



**WAVOO WAJEEHA WOMEN'S COLLEGE**  
OF ARTS AND SCIENCE, KAYALPATNAM  
(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)  
Run by Wavoo SAR Educational Trust  
(Minority Institution)



## **DEPARTMENT OF MATHEMATICS**

### **BRIDGE COURSE REPORT**

**(2021-2022)**



WAVOO WAJEEHA WOMEN'S COLLEGE OF ARTS AND SCIENCE,  
KAYALPATNAM-628204

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Department of Mathematics

Syllabus For Bridge Course (2021-2022)

**Unit – I**

**1 Hr**

Polynomial – System of linear equations with two unknown x&y – Quadratic Polynomials – Relation Between roots and Coefficient – Square root of a polynomial – Binomial theorem – Matrices and Determinant.

**Unit – II**

**1 Hr**

Differentiation – Basic Formulas – Product Rule – Quotient rule –Derivative of a composite function,

**Unit – III**

**1 Hr**

Integration – Basic Formulas – parametric functions – Definite Integrals

**Unit – IV**

**1 Hr**

Reasoning – Coding – Mensuration problems



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**Bridge Course Question Paper**

**Class: I B.Sc., Mathematics**

**Total: 20 Marks**

1. If  $a^*b = 2a-3b+ab$ , then  $3^*5+5^*3$  is equal to  
a) 22      b) 24      c) 26      d) 28
2. If  $x = -2/3$ , then  $9x^2-3x-11$  is equal to  
a) -13      b) 13      c) -5      d) -17
3. Find the product of two consecutive numbers where four times the first number is 10 more than thrice the second number.  
a) 210      b) 156      c) 182      d) 306
4. If  $-4x + 5y$  is subtracted from  $3x + 2y$  then the answer will be  
a)  $3x + 6y$       b)  $2x + 5y$       c)  $x - 3y$       d)  $x + 3y$
5. If  $a = 20$ ,  $b = 35$  and  $c = 5$  then  $(4a + b)/c$  is  
a) 23      b) 115      c) 53      d) 43
6. What is the value of  $d/dx (\sin x^3 \cos x^2)$ ?  
a)  $3x^2 \cos x^2 \cos x^3 + 2x \sin x^3 \sin x^2$       b)  $3x^2 \cos x^2 \cos x^3 - 2x \sin x^3 \sin x^2$   
c)  $2x \cos x^2 \cos x^3 - 2x \sin x^3 \sin x^2$       d)  $2x \cos x^2 \cos x^3 + 3x^2 \sin x^3 \sin x^2$
7. What is the value of  $\ln 3/x$ ?  
a)  $2/x^3$       b)  $-3/x^3$       c)  $-9/x^3$       d)  $9/x^3$
8. What is the value of  $d/dx(\cos^2 x \tan x)$  at  $x = 1$ ?  
a) -1      b) 0      c) -2      d) 1
9. Find the derivative of  $e^{x^2}$ .  
a)  $e^{x^2}$       b)  $2x$       c)  $2e^{x^2}$       d)  $2xe^{x^2}$
10. Differentiate  $\sin(3x+5)$   
a)  $\cos(3x+5)$       b)  $3\cos(3x+5)$       c)  $\cosec(3x+5)$       d)  $3\cosec(3x+5)$
11.  $\int \frac{\sin x}{\cos^2 x} dx$   
a)  $\sec x + C$       b)  $-\sec x + C$       c)  $\cosec x + C$       d)  $-\cosec x + C$

$$12. \int \frac{10x^3 - 4}{x^5} dx$$

a)  $\frac{5}{2}x^4 + x^{-4} + C$    b)  $-10x + \frac{1}{x^4} + C$    C)  $-\frac{10}{3x^3} + \frac{2}{3x^6} + C$    d) none

$$13. \int x \sin x dx$$

a)  $\cos x + \sin x + C$    b)  $\sin x + C$    c)  $-x \cos x + \sin x + C$    d)  $\tan x + C$

$$14. \int \frac{1}{\sin^2 x} dx$$

a)  $\tan x + C$    b)  $-\cot x + C$    c)  $\operatorname{cosec} x + C$    d)  $\sin x + C$

$$15. \int x^{11} dx$$

a)  $\frac{x^{12}}{12} + C$    b)  $\frac{x^{10}}{10} + C$    C)  $-\frac{x^{12}}{12} + C$    d)  $x^{12} + C$

16. What number should come next? 36, 34, 30, 28, 24, ...

a) 20   b) 22   c) 23   d) 26

17. Complete the series 1, 3, 6, 10, 15, \_\_\_\_.

a) 31   b) 21   c) 20   d) 30

18. Find the odd man out: 9, 18, 27, 38, 45, 54, 63.

a) 45   b) 63   c) 27   d) 38

19. Find the odd man out 3, 5, 11, 14, 17, 21

a) 21   b) 17   c) 14   d) 3

20. What number should come next? 8, 22, 8, 28, 8, ...

a) 9   b) 29   c) 32   d) 34



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**Time Table – Bridge Course (2021-22)**

<b>Date</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
08/09/2021	Orientation				
09/09/2021	Eng	Eng	Eng	Algebra	Differentiation
13/09/2021	Eng	Eng	Eng	Integration	Algebra
14/09/2021	Eng	Eng	Eng	Reasoning	Integration
15/09/2021	Eng	Eng	Eng	Reasoning	Differentiation

**STAFF DETAILS**

<b>S.No</b>	<b>Topics Covered</b>	<b>Staff Handling</b>	<b>Signature</b>
1	UNIT - I - Algebra	Miss.K.Kalaivani	
2	UNIT - II - Differentiation	Mrs.A.Poongothai	
3	UNIT - III - Integration	Mrs.K.Anita Blessie Rani	
4	UNIT - IV - Reasoning	Miss.K.Kalaivani	

**HOD** 1/c

**PRINCIPAL**

