Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA ENGINEERING – SEMESTER – 2(C2D) • EXAMINATION – SUMMER - 2018

Subject Code: C320003 Date: 23-May-2018

Subject Name: ADVANCED MATHEMATICS(GROUP-2)

Time:10:30 AM TO 12:00 PM Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumption wherever necessary.
3. Each question is of 1 mark.
4. Use of SIMPLE CALCULATOR is permissible. (Scientific/Higher Version not allowed)
5. English version is authentic.

No. Question Text and Option. પ્રશ્ન અને વિકલ્પો.

The slope of line $2x + y - 8 = 0$ is _____.

1. A. 2 B. -2 C. $\frac{1}{2}$ D. $\frac{-1}{2}$

રેખા $2x + y - 8 = 0$ નો ઢાળ _____ છે.

૧. A. 2 B. -2 C. $\frac{1}{2}$ D. $\frac{-1}{2}$

X – intercepts of line $2x + 3y - 4 = 0$ is _____.

2. A. 2 B. -2 C. $\frac{1}{2}$ D. $\frac{-1}{2}$

રેખા $2x + 3y - 4 = 0$ નો X − અંત:ખંડ _____છે.

૨. A. 2 B. -2 C. $\frac{1}{2}$ D. $\frac{-1}{2}$

The centre of the circle $x^2 + y^2 = 25$ _____.

3. A. (0,5) B. (0,0) C. (5,5) D. (5,0)

વર્તુળ $x^2 + y^2 = 25$ નું કેન્દ્ર _____ છે.

૩. A. (0,5) B. (0,0) C. (5,5) D. (5,0)

The distance between the point (1,3) and (0,-4) is _____

4. A. $2\sqrt{5}$ B. $5\sqrt{2}$ C. $4\sqrt{2}$ D. $3\sqrt{2}$

(1,3) અને (0,-4) વચ્ચેનું અંતર _____ છે.

૪. A. $2\sqrt{5}$ B. $5\sqrt{2}$ C. $4\sqrt{2}$ D. $3\sqrt{2}$

The centre of the circle $x^2 + y^2 + 3x - 4y - 4 = 0$ is _____.

5. A. $\left(-\frac{3}{2}, 2\right)$ B. $\left(\frac{3}{2}, -2\right)$

C. $\left(-\frac{3}{2},-2\right)$ D. $\left(\frac{3}{2},2\right)$

વર્તુળ $x^2+y^2+3x-4y-4=0$ નો ઢાળ _____ છે.

૫. A. $\left(-\frac{3}{2},2\right)$ B. $\left(\frac{3}{2},-2\right)$

C. $\left(-\frac{3}{2},-2\right)$ D. $\left(\frac{3}{2},2\right)$

Slope of the line passing through the point (8,5) and (1,-2) is _____.

6. A. 1 B. $\frac{8}{7}$

C. 0 D. -8

બિંદુઓ (8,5) અને (1,-2) માથી પસાર થતી રેખા નો ઢાળ _____ છે.

૬. A. 1 B. $\frac{8}{7}$

C. 0 D. -8

The co-ordinates of mid-point of $\overline{AB}$ where A(1,3) and B(5,7) are _____

7. A. (3,5) B. (5,3)

C. (3,3) D. (5,5)

જો A(1,3) અને B(5,7) હોય તો મધ્યબિંદુ $\overline{AB}$ ના યામ _____ છે

૭. A. (3,5) B. (5,3)

C. (3,3) D. (5,5)

If $d[\ (9,8),(x,4)]=5$ then value of x are _____.

8.

A. 6 and 12 B. 9 and 4

C. -6 and 12 D. 8 and 2

જો $d[\ (9,8),(x,4)]=5$ તો x ની કિમંત _____ છે.

૮.

A. 6 અને 12 B. 9 અને 4

C. -6 અને 12 D. 8 અને 2

The angle between the st. lines $x+y=0\ and\ x-y=0\ is$ _____.

9. A. 60° B. 30°

C. 0° D. 90°

સુરેખા $x+y=0$ અને $x-y=0$ વચ્ચે નો ખૂણો _____ છે.

૯. A. 60° B. 30°

C. 0° D. 90°

If the lines $kx-y+7=0$ and $5x+y+k=0$ are mutually perpendicular, then k =_____.

