

Allowed Time : 02.30 Hrs

Total Marks : 85

Instructions

- | | |
|---|--|
| 1 | All questions are of multiple choice type. Write down the correct answer in your answer sheet. |
| 2 | All question carry equal marks. |
| 3 | There is no negative marking against wrong answers. |
| 4 | In case of overwriting, Erasing, Modification of any answer, it will not be evaluated. |

How to answer a question :-

Question: What is the unit of Heat?
 (a) Celsius (b) Kelvin (c) Fahrenheit (d) Calorie

Answer should be written as

Answer: (d) Calorie

Questions for candidates

- | | |
|----|---|
| 1. | What is the name of an ideal- gas process in which no heat is transferred during process?
(a) Isochoric
(b) Isentropic
(c) Isothermal
(d) Adiabatic |
| 2. | Which of the following exhibit all three state of matter.
(a) Water
(b) wood
(c) Steel
(d) wool |
| 3. | Measure of Hotness or coldness is-
(a) Heat
(b) Water
(c) Temperature
(d) Entropy |
| 4. | Arbitrarily the value of triple point is taken as
(a) 0K
(b) 273.16°C
(c) 273.16K
(d) None of above |
| 5. | The foundation of centre lathe is called as
(a) Carriage
(b) Tray
(c) Bed
(d) None of above |
| 6. | First law of thermodynamics deals with conservation of-
(a) Energy
(b) Velocity
(c) Mass
(d) process |
| | In isothermal process which remains constant
(a) Temperature
(b) Heat |

	(c) Mass (d) Entropy
8.	Electromagnetic theory was given by (a) Faraday (b) Lenz (c) Fleming (d) Maxwell
9.	Four capacitors each of $4.5\mu\text{F}$ are connected in parallel. Which is equivalent value of their capacitance – (a) $1\mu\text{F}$ (b) $18\mu\text{F}$ (c) $8\mu\text{F}$ (d) $0.25\mu\text{F}$
10.	An MICROPHONE is like (a) Baluns (b) Auto transformer (c) Transducer (d) Rectifier
11.	Which gas found in marshy lands (a) Methane (b) Ethane (c) Hydrogen (d) carbon
12.	EMF generated in stator of synchronous motor called (a) Induced EMF (b) Front EMF (c) Back EMF (d) None of above
13.	Inverters are used (a) To Convert AC to DC (b) To Convert DC to AC (c) To Chop the Signals (d) To Minimize ripple contents in output
14.	How many diodes are used in Centre tapped Full Wave rectifier (a) 2 (b) 7 (c) 8 (d) 6
15.	Which does it represent <div data-bbox="324 1787 948 2040" data-label="Diagram"> <pre> graph LR Input -- "+" --> Sum(()) Sum --> AOL[A_OL] AOL --> Output Output --> Beta[beta] Beta -- "-" --> Sum </pre> </div>

- (a) Ideal negative feedback amplifier
- (b) Ideal positive feedback amplifier
- (c) Ideal null feedback amplifier
- (d) Block diagram of OP-AMP

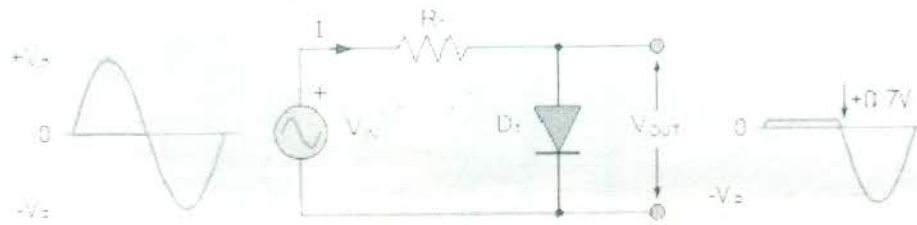
16. Which of these is P type impurity

- (a) Boron
- (b) Antimony
- (c) Arsenic
- (d) None

17. What is output of NOR gate when both inputs are high

- (a) Low
- (b) High
- (c) Can't predicted
- (d) Both input can't be high

18.

