Objective Type Questions

Q.1: Encircle the correct one of the given answers in each item.

1. The series $\frac{a_0}{2} + \sum_{n=1}^{\infty} (a_n \text{ Cos } n x + b_n \text{ Sin } nx)$ is

   (a) Bionomial (b) Fourier
   (c) Arithmetic (d) Geometric

2. If a function $f(-x) = -f(x)$, then function is

   (a) even (b) odd
   (c) linear (d) constant

3. If a function $f(-x) = f(x)$, then function is

   (a) even (b) odd
   (c) linear (d) constant

4. In an odd function, the Fourier co- efficient a_0 is

   (a) zero (b) 1
   (c) -1 (d) 2

5. In an odd function, the Fourier co- efficient a_n is

   (a) zero (b) 1
   (c) -1 (d) 2

6. In an even function, the Fourier co- efficient b_n is

   (a) zero (b) 1
   (c) -1 (d) 2

7. The period of sin x is

   (a) π (b) 2π
   (c) $-\pi$ (d) -2π

8. The period of cos x is

   (a) π (b) 2π
   (c) $-\pi$ (d) -2π

9. If a function f(x) is periodic if $f(x) = f($----------$)$

   (a) $x \pm T$ (b) $\pm \frac{x}{T}$
   (c) $\pm x T$ (d) None of these

10. If function f(x) is even then $a_0 = \frac{1}{\pi} \int_{-\pi}^{\pi} f(x)\, dx$

(a) $\int_0^{\pi} f(x)\,dx$ (b) $\frac{2}{\pi}\int_{-\pi}^{\pi} f(x)\,dx$

(c) $\frac{2}{\pi}\int_0^{\pi} f(x)\,dx$ (d) $\frac{1}{\pi}\int_{-\pi}^{\pi} f(x)\,dx$

Answers

Q1.

1.	b	2.	b	3.	a	4.	a	5.	a
6.	a	7.	b	8.	b	9.	a	10.	c