10. A. 5 B. -5

C. $\frac{1}{5}$ D. $\frac{-1}{5}$

રેખાઓ $kx-y+7=0$ અને $5x+y+k=0$ પરસ્પર લંબ છે તો k =_____થાય.

૧૦. A. 5 B. -5

C. $\frac{1}{5}$ D. $\frac{-1}{5}$

If two straight lines $l_1 and\ l_2$ are perpendicular to each other then slope $m_1 * m_2$ =

11. _____.

A. 1 B. -1

C. 0 D. 2

બે રેખાઓ l_1અને l_2 પરસ્પર લંબ છે તો તેમનો ઢાળ $m_1 * m_2$ = _____થાયછ.

૧૧. A. 1 B. -1
C. 0 D. 2

If slope of line $x + ky + 1 = 0$ is $\frac{-2}{3}$ then k =_____.

12. A. $\frac{3}{2}$ B. $\frac{-3}{2}$
C. $\frac{-2}{3}$ D. $\frac{2}{3}$

રેખા $x + ky + 1 = 0$ નો ઢાળ $\frac{-2}{3}$ તો k =_____.

૧૨. A. $\frac{3}{2}$ B. $\frac{-3}{2}$
C. $\frac{-2}{3}$ D. $\frac{2}{3}$

Equation of circle whose centre is (0,0) and radius 3 is _____.

13. A. $x^2 + y^2 = 9$ B. $x^2 + y^2 = 3$
C. $x^2 + y^2+3 = 0$ D. $x^2 + y^2+9 = 0$

જેનું. કેન્દ્ર (0, 0) અને ત્રિજ્યા 3 હોય તેવા વર્તુળ નું સમીકરણ _____ છે.

૧૩. A. $x^2 + y^2 = 9$ B. $x^2 + y^2 = 3$
C. $x^2 + y^2+3 = 0$ D. $x^2 + y^2+9 = 0$

The equation of a normal at (0,5) to the circle $x^2 + y^2 = 25$ is _____.

14. A. $x = 0$ B. $y = 0$
C. $x = 5$ D. $y = 5$

વર્તુળ $x^2 + y^2 = 25$ પરના (0,5) બિંદુ આગળના સ્પર્શકનું સમીકરણ_____ છે.

૧૪. A. $x = 0$ B. $y = 0$
C. $x = 5$ D. $y = 5$

$\lim_{x\to 0}(\sin^2\theta + \cos^2\theta)$ = _____.

15. A. 0 B. 1
C. -1 D. 5

$\lim_{x\to 0}(\sin^2\theta + \cos^2\theta)$ = _____.

૧૫. A. 0 B. 1
C. -1 D. 5

If $f(x) = x^3 - 1$,then $f(2) + f(-3)$ = _____.

16. A. 35 B. -21
C. 28 D. None of these

જો $f(x) = x^3 - 1$, તો $f(2) + f(-3)$ = _____.

૧૬. A. 35 B. -21
C. 28 D. એક પણ નહીં

If $f(x) = \log x$,then $f\left(\frac{x}{y}\right)$ = _____.

17. A. $f(x) * f(y)$ B. $f(x) + f(y)$
C. $f(x) - f(y)$ D. $f(x) \div f(y)$

જો $f(x) = \log x$, તો $f\left(\frac{x}{y}\right)$ = _____.

૧૭. A. $f(x) * f(y)$ B. $f(x) + f(y)$
C. $f(x) - f(y)$ D. $f(x) \div f(y)$

If $f(x) = \cos x$ then $f\left(\frac{3\pi}{2} - x\right)$ = _____.

18. A. $-\sin x$ B. $\sin x$
C. $\cos x$ D. $-\cos x$

૧૮. જો $f(x) = \cos x$ તો $f\left(\frac{3\pi}{2} - x\right)$ = _____.

A. $-\sin x$ B. $\sin x$

C. $\cos x$ D. $-\cos x$

If $f(x) = x + 1$and $g(x) = x^2 - 1$, $then\ fog(x) =$ _____.

19. A. $x^2 - 1$ B. $x^2 + 1$
C. x^2 D. None of these

જો $f(x) = x + 1$ અને $g(x) = x^2 - 1$ તો $fog(x) =$ _____.

૧૯. A. $x^2 - 1$ B. $x^2 + 1$
C. x^2 D. None of these

$x * \sin x$ is an _____ function.

20. A. Odd B. Even
C. Constant D. None of these

$x * \sin x$ એ _____ વિધેય છે.

૨૦. A. એકી B. બેકી
C. તટસ્થ D. એક પણ નહીં

$\lim_{x\to 0} \frac{x^2+x+1}{x+1}$ = _____.

21. A. 1 B. 0
C. Does not exit D. $\frac{3}{2}$

$\lim_{x\to 0} \frac{x^2+x+1}{x+1}$ = _____.

૨૧. A. 1 B. 0
C. શક્ય નથી D. $\frac{3}{2}$

$\lim_{x\to 3} \frac{x^3-27}{x-3}$ = _____.

22. A. 4 B. 12
C. 27 D. 0

$\lim_{x\to 3} \frac{x^3-27}{x-3}$ = _____.

૨૨. A. 4 B. 12
C. 27 D. 0

$\lim_{x\to 0} \frac{3^x - 4^x}{x} =$ _____.

23. A. $\log_e \frac{4}{3}$ B. $\log_e \frac{3}{4}$
C. $\log_e 12$ D. 0

$\lim_{x\to 0} \frac{3^x - 4^x}{x} =$ _____.

૨૩. A. $\log_e \frac{4}{3}$ B. $\log_e \frac{3}{4}$
C. $\log_e 12$ D. 0

$\lim_{x\to 0}(1 - x)^{\frac{1}{x}}$ =_____.

24. A. 0 B. e
C. $\frac{1}{e}$ D. 0

$\lim_{x\to 0}(1 - x)^{\frac{1}{x}}$ =_____.

૨૪. A. 0 B. e
C. $\frac{1}{e}$ D. 0

$\lim_{x\to 2} \frac{x^3+5}{5x+3}$ = _____.

25. A. $\frac{13}{7}$ B. 1

C. $\frac{3}{4}$ D. $\frac{7}{3}$

$\lim_{x\to 2}\frac{x^3+5}{5x+3}$ = _____.

૨૫. A. $\frac{13}{7}$ B. 1

C. $\frac{3}{4}$ D. $\frac{7}{3}$

$\lim_{\theta\to 0}\frac{\sin\theta}{\theta}$ = _____.

26. A. 0 B. 1

C. 2 D. None of these

$\lim_{\theta\to 0}\frac{\sin\theta}{\theta}$ = _____.

૨૬. A. 0 B. 1

C. 2 D. એક પણ નહીં

$\frac{d}{dx}(\sec^2\theta-\tan^2\theta)$ = _____.

27. A. 1 B. 0

C. -1 D. None of these

$\frac{d}{dx}(\sec^2\theta-\tan^2\theta)$ = _____.

૨૭. A. 1 B. 0

C. -1 D. એક પણ નહીં

$\frac{d}{dx}(e^{-\log x})$ = _____.

28. A. $\frac{1}{x^2}$ B. $\frac{1}{x}$

C. $\frac{-1}{x}$ D. $\frac{-1}{x^2}$

$\frac{d}{dx}(e^{-\log x})$ = _____.

૨૮. A. $\frac{1}{x^2}$ B. $\frac{1}{x}$

C. $\frac{-1}{x}$ D. $\frac{-1}{x^2}$

If $y=\log_2 x$, then $\frac{dy}{dx}=$ _____.

29. A. $\frac{y}{x}$ B. x

C. $\frac{-1}{x}$ D. $\frac{1}{x\log 2}$

જો $y=\log_2 x$, તો $\frac{dy}{dx}=$ _____.

૨૯. A. $\frac{y}{x}$ B. x

C. $\frac{-1}{x}$ D. $\frac{1}{x\log 2}$

$\frac{d}{dx}(\cot x)$ = _____.

30. A. $-\text{cosec}^2 x$ B. $\text{cosec}\,x\cot x$

C. $\sec^2 x$ D. $\sec x\tan x$

$\frac{d}{dx}(\cot x)$ = _____.

૩૦. A. $-\text{cosec}^2 x$ B. $\text{cosec}\,x\cot x$

C. $\sec^2 x$ D. $\sec x\tan x$

If $f(x)-g(x)$ *is constant , then* $g'(x)=$ _____.

31. A. $f(x)$ B. $f'(x)$

C. $-f'(x)$ D. $f'(x)+k$

૩૧. જો $f(x)-g(x)$ નટસ્થ હોય તો , $g'(x)=$ _____.

A. $f(x)$ B. $f'(x)$
C. $-f'(x)$ D. $f'(x)+k$

32. If $f(x)=\frac{x}{\cos x}$ then $f'(0)=$ _____.
A. 0 B. 1
C. 2 D. None of these

૩૨. જો $f(x)=\frac{x}{\cos x}$ તો $f'(0)=$ _____.
A. 0 B. 1
C. 2 D. એક પણ નહીં

33. $\frac{d}{dx}(3\sin x-4\sin^3 x)=$ _____.
A. $-\cos 3x$ B. $3\cos 3x$
C. $3\cos 3x-4\cos^3 x$ D. $\sin 3x$

૩૩. $\frac{d}{dx}(3\sin x-4\sin^3 x)=$ _____.
A. $-\cos 3x$ B. $3\cos 3x$
C. $3\cos 3x-4\cos^3 x$ D. $\sin 3x$

34. $\frac{d}{dx}(\log\cos x)=$ _____.
A. $\tan x$ B. $\cot x$
C. $-\tan x$ B. $-\cot x$

૩૪. $\frac{d}{dx}(\log\cos x)=$ _____.
A. $\tan x$ B. $\cot x$
C. $-\tan x$ B. $-\cot x$

35. If $x=\sec\theta+\tan\theta$ *and* $y=\sec\theta-\tan\theta$, *then* $\frac{dy}{dx}=$ _____.
A. $\frac{-y}{x}$ B. $\frac{-1}{x^2}$
C. $\frac{x}{y}$ D. 0

૩૫. જો $x=\sec\theta+\tan\theta$ અને $y=\sec\theta-\tan\theta$, તો $\frac{dy}{dx}=$ _____.
A. $\frac{-y}{x}$ B. $\frac{-1}{x^2}$
C. $\frac{x}{y}$ D. 0

36. $\frac{d}{dx}(x^x)=$ _____.
A. $x-\log x$ B. $x+\log x$
C. $x^x(1+\log x)$ D. $x*x^{x-1}$

૩૬. $\frac{d}{dx}(x^x)=$ _____.
A. $x-\log x$ B. $x+\log x$
C. $x^x(1+\log x)$ D. $x*x^{x-1}$

37. $\frac{d}{dx}(xe^x)=$ _____.
A. $e^{-x}(1-x)$ B. $e^x(1+x)$
C. $-xe^x$ D. $-xe^x$

૩૭. $\frac{d}{dx}(xe^x)=$ _____.
A. $e^{-x}(1-x)$ B. $e^x(1+x)$
C. $-xe^x$ D. $-xe^x$

38. $\frac{d}{dx}\tan^{-1}(\frac{x}{a})=$ _____.

A. $\frac{1}{x^2+a^2}$ B. $\frac{x}{x^2+a^2}$

C. $\frac{a^2}{x^2+a^2}$ D. $\frac{a}{x^2+a^2}$

$\frac{d}{dx}\tan^{-1}(\frac{x}{a})$ = _____.

૩૮. A. $\frac{1}{x^2+a^2}$ B. $\frac{x}{x^2+a^2}$

C. $\frac{a^2}{x^2+a^2}$ D. $\frac{a}{x^2+a^2}$

$\frac{d}{dx}2^{\log_2 x}$ = _____.

39. A. $\log_2 x$ B. $2^{\log_2 x}$

C. $\frac{1}{x}$ D. 1

$\frac{d}{dx}2^{\log_2 x}$ = _____.

૩૯. A. $\log_2 x$ B. $2^{\log_2 x}$

C. $\frac{1}{x}$ D. 1

If $x = \sin\theta$ and $y = \cos\theta$ then $\frac{dy}{dx}$ = _____.

40. A. $-\tan\theta$ B. $\tan\theta$

C. $\cot\theta$ D. $-\cot\theta$

જો $x = \sin\theta$ અને $y = \cos\theta$ તો $\frac{dy}{dx}$ = _____.

૪૦. A. $-\tan\theta$ B. $\tan\theta$

C. $\cot\theta$ D. $-\cot\theta$

Which function's derivative or integration is same?

41. A. e^x B. a^x

C. $\log x$ D. None of these

કયાં વિધેય નું સંકલન અને વિકલન સરખું થાય?

૪૧. A. e^x B. a^x

C. $\log x$ D. એક પણ નહીં

If $xy = 1$ then $\frac{dy}{dx}$ = _____.

42. A. $\frac{y}{x}$ B. $\frac{x}{y}$

C. $\frac{-1}{x^2}$ D. $\frac{-y}{x}$

જો $xy = 1$ તો $\frac{dy}{dx}$ = _____.

૪૨. A. $\frac{y}{x}$ B. $\frac{x}{y}$

C. $\frac{-1}{x^2}$ D. $\frac{-y}{x}$

If $y = \tan^{-1}(\tan\frac{x}{2})$ *then* $\frac{dy}{dx}$ = _____.

43. A. $\frac{x}{2}$ B. $\frac{1}{1+(\frac{x}{2})^2}$

C. $\frac{1}{2}$ D. 0

જો $y = \tan^{-1}(\tan\frac{x}{2})$ તો $\frac{dy}{dx}$ = _____.

૪૩. A. $\frac{x}{2}$ B. $\frac{1}{1+(\frac{x}{2})^2}$

C. $\frac{1}{2}$ D. 0

If $f(x) = \cos x \; then \; f'(\frac{\pi}{2})$ =_____-.

44. A. 1 B. -1
C. 0 D. $\frac{\pi}{2}$

જો $f(x) = \cos x$ તો $f'(\frac{\pi}{2})$ =_____-.

૪૪. A. 1 B. -1
C. 0 D. $\frac{\pi}{2}$

$\int f(x)dx = \log|\sin x| + c \; then \; f(x) =$ _____.

45. A. $\frac{1}{\sin x}$ B. $\frac{\cos x}{\sin x}$
C. $\log(\cos x)$ D. None of these

$\int f(x)dx = \log|\sin x| + c$ તો $f(x) =$ _____.

૪૫. A. $\frac{1}{\sin x}$ B. $\frac{\cos x}{\sin x}$
C. $\log(\cos x)$ D. એક પણ નહીં

$\int \frac{1}{x} dx =$ _____ $+ C$

46. A. $\log|x|$ B. $-\log x$
C. $\frac{-1}{x^2}$ D. $\frac{1}{x^2}$

$\int \frac{1}{x} dx =$ _____ $+ C$

૪૬. A. $\log|x|$ B. $-\log x$
C. $\frac{-1}{x^2}$ D. $\frac{1}{x^2}$

$\int e^{x \log a} dx =$ _____ $+ c$

47. A. $e^{x \log a}$ B. a^x
C. $\frac{a^x}{\log a}$ D. $\log a$

$\int e^{x \log a} dx =$ _____ $+ c$

૪૭. A. $e^{x \log a}$ B. a^x
C. $\frac{a^x}{\log a}$ D. $\log a$

$\int \frac{dx}{1 + x^2} =$ _____ $+ c$

48. A. $\tan^{-1} x$ B. $\sin^{-1} x$
C. $\frac{1}{2}\tan x$ D. None of these

$\int \frac{dx}{1 + x^2} =$ _____ $+ c$

૪૮. A. $\tan^{-1} x$ B. $\sin^{-1} x$
C. $\frac{1}{2}\tan x$ D. એક પણ નહીં

$\int \frac{1}{a^2 - x^2} dx =$ _____ $+ c$

49. A. $\frac{1}{2a} \log \left|\frac{x+a}{x-a}\right|$ B. $\frac{1}{2} \log \left|\frac{x+a}{x-a}\right|$
C. $\frac{1}{2a} \log \left|\frac{a-x}{a+x}\right|$ D. None of these

૪૯. $\int \frac{1}{a^2 - x^2} dx =$ _____ $+ c$

A. $\frac{1}{2a}\log\left|\frac{x+a}{x-a}\right|$ B. $\frac{1}{2}\log\left|\frac{x+a}{x-a}\right|$

C. $\frac{1}{2a}\log\left|\frac{a-x}{a+x}\right|$ D. એક પણ નહીં

$\int_{-1}^{1} \sin^3 x \cos^4 x \, dx =$ _____.

