According to Mellerowicz
  - (D) According to British Management Association
48. Free distribution of samples is a:
- (A) Consumer promotion tool
  - (B) Management tool
  - (C) Middleman promotion tool
  - (D) Planning tool
49. Sales promotion is an exercise in information persuasion and influence:
- (A) According to William J Stanton
  - (B) According to AMA
  - (C) According to Philip Kotler
  - (D) According to wheeler
50. Which of these is a possible disadvantage of IMC?
- (A) Centralisation
  - (B) Communications synergy
  - (C) Coordinated product development
  - (D) Customer focus

51. IMC is about:
- (A) Coordinated promotional tools
  - (B) Bear for the marketing strategy
  - (C) Harmonized message
  - (D) A strategically resolute bend of internal and external messages
52. Which one is a regular program sponsor by only one advertiser?
- (A) Program sponsorship
  - (B) Franchise
  - (C) Program editor
  - (D) Full program sponsorship
53. The words used in an advertisement is referred to as:
- (A) Data
  - (B) Artwork
  - (C) Copy
  - (D) Text
54. Mass marketing is otherwise known as:
- (A) Undifferentiated marketing
  - (B) Differentiated marketing
  - (C) Concentrated marketing
  - (D) Customized marketing

55. Placement of advertisement inside or outside transportation vehicle is known as:
- (A) Aerial advertising
  - (B) Outdoor advertising
  - (C) Transit advertising
  - (D) Classified
56. Any device or word that identify the origin of the product, the manufacturer details etc. is known as:
- (A) Trade name
  - (B) Brand name
  - (C) Trademark
  - (D) Identity
57. Which one is a sequential model used to explain how advertising works?
- (A) AIRA
  - (B) AIDA
  - (C) ADD
  - (D) SWOT
58. Which one is the foundation of any advertising or marketing campaign?
- (A) Research
  - (B) Target segmentation
  - (C) Creative brief
  - (D) Media planning

59. The use of short term incentives to encourage the purchase or sale of a product or service is called:
- (A) Direct marketing
  - (B) Sales promotion
  - (C) Personal selling
  - (D) Public relation
60. Intellectual property refers to creation of the:
- (A) Team
  - (B) Employees
  - (C) Advertising agency
  - (D) Mind
61. Which one is a long tool for promotion?
- (A) Marketing mix
  - (B) Advertising
  - (C) Management
  - (D) None of the above
62. Production is a part of which department?
- (A) Creative
  - (B) Media
  - (C) Client servicing
  - (D) marketing research
63. Which media has the highest value of reach in the Indian context?
- (A) TV
  - (B) Newspaper
  - (C) Radio
  - (D) Magazine

64. Which one of the following is not a media vehicle?
- (A) Brochure
  - (B) Television
  - (C) Conference Hall
  - (D) Internet
65. Brand switching is one of the objectives of:
- (A) Management
  - (B) Marketing
  - (C) Advertising
  - (D) Publicity
66. Advertising contributes to:
- (A) Economic growth of society
  - (B) Power of marketing firms
  - (C) National Integration
  - (D) None of the above
67. Advertising is done on a:
- (A) Limited scale
  - (B) Mass scale
  - (C) Corporate level
  - (D) Societal level
68. ABC stands for:
- (A) Audit Bureau of circulation
  - (B) Advertising Bureau of circulations
  - (C) American Bureau of circulation
  - (D) African Bureau of circulation

69. NBC stands for:
- (A) National Business Centre
  - (B) National Broadcasting Company
  - (C) National Broadcasting Centre
  - (D) National Building Code
70. Copywriters are similar to:
- (A) Technical editor
  - (B) Technical writer
  - (C) Creative editor
  - (D) Artist
71. Advertising can be used to sell:
- (A) Product
  - (B) Services
  - (C) Ideas
  - (D) All of the above
72. The medium on which U.S advertisers spend the most money each year is:
- (A) Radio
  - (B) Magazines
  - (C) Newspaper
  - (D) Television

73. Newspaper advertising strength:
- (A) Audience in appropriate mental frame
  - (B) Mass audience coverage
  - (C) Flexibility
  - (D) All of the above
74. What are the elite qualities of advertising?
- (A) Consumer view advertised product as standard and legitimate
  - (B) Advertising is expressive allowing the dramatization of product
  - (C) Advertising can be used to build up a long term image for a product
  - (D) Can reach masses of geographically dispersed buyer at low cost exposure
75. Which one is an elaborate booklet usually bound with the special cover?
- (A) Leaflet
  - (B) Brochure
  - (C) Pamphlet
  - (D) Hoarding
76. Segmentation of market on the basis of age, gender, income:
- (A) Psychographic segmentation
  - (B) Physical segmentation
  - (C) Demographic segmentation
  - (D) Target segmentation



