

SEAT NO. \_\_\_\_\_

SUPERVISOR'S SIGN \_\_\_\_\_

UNIVERSITY OF MUMBAI'S  
GARWARE INSTITUTE OF CAREER EDUCATION AND DEVELOPMENT  
BACHELOR IN PAINT TECHNOLOGY  
ENTRANCE EXAMINATION

DATE : July 11, 2017

TIME 11 AM TO 12 NOON

MARKS : 50

Q. I] Define the following : ( 20 marks )

1) Normality is -----  
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2) Boiling Point is -----  
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3) Isobaric Process is -----  
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4) Antibiotic is -----  
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5). Endothermic Reaction is -----  
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6) pOH is -----  
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7) Neutron No is -----  
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8) Galvanization is -----  
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9) Saponification is -----  
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10) Antacid is -----  
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Q.II] Circle your choice as a, b, c or d... (20 marks)

- 1) Which out of the following is not a thermodynamic property...  
a. Time, b. Temperature, c. Pressure, d. Volume
- 2) When a gas expands in a vacuum, the work done by the gas is ...  
a. Maximum b. Zero, c. Less than Zero, d. More than Zero.
- 3) What is nature of the salt  $\text{FeCl}_3$ ...  
a. Acidic, b. Basic, .c. Neutral, d. Amphoteric.
- 4) A buffer solution is one which has  
a. Reserve acidity, b. Reserve basicity, c.  $\text{pH} = 7$ , d. Reserve acidity and Reservebasicity
- 5) Brass consists of  
a. Zn & Cu, b. Zn & Sn, c. Cu, Sn & Zn, d. Zn, Ni & Sn
- 6) Chloroform on complete reduction gives  
a.  $\text{CH}_4$ , b.  $\text{CH}_2\text{Cl}_2$ , c.  $\text{CH}_2\text{Cl}$ , d.  $\text{CH}_3\text{CH}_3$
- 7) Phenol is  
a. Acidic, b. Neutral, c. Basic, d. Amphoteric
- 8) The no of Neutrons in the Nucleus of an atom is represented by  
a.  $A - Z$ , b.  $Z - A$ , c.  $A$ , d.  $Z$
- 9) The rate of reaction depends on  
a. Concentration of reactants, b. Temperature , c. Catalyst, d. All of these.
- 10) Which of the following sugars can be used to prepare Glucose on a large scale.  
a. Cellulose, b. Cane sugar, c. Galactose, d. Starch
- 11) The length of a rectangle is increased by 20% and the breadth decreased by 20% then the area,  
a. Decreases by 20%, b. Decreases by 4%, c. Remains the same,  
d. Increases by 20%

12)  $x + y = 3$  and  $y/x = 2$ , then  $y =$  ,  
a.  $1/2$ , b. 1, c.  $3/4$ , d. 2

13) 0.03 times 0.05 is ...  
a. 15%, b. 1.5%, c. 0.15%, d. 0.015%

14) A car wash can wash 8 cars in 18 minutes. At this rate how many cars can be washed in 3 hours..  
a. 13, b. 18, c. 125, d. 405.

15) The next number in the geometric progression, 5, 10, 20, .... is  
a. 25, b. 30, c. 40, d. 50

16) A chair originally costs Rs 200/- . It was offered for sale @108% of the cost. After a week, the price was discounted by 10% and sold. The chair was sold for..  
a. Rs 180, b. Rs 194.40, c. Rs 196, d. Rs 216.

17) If the angles of a triangle are in the ratio of 1:2:2, then the triangle is  
a. Isosceles, b. Obtuse, c. Right angle, d. Equilateral.

18) If 5 men take 2 hours to dig a ditch, how long it will take 12 men to dig the ditch..  
a. 45 minutes, b. 50 minutes, c. 60 minutes, d. 84 minutes

19) The product of 2 nos is 10, and the sum of 2 nos is 7, then larger of the two nos is  
a. - 2, b. 2, c. 3, d. 5

20) The sum of 5 consecutive integers is 35, how many of the 5 consecutive nos are prime nos.  
a. 1, b. 2, c. 3, d. 4.

Q.III. Expand the following abbreviations (2 marks)

1). WHO

2). IPL

3). P.T.O.

4). N.B.

Q.IV. Write the Molecular formula of the following (3 marks)

1) Potassium Dichromate

2) Sodium Thiosulphate

3) Formaldehyde

4) Hydrogen Peroxide

5) Chloroform

6) Sulphuric Acid

Q.V. What is the business of the following Organisations (3 marks)

1) Blue Dart

2) Godrej and Boyce Ltd

3) H D F C

4) Subway

5) Hero Honda

6) Shalimar

Q. VI. Where are the following situated.. (2 marks)

1) Nehru Planetarium

2) Howrah Bridge

3) Vrindavan Gardens

4) Sabarmati Ashram

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BACHELOR OF PAINT TECHNOLOGY (B.P.T.)  
ENTRANCE EXAMINATION**

**SECOND ROUND**

**DATE : 03-AUG-2017**

**TIME : 11 AM TO 12 NOON**

**MARKS : 50**

Q. I] Define the following

(20 marks)

1) Molality is -----  
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2) Isothermal Process is -----  
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3) Joule is -----  
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4) A homogeneous system is -----  
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5) pH is -----  
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6) Electrolysis is -----  
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7) Atomic number is -----  
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8) Phenols are -----  
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9) Fats are -----  
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10) Disinfectants are -----  
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Q II] Circle the answer of your choice a,b,c,or d (20 marks)

- 1) Thermodynamics is concerned with,  
a) only the initial state of the system    b) only the final state of the system  
c) only the time taken by the system    d) both the initial & final state of the system.
- 2) Which of the following is not a state function,  
a) Enthalpy            b) Internal Energy    c) Work    d) Pressure
- 3) If the acid is diluted,  
a) pH increases    b) pH decreases    c) no change    d) vary depending on the acid
- 4) Galvanisation process is,  
a) deposition of Zn on iron    b) deposition of Aluminium on iron.  
c) deposition of Nickel on iron    d) deposition of Copper on iron.
- 5) Chloroform is readily soluble in,  
a) ether    b) acetone    c) water    d) both a and b
- 6) Carboic acid is,  
a) caboxylic acid    b) picric acid    c) o-nitro phenol    d) phenol

- 7) Cane sugar on hydrolysis gives,  
a) glucose and maltose    b) glucose and lactose  
c) glucose and fructose    d) only glucose.
- 8) The treatment of disease by the use of chemical substance is termed as,  
a) angiotherapy    b) chemotherapy    c) physiotherapy    d) homoeotherapy
- 9) Solution of Phenol is used as,  
a) an antibiotic    b) an analgesic    c) an antioxidant    d) a disinfectant.
- 10) Chloromycetin is effective in the treatment of,  
a) cholera    b) typhoid    c) tuberculosis    d) malaria
- 11) If a worker makes 4 boxes of labels in 1 hr 40 mins, how many boxes of labels can he make in 50 mins.  
a) 2    b) 2.3    c) 2.6    d) 3
- 12) If  $x + y = 4$  and  $x - y = 3$  then  $x + 2y$  is  
a) 3.5    b) 4    c) 4.5    d) 7.5
- 13) A tank contains 100 litres of water, if a pump takes  $15 - x/10$  minutes to pump 10 litres of water out of the tank, how many minutes will it take for the pump to empty the tank?  
a)  $15 - 10x$     b)  $150 - 10x$     c)  $150 - x$     d)  $15 - 10x$
- 14) If the area of a square increases by 69%, then the side of the square increases by  
a) 13%    b) 30%    c) 39%    d) 69%
- 15) If 0.2% of  $x$  is 0.03, then  $x$  is  
a) 150    b) 15    c) 1.5    d) 6.7
- 16) The next number in the arithmetical progression 5, 11, 17, ..... is  
a) 22    b) 23    c) 28    d) 18
- 17) If the length of the two sides of a right triangle adjacent to the right angle are 8 and 15 respectively, then the length of the side opposite the right angle is,  
a) 15.8    b) 16    c) 17    d) 17.9
- 18) If the product of 3 consecutive integers is 210, then the sum of the two smaller integers is,  
a) 5    b) 11    c) 12    d) 13

19) If the radius of a sphere is increased by a factor of 2, then the volume of the sphere is increased by a factor of,

- a) 2                      b) 4                      c) 6                      d) 8

20) If the product of two numbers is 5, and one of the number is  $3/2$ , then the sum of the two numbers is,

- a)  $4 \frac{1}{3}$                       b)  $4 \frac{5}{6}$                       c)  $5 \frac{1}{6}$                       d)  $6 \frac{1}{2}$

Q III] Expand the following abbreviations (2 marks)

- 1) ILO
- 2) IPS
- 3) MBA
- 4) GST

Q IV] Write the molecular formula of, (3 marks)

- 1) Potassium Permanganate
- 2) Iodoform
- 3) Acetaldehyde
- 4) Phosphoric acid
- 5) Methane
- 6) Sodium Carbonate

Q V] What is the business of the following organizations? (3 marks)

- 1) Akzo Nobel
- 2) Maruti Udyog
- 3) Air India
- 4) Dominos
- 5) Berger Lewis
- 6) Tech Mahindra

Q VI] Where are the following situated?. (2 marks)

- 1) Birla Planetorium
- 2) Rajiv Gandhi Sea Link
- 3) The Taj Mahal
- 4) Palam International Airport

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