50. A. 1 B. -1

C. 0 D. $\frac{1}{2}$

$\int_{-1}^{1} \sin^3 x \cos^4 x \, dx =$ _____.

૫૦. A. 1 B. -1

C. 0 D. $\frac{1}{2}$

$\int_1^e \frac{dx}{x}$ = _____.

51. A. 1 B. 0

C. e D. e-1

$\int_1^e \frac{dx}{x}$ = _____.

૫૧. A. 1 B. 0

C. e D. e-1

Area covered by the curve$x^2 + y^2 = 9$ is_____.

52. A. 9π B. 4π

C. 81π D. 9

વક્ર $x^2 + y^2 = 9$ થી ઘેરાયેલા પ્રદેશ નું ક્ષેત્રફળ_____છે.

૫૨. A. 9π B. 4π

C. 81π D. 9

$\int_{-1}^{1}(x^2+1)dx$ =_____.

53. A. $\frac{8}{3}$ B. $\frac{3}{8}$

C. 0 D. None of these

$\int_{-1}^{1}(x^2+1)dx$ =_____.

૫૩. A. $\frac{8}{3}$ B. $\frac{3}{8}$

C. 0 D. એક પણ નહીં

$\int x^3 \, dx =$ _____ $+ c$

54. A. $3x^2$ B. $\frac{x^4}{4}$

C. x^4 D. $3x^4$

$\int x^3 \, dx =$ _____ $+ c$

૫૪. A. $3x^2$ B. $\frac{x^4}{4}$

C. x^4 D. $3x^4$

$\int \frac{1}{\sqrt{a^2-x^2}} dx =$ _____ $+ c$

55. A. $\frac{1}{a}\cos^{-1}(\frac{x}{a})$ B. $\cos^{-1}(\frac{x}{a})$

C. $\frac{1}{a}\sin^{-1}(\frac{x}{a})$ D. $\sin^{-1}(\frac{x}{a})$

૫૫. $\int \frac{1}{\sqrt{a^2-x^2}} dx =$ _____ $+ c$

A. $\frac{1}{a}\cos^{-1}(\frac{x}{a})$ B. $\cos^{-1}(\frac{x}{a})$

C. $\frac{1}{a}\sin^{-1}(\frac{x}{a})$ D. $\sin^{-1}(\frac{x}{a})$

56. $\int \tan x\, dx$

A. $\log|\sin x| + c$ B. $\log|\cos x|$+c

C. $\log|\sec x|$ + c D. $\log|\text{cosec}\, x| + c$

૫૬. $\int \tan x\, dx$

A. $\log|\sin x| + c$ B. $\log|\cos x|$+c

C. $\log|\sec x|$ + c D. $\log|\text{cosec}\, x| + c$

57. $\int e^x(\frac{1}{x} - \frac{1}{x^2})\, dx$

A. $\frac{e^x}{x}$ B. $\frac{e^x}{x^2}$

C. xe^x D. $(x-1)e^x$

૫૭. $\int e^x(\frac{1}{x} - \frac{1}{x^2})\, dx$

A. $\frac{e^x}{x}$ B. $\frac{e^x}{x^2}$

C. xe^x D. $(x-1)e^x$

58. $\int \log x\, dx$

A. $x\log x + c$ B. $x\log x - x$

C. $\log|\cos x|$ D. *none of these*

૫૮. $\int \log x\, dx$

A. $x\log x + c$ B. $x\log x - x$

C. $\log|\cos x|$ D. એક પણ નહીં

59. $\int_2^5 x^3\, dx =$ _____.

A. 609 B. $\frac{641}{4}$

C. $\frac{609}{4}$ D. None of these

૫૯. $\int_2^5 x^3\, dx =$ _____.

