

SVD Government Degree College for Women, Nidadavole

B.Sc Honours Semester-I (Essentials) December- 2023

Please answer all the Questions.

(30 Questions

30 Marks)

- 1) which of the following is the point –slope form of the equation of a line []
a) $y = mx + b$ b) $y - y_1 = m(x - x_1)$ c) $ax + by = 1$ d) $Ax + By = c$
- 2) $\lim_{x \rightarrow 3} \frac{x^3 - 3^3}{x - 3}$
a) 24 b) 20 c) 25 d) 10
- 3) Two lines are said to be concurrent if they have common _____
- 4) $\int u(x)v(x) =$ _____
- 5) if $f(x) = e^{2x} + \frac{3}{x}$. then find $f'(x)$
- 6) Evaluate $\int 3^x 5^{-x} dx$
- 7) find the co-factors of the elements 2 and 6 of the matrix $\begin{pmatrix} 1 & 2 & 3 \\ 4 & 0 & 6 \\ -3 & 5 & 9 \end{pmatrix}$
- 8) Newton's first law is also known as _____ []
a) Law of rotation b) Law of displacement c) Law of inertia d) none of the above
- 9) An electromagnetic wave can be produced when charge is _____
a) Moving with constant velocity b) Moving in a circular orbit
c) Falling in an electric field d) Both (b) and (c)
- 10) Which of the following effect proves the wave nature of light []
a) Photo electric effect b) Compton effect c) Pair Production d) Polarization
- 11) Rate of change of momentum of particle is _____
- 12) Electric generators transformers are worked on the basis of _____
- 13) The branch of science which deals with properties of matter, energy and their relationship is ___
a) Physics b) Chemistry c) Mechanics d) Magnetism []
- 14) What aspect of physics is crucial for understanding the aerodynamics of vehicles? []
a) Thermodynamics b) Fluid Dynamics c) Electromagnetism d) Quantum mechanics

15) Number periods in the periodic table are []
a) 6 b) 7 c) 8 d) 5

16) Electrons are []
a) Positively charged b) Negatively charged c) Neutral d) None

17) Electronic configuration of chlorine is _____

18) What is modern periodic law ?

19) What is neutralization reaction?

20) Matching.

1) lead	()	a) Hg
2) Tin	()	b) Ag
3) Mercury	()	c) Sn
4) Silver	()	d) AU
5) Gold	()	e) Pb

21) sucrose is a monosaccharide True/False

22) Which is the following not a binary number []
a) 1101 b)1102 c)1001 d)0101

23)the base of binary number system is []
a) 2 b) 7 c) 10 d)16

24) the binary numbers 0 and 1 are also called []
a) Bytes b)Bits c)Kilobytes d) Decimal

25) IC stands for _____

26) What are numbers used in Digital Computes _____ and _____

27) the decimal number system consisting of 0 to 9 numbers (true/false)

28) 1 multiplied 0 equals to 0 (True/False)

29) Charles babbage introduced the concept of zero(0) (true/false)

30) OS Stands for?