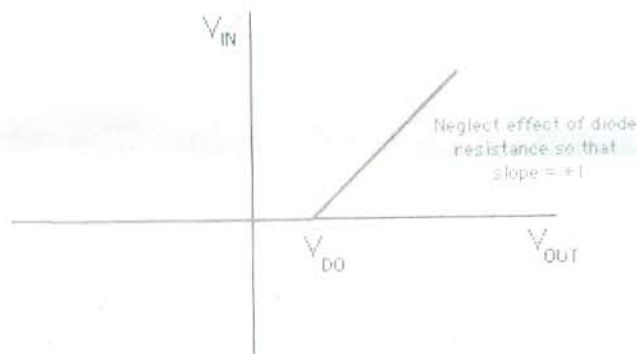


This is circuit of

- (a) Clipper
- (b) Clamper
- (c) Rectifier
- (d) Transducer

19.

This is



This is

- (a) Ideal Transfer characteristics of Diode
- (b) Practical diode characteristics
- (c) Non linear curve
- (d) Parabolic path

20.	Thyristors are not used in (a) Convertors (b) Chopper (c) Amplifier (d) Inverters
21.	Shape of rain drops becomes spherical due to (a) Viscosity (b) Surface tension (c) Pressure (d) None of above
22.	How many minimum equations are needed to find three variables (a) 1 (b) 2 (c) 3 (d) 6
23.	Absolute zero on Kelvin scale is equal to (a) 373K (b) 273 K (c) 0 K (d) None of these
24.	Rate of change of momentum is equal to (e) Force (f) Torque (g) Linear momentum (h) Impulse
25.	Hydrographic surveys deal with the mapping of (a) Mountainous region (b) Canal System (c) Heavenly Bodies (d) Large water bodies
26.	Which value of temperature is equal on both Celsius & forenheit scale (a) 40° (b) 20° (c) -40° (d) 0°
27.	Hygrometer is used for measurement of (a) Humidity (b) Radiation (c) Pressure (d) Displacement
28.	In atmosphere oxygen consists of approximately (a) 20% (b) 12% (c) 92% (d) 78%
29.	Industrial waste cause which pollution (a) water (b) Air (c) Radiometric (d) Soil
30.	Which of following computer language is used for artificial intelligence (a) FORTRAN

	(b) PROLOG (c) C (d) COBOL
31.	Which of the following memory is volatile in nature (a) RAM (b) PROM (c) EPROM (d) EEPROM
32.	Which of the following is not an operating system (a) JAVA (b) Windows VISTA (c) Window XP (d) None of above
33.	Which is not object oriented computer language (a) C++ (b) COBOL (c) JAVA (d) None of above
34.	Which of following is not an octal number (a) 19 (b) 77 (c) 15 (d) 101
35.	What is full form of HTTP (a) Hyper Text transfer Protocol (b) Highper Tex transfer Program (c) High Temperature Tracking Program (d) None of above
36.	Full from of TCP (a) Transmission control Protocol (b) Transmission control Program (c) Transmission control Process (d) None of the above
37.	Which of following projection method does not use projectors Perpendicular to plane (a) Isometric (b) Orthographic (c) Oblique (d) axonometric
38.	A Circle will appear on an isometric drawing as an (a) Ellipse (b) Cycloid (c) Circle (d) Parabola
39.	Which of these is used to convert analog signals into digital signal (a) Phase modulation (b) AM (c) PCM (d) FM
40.	Chemical formula for baking soda. (a) CaCl_2 (b) NaHCo_3 (c) Caocl_2

	(d) HOCL
41.	Which gas is used in fire extinguisher devices (a) Nitrogen (b) Oxygen (c) CO (d) CO ₂
42.	Name the scientist who discovered electrons. (a) James Chadwick (b) John Dalton (c) J-J Thomson (d) Rutherford
43.	Process of cell division can take place by (a) Heterosis (b) Fusion (c) Mitosis (d) None of above
44.	Polio is caused by (a) Protozoa (b) Virus (c) Bacteria (d) Fungus
45.	Nuclear sizes are expressed in a unit named (a) Fermi (b) Angstrom (c) Newton (d) Tesla
46.	EM waves are (a) Transverse (b) Longitudinal (c) Electromagnetic (d) None
47.	MOMENTUM is a (a) Vector (b) Scalar (c) Phasor (d) Tensor
48.	Mirage formation due to the principle of (a) Reflection (b) Refraction (c) Total internal reflection (d) None
49.	In transistor which region is kept very thin (a) Emitter (b) Collector (c) Base (d) None of these
50.	Which of the following material is having highest elasticity (a) Rubber (b) Wood (c) Glass (d) Steel