77. Segmentation of market based on location, size, population is called:
- (A) Demographic segmentation
  - (B) Psychographic segmentation
  - (C) Geographic segmentation
  - (D) None of the above
78. Market segmentation is:
- (A) Divide of market
  - (B) Undivided of market
  - (C) Promotion of market
  - (D) None of the above
79. Importance of IMC:
- (A) Consistent delivery of message
  - (B) Motivation
  - (C) Team Spirit
  - (D) All of the above
80. Marketing mix is a combination of:
- (A) Advertising, sales promotion, personal selling, publicity, public relation
  - (B) Advertising, channel, public, marketing
  - (C) Public, marketing, advertising, management
  - (D) Publicity, management, channel, marketing

81. The act aims at protecting the best interest of the consumer:
- (A) Consumer protection Act
  - (B) Indian copyright Act
  - (C) Trademark Act
  - (D) Drug Control Act
82. Indian copyright act:
- (A) 1953
  - (B) 1957
  - (C) 1959
  - (D) 1967
83. Advertising and publicity is:
- (A) Same
  - (B) Different
  - (C) Partial same
  - (D) None of the above
84. Limitations of advertising include:
- (A) Lower cost
  - (B) Quick turnover
  - (C) Misrepresentation of facts
  - (D) Creation of goodwill

85. Importance of advertising are:
- (A) Increase sale
  - (B) Steady demand
  - (C) Lower cost
  - (D) All of the above
86. Functions of advertising:
- (A) Communication with consumers
  - (B) Persuasion
  - (C) Stimulate demand
  - (D) All of the above
87. When the whole world is covered for the advertisement then it is called:
- (A) National advertising
  - (B) Local advertising
  - (C) Global advertising
  - (D) Mass advertising
88. Communication barrier is:
- (A) Free flow of communication
  - (B) Not a free flow of communication
  - (C) Both (A) and (B)
  - (D) All of the above

89. SMCRFN stands for:
- (A) Source, machine, channel, reference, feedback, noise
  - (B) Source, message, channel, receiver, feedback, noise
  - (C) Sender, machine, control, reference, feedback, noise
  - (D) Sender, message, control, reference, feedback, noise
90. 5 M's of advertising includes:
- (A) Mission
  - (B) Money
  - (C) Message
  - (D) All of the above
91. Scope of advertising:
- (A) To inform
  - (B) To influence
  - (C) To remind
  - (D) All of the above
92. Which one is not a component of communication process?
- (A) Sender
  - (B) Receiver
  - (C) Product
  - (D) Feedback

93. Which one is not correct?
- (A) Advertising is a paid form
  - (B) Advertising is a non-personal presentation
  - (C) Advertising is a personal presentation
  - (D) All of the above
94. Which one is not a marketing tool?
- (A) Advertising
  - (B) Publicity
  - (C) Management
  - (D) Direct selling
95. Copywriting is related with:
- (A) Price
  - (B) Promotion
  - (C) Place
  - (D) Product
96. Sponsorship belongs to the promotional tool to:
- (A) Marketing
  - (B) Management
  - (C) HR
  - (D) Finance

97. Advertising is affected by which forces?
- (A) Economic
  - (B) Social
  - (C) Technology
  - (D) All of the above
98. AIDA stands for:
- (A) Accessible, Interest, Desire, Attention
  - (B) Attention, Interest, Desire, Action
  - (C) Action, Income, Deserves, Attention
  - (D) Action, Interest, Desire, Affection
99. Advertising is any paid form of non-personal presentation of Ideas goods or services by an identified sponsor:
- (A) According to American Marketing Association
  - (B) According to British Marketing Association
  - (C) According to wheeler
  - (D) According to Miller
100. What is advertising?
- (A) Publicity
  - (B) Sales promotion
  - (C) Paid promotion
  - (D) All of the above

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## **Rough Work / रफ कार्य**

**DO NOT OPEN THE QUESTION BOOKLET UNTIL ASKED TO DO SO**

1. Examinee should enter his / her roll number, subject and Question Booklet Series correctly in the O.M.R. sheet, the examinee will be responsible for the error he / she has made.
  2. **This Question Booklet contains 200 questions, which is divided into 2 sections. Kindly attempt any 75 questions from section 1<sup>st</sup> and any 75 questions from section 2<sup>nd</sup>. In this way examinee has to attempt only 150 questions in total. Every question has 4 options and only one of them is correct. The answer which seems correct to you, darken that option number in your Answer Booklet (O.M.R ANSWER SHEET) completely with black or blue ball point pen. If any examinee will mark more than one answer of a particular question, then the answer will be marked as wrong.**
  3. Every question has same marks. Every question you attempt correctly, marks will be given according to that.
  4. Every answer should be marked only on Answer Booklet (O.M.R ANSWER SHEET). Answer marked anywhere else other than the determined place will not be considered valid.
  5. Please read all the instructions carefully before attempting anything on Answer Booklet(O.M.R ANSWER SHEET).
  6. After completion of examination, please hand over the O.M.R. SHEET to the Examiner before leaving the examination room.
  7. There is no negative marking.
- Note:** On opening the question booklet, first check that all the pages of the question booklet are printed properly in case there is an issue please ask the examiner to change the booklet of same series and get another one.