

PDF FILES AVAILABLE IN MY WEBSITE - www.ravitestpapers.com

TEST ANSWERS AVAILABLE IN MY BLOG- www.ravitestpapers.in

MY YOUTUBE CHANNEL NAME- RAVI TEST PAPERS

JOIN MY PAID WHATSAPP GROUP 8056206308 FOR DPPS WITH ANSWERS

Questions: 25 Time: 01:00 hh:mm Marks: 75

- Q1.** Solve the following differential equation: **3 Marks**
$$\frac{dy}{dx} - \frac{y}{x} = 2x^2$$
- Q2.** Evaluate: **3 Marks**
$$\int \sin 4x \cos 3x \, dx.$$
- Q3.** Find the particular solution of the differential equation $x \frac{dy}{dx} + x \cos^2 \left(\frac{y}{x} \right) = y$; given that when $x=1, y = \frac{\pi}{4}$. **3 Marks**
- Q4.** Evaluate: $\int \cos 4x \cos 3x \, dx$ **3 Marks**
- Q5.** Find the particular solution of the differential equation $(y + 3x^2) \frac{dx}{dy} = x$, given that $y = 1$, when $x = 1$. **3 Marks**
- Q6.** Solve the following differential equation: **3 Marks**
$$(1 + e^{\frac{y}{x}})dy + e^{\frac{y}{x}} \left(1 - \frac{y}{x} \right) dx = 0$$
- Q7.** Evaluate: **3 Marks**
$$\int_0^{\frac{x}{2}} \frac{1}{1 + (\tan x)^{\frac{2}{3}}} dx$$
- Q8.** Evaluate: **3 Marks**
$$\int_0^{\frac{x}{4}} \frac{dx}{1 + \tan x}$$
- Q9.** Find: **3 Marks**
$$\int \frac{1}{\sqrt{x}(\sqrt{x}+1)(\sqrt{x}+2)} dx$$
- Q10.** Evaluate: **3 Marks**
$$\int \frac{\sin(x-\alpha)}{\sin(x+\alpha)} dx$$
- Q11.** Evaluate: **3 Marks**
$$\int \frac{1+x^2}{1+x^4} dx$$
- Q12.** Solve the following differential equation: **3 Marks**
$$(\tan^{-1} y - x)dy = (1 + y^2)dx$$
- Q13.** Solve the following differential equation: **3 Marks**
$$\sin x \frac{dy}{dx} + \cos xy = \cos x \sin^2 x$$
- Q14.** Solve the following differential equation: **3 Marks**
$$y(1 - x^2) \frac{dy}{dx} = x(1 + y^2).$$

JOIN 10TH & 12TH PAID WHATSAPP GROUP

1ST DEC 2025 TO FEB 2026

UPLOAD DAILY ONE SUBJECT FULL TEST PAPER

TEST GROUP FEES RS.1000 ONLY

ALL TEST PAPERS WITH ANSWERS UPLOAD IN YOUR WHATSAPP

FREE USERS CHECK ALL SAME PAPERS UPLOAD IN MY WEBSITES. YOU CAN DOWNLOAD AND PRACTICE

RAVI TEST PAPERS & NOTES

WHATSAPP – 8056206308

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in

- Q15.** Find the particular solution of the differential equation given by $x^2 \frac{dy}{dx} - xy = x^2 \cos^2 \left(\frac{y}{2x} \right)$, given that when $x = 1, y = \frac{\pi}{2}$. **3 Marks**
- Q16.** Find the general solution of the differential equation.
 $x \frac{dy}{dx} - y + x \sin \frac{y}{x} = 0$. **3 Marks**
- Q17.** Evaluate: $\int_0^{2\pi} \frac{dx}{1+e^{\sin x}}$ **3 Marks**
- Q18.** Evaluate: $\int_{-1}^2 |x^3 - x| dx$. **3 Marks**
- Q19.** Evaluate:
 $\int_0^{\frac{\pi}{2}} |\sin x - \cos x| dx$ **3 Marks**
- Q20.** Evaluate:
 $\int \frac{dx}{\sqrt{x^2 - 3x + 2}}$ **3 Marks**
- Q21.** Find the general solution of the differential equation $\frac{dy}{dx} = \frac{x^2 + y^2}{2xy}$. **3 Marks**
- Q22.** Evaluate:
 $\int_1^3 \frac{\sqrt{x}}{\sqrt{x} + \sqrt{4-x}} dx$ **3 Marks**
- Q23.** Evaluate:
 $\int x \log 2x dx$. **3 Marks**
- Q24.** Find:
 $\int \frac{x^2}{(x^2+4)(x^2+9)} dx$ **3 Marks**
- Q25.** Evaluate:
 $\int_0^{\frac{\pi}{2}} [\log(\sin x) - \log(2 \cos x)] dx$ **3 Marks**

JOIN 10TH & 12TH PAID WHATSAPP GROUP

1ST DEC 2025 TO FEB 2026

UPLOAD DAILY ONE SUBJECT FULL TEST PAPER

TEST GROUP FEES RS.1000 ONLY

ALL TEST PAPERS WITH ANSWERS UPLOAD IN YOUR WHATSAPP

FREE USERS CHECK ALL SAME PAPERS UPLOAD IN MY WEBSITES. YOU CAN DOWNLOAD AND PRACTICE

RAVI TEST PAPERS & NOTES

WHATSAPP – 8056206308

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in