	General Knowledge
51.	Our National Anthem was written by (a) Rabindra nath tagore (b) S N Pant (c) S K Chauhan (d) Indira gandhi
52.	Childhood name of Swami vivekanand (a) Narendra (b) Piku (c) Dhaula (d) Tipu
53.	Martyrdom Day is celebrated on (a) 1 st June (b) 3 rd June (c) 30 th January (d) 25 th June
54.	Security Council is part of (a) National Investigation Agency (b) United Nations Organization (c) World Bank (d) International Court of Justice
55.	Largest Continent of World (a) Asia (b) Africa (c) Australia (d) North America
56.	Which is located at west coast of India (a) Bay of Bengal (b) Arabian Sea (c) Atlantic Sea (d) Pacific Sea
57.	Who is new CM of Goa (a) Lalu yadav (b) Pramod Mahajan (c) Ram Lal (d) Manohar Parikkar
58.	Who is Governor of Rajasthan (a) R. Raghuraman (b) Kalyan Singh (c) M.S. Ahluwalia (d) S. Srinivasan
59.	Capital of Lakshdeep is (a) Guwahati (b) Kauratti (c) Dimapur (d) Jaipur
60.	Garba dance is famous in (a) Gujrat (b) West Bengal (c) Sikkim

	(d) U.P.
	Hindi
61.	कमल का पर्यायवाची है: a) पंकज b) जलधि c) वारि d) नीर
62.	'चारु चंद्र की चंचल किरणें' में कौन सा अलंकार है a) अनुप्रास b) यमक c) श्लेष d) विरह
63.	'सम्पन्नता' का विलोम होगा a) विपन्नता b) खुशहाली c) गंदगी d) निर्भरता
64.	'काज' का तत्सम रूप होगा a) कारण b) कमी c) कार्य d) कर्तव्य
65.	जो अच्छे कुल में पैदा हुआ हो, कहलाता है a) कुलीन b) संस्कारी c) सर्वज्ञ d) बहुज
66.	नवरात्र में कौन सा समास है a) बहुब्रीहि b) द्वन्द्व c) कर्मधारय d) द्विगु
67.	निम्नांकित में से एक संयुक्त स्वर है a) अ b) आ c) औ d) इ
68.	नाक में दम करना मुहाबरे का अर्थ है

	a) बहुत प्रसन्न होना b) बहुत परेशान होना c) जिज्ञासा शांत करना d) निंदा करना
69.	उज्जयनी में उत्सर्ग है: a) उप b) अप c) उ d) उत्
70.	सभा में कौन सी संज्ञा है: a) व्यक्ति वाचक b) समूह वाचक c) द्रव्य वाचक d) जाति वाचक
71.	मेघ किसका पर्यायवाची है: a) बादल b) पानी c) आकाश d) बिजली
72.	ऑखों का तारा का तात्पर्य है: a) बहुत प्यारा b) बहुत नाराज c) बहुत सुंदर d) कलंक
73.	हिन्दी की लिपि है: a) देवनागरी b) मराठी c) राजभाषा d) अवधी
English	
74.	Synonym of TRUST is (a) Admire (b) Live (c) Belief (d) Small
75.	Antonym of MISER is (a) Beautiful (b) Ugly

	(c) Urgent (d) Spendthrift
76.	Fill suitable preposition : He swam..... the river (a) into (b) beside (c) in (d) across
77.	Which is common noun (a) Plastic (b) Teacher (c) Iron (d) Herd
78.	Small is related to smallest in the same way as good is related to..... (a) Better (b) Best (c) West (d) Biggest
79.	Which word does show group: (a) Herd (b) Swimmer (c) Trekker (d) Runner
	Mathematics
80.	Which of the following numbers gives 650 when added to its own square? a) 25 b) 16 c) 18 d) 20
81.	Two numbers are in ratio 7 : 8. If the sum of the numbers is 90, find the numbers. a) 42 and 48 b) 50 and 65 c) 70 and 95 d) 65 and 75
82.	Complete the sequence 1, 4, 9,, 25 a) 17 b) 18 c) 16 d) 20
83.	Area of a parallelogram whose base is 9 cm and height is 4 cm is square cm a) 9 b) 4 c) 36

	d) 13
84.	What is the sum of $5x^3 - 3x^2 - x$ and $3x^2 + x$? a) $5x^3$ b) $6x^2$ c) $5x$ d) $3x^2$
85.	45% of 640 + 64% of 450 = ? % of 2880 a) 54 b) 20 c) 45 d) 50