A. 609 B. $\frac{641}{4}$

C. $\frac{609}{4}$ D. એક પણ નહીં

60. $\int \cos(ax+b)dx =$ _____ $+ c$

A. $\sin(ax+b)$ B. $\frac{-\sin(ax+b)}{a}$

C. $\frac{\sin(ax+b)}{b}$ D. $\frac{\sin(ax+b)}{a}$

૬૦. $\int \cos(ax+b)dx =$ _____ $+ c$

A. $\sin(ax+b)$ B. $\frac{-\sin(ax+b)}{a}$

C. $\frac{\sin(ax+b)}{b}$ D. $\frac{\sin(ax+b)}{a}$

61. If $x_1, x_2, x_3 \ldots\ldots\ldots\ldots, x_n$, be n observation of ungrouped data then mean of observation $\bar{x}$ = _____.

A. $\frac{\sum x_i}{n}$ B. $\sum x_i$

C. $n\sum x_i$ D. $\frac{1}{2}\sum x_i$

અવર્ગીકૃત n અવલોકનો $x_1, x_2, x_3 \ldots\ldots\ldots\ldots, x_n,$ માટે મધ્યક $\bar{x}$ =_____છે.

૬૧. A. $\frac{\sum x_i}{n}$ B. $\sum x_i$

C. $n\sum x_i$ D. $\frac{1}{2}\sum x_i$

Mean of first five even number is _____.

62. A. 6 B. 10

C. 15 D. 30

પહેલા પાંચ બેકી સંખ્યા નો મધ્યક _____ છે.

૬૨. A. 6 A. 10

C. 15 C. 30

If mean of data 4,7,6,k,5,9 is 6 then k = _____.

63. A. 4 B. 6

C. 5 D. 9

જો અવલોકનો 4,7,6,k,5,9 નો મધ્યક 6 તો k = _____.

૬૩. A. 4 B. 6

C. 5 D. 9

If given data is 3, ,6, 5,7,3,8,10,3,14 then mode = _____.

64. A. 3 B. 2

C. 5 D. 7

અવલોકનો 3, ,6, 5,7,3,8,10,3,14 નો બહુલક _____છે.

૬૪. A. 3 B. 2

C. 5 D. 7

Formula of mean deviation from mean for ungrouped data = _____.

65. A. M.D. = $\frac{\sum f_i\,|x_i-\bar{x}|}{n}$ B. M.D. = = $\frac{\sum\,|x_i-\bar{x}|}{n}$

C. M.D. = $\frac{\sum f_i x_i}{n}$ D. M.D. = $\frac{\sum x_i}{n}$

અવર્ગીકૃત અવલોકનો માટે સરેરાશ વિચલન _____ છે

૬૫. A. M.D. = $\frac{\sum f_i\,|x_i-\bar{x}|}{n}$ B. M.D. = = $\frac{\sum\,|x_i-\bar{x}|}{n}$

C. M.D. = $\frac{\sum f_i x_i}{n}$ D. M.D. = $\frac{\sum x_i}{n}$

For the data 12, 10, 15,22,30,20,32,12,20 ,30 median is _____.

66. A. 25 B. 20

C. 30 D. 22

અવલોકનો 12, 10, 15,22,30,20,32,12,20 ,30 માટે મધ્યસ્થ _____છે.

૬૬. A. 25 B. 20

C. 30 D. 22

The mean value of first eight natural number is _____.

67. A. $\frac{9}{2}$ B. 30

C. 72 D. 16

પ્રથમ આઠ પ્રાકૃતિક સંખ્યા માટે નો મધ્યક _____છે

૬૭. A. $\frac{9}{2}$ B. 30

C. 72 D. 16

For some given data M = 13.2 and $\bar{x}$ = 15.3 then Z = _____.

68. A. 9 B. 8.5

C. 8.2 D. None of these

આપેલા અવલોકનો માટે M = 13.2 અને $\bar{x}$ = 15.3 thenજ Z = _____.

૬૮. A. 9 B. 8.5
C. 8.2 D. None of these

The range of the data 85,36,25,26,72,50 is _____.

69. A. 85 B. 25
C. 30 D. 60

અવલોકનો 85,36,25,26,72,50 નો વિસ્તાર _____છે .

૬૯. A. 85 B. 25
C. 30 D. 60

Standard deviation of 4,8,6,7,10 ,13 is _____.

70. A. 2.88 B. 2
C. 1.88 D. None of these

4,8,6,7,10 ,13નું પ્રમાણિત વિચલન _____ છે.

૭૦. A. 2.88 B. 2
C. 1.88 D. None of these

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