

TH241235MDC

Reg. No.....

FYUG PROGRAMME EXAMINATIONS, NOVEMBER 2024**(2024 Admission Regular)****SEMESTER I – MDC (MATHEMATICS)****MT1MDC01B24 – MATHEMATICS FOR COMPETITIVE EXAMINATIONS - I****Time: 1 Hour****Maximum Mark: 35****PART A****I. Answer any ten questions. Each question carries 2 marks**

Q.No:	QUESTIONS	CO	LEVEL
1.	Identify the Co-primes (a). (4,5) (b). (5,10) (c). (3,6) (d). (3,9)	CO1	U
2.	Determine the HCF of 12 and 24 (a). 9 (b). 24 (c). 12 (d). 18	CO1	Ap
3.	Compute the value which will replace the question mark in the following equation? $755 - 50 = ? + 5$ (a). 705 (b). 695 (c). 700 (d). 715	CO1	Ap
4.	Rajeev's age after 15 years will be 5 times his age 5 years back. Determine Rajeev's present age? (a). 15 (b). 12 (c). 10 (d). 18	CO2	Ap
5.	Compute 12% of 5000 (a). 400 (b). 500 (c). 700 (d). 600	CO2	Ap
6.	A man buys an article for Rs.250 and sells it for Rs.310. Compute his gain percent. (a). 24% (b). 20% (c). 25% (d). 28%	CO2	Ap
7.	Estimate the time required for an amount of Rs. 450 to yield Rs. 81 as interest at a simple interest rate of 4.5% per annum. (a). 3.5 years (b). 4 years (c). 4.5 years (d). 5 years	CO3	U
8.	Estimate the amount if Rs. 4000 is invested at 10% per annum compound interest, compounded annually, for 2 years. (a). Rs 4840 (b). Rs. 4640 (c). Rs. 4500 (d). Rs.5100	CO3	U

9.	A and B together can finish a task in 12 days. A alone can finish it in 20 days. Determine the number of days B requires to finish the work alone. (a). 30 days (b). 24 days (c). 18 days (d). 15 days	CO4	Ap
10.	A car travels 60 km in 2 hours. Calculate the speed of the car? (a). 20 km/hr (b). 30 km/hr (c). 40 km/hr (d). 60 km/hr	CO4	Ap
11.	Identify the year that is not a leap year. (a). 700 (b). 800 (c). 1200 (d). 2000	CO3	U
12.	A cyclist travels at a speed of 15 km/hr. Calculate the distance traveled in 2 hours? (a) 20 km (b) 30 km (c) 7.5 km (d) 25 km	CO4	Ap

(10x2=20)

PART B

II. Answer any three questions in one paragraph. Each question carries 5 marks.

Q.No:	QUESTIONS	CO	LEVEL
13.	Determine whether the following numbers are prime 1. 241 2. 391	CO1	Ap
14.	A man's present age is two-fifths of the age of his mother. After 8 years, he will be one-half of the age of his mother. Calculate the present age of the mother.	CO2	Ap
15.	A certain sum of money doubles itself in 15 years. Estimate the rate of simple interest.	CO3	U
16.	Identify the day of the week that corresponds to the date 4th June, 2001.	CO3	U

(3x5=15)

CO : Course Outcomes Level : R – Remember, U – Understand, Ap- Apply, An- Analyze, E- Evaluate, C- Create