ST. THOMAS' COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF CHEMISTRY   Name: ....

Bridge Course Evaluation 2019-2020

No of Questions: 30   Marks: 60

1. Find the next term of the series 1,5,11,19, ...

     (a)32   (b)28   (c)29   (d)33

2. $234 \times 0 \times 11 \times 22 =$

     (a)555   (b)0   (c)310   (d)None of these.

3. Find the odd one out.

     (a)Rabbit   (b) Cat (c)Elephant   (d)Deer.

4. A fruit basket contains more apples than lemons.

   There are more lemons in the basket than there are oranges.

   The basket contains more apples than oranges.

   If the first two statements are true, the third statement is

     (a)True   (b) False (c) Need not be true   (d) None of these

5. Choose an answer based on given information:

   "When they heard news of the hurricane, Maya and Julian decided to change their vacation plans. Instead of traveling to the island beach resort, they booked a room at a fancy new spa in the mountains. Their plans were a bit more expensive, but they'd heard wonderful things about the spa and they were relieved to find availability on such short notice".

   (a)Maya and Julian take beach vacations every year

   (b)The spa is overpriced.

   (c)It is usually necessary to book at least six months in advance at the spa.

   (d)Maya and Julian decided to change their vacation plans because of the hurricane.

6. Which word does NOT belong with the others?

   (a)Tyre   (b)Steering wheel   (c) Engine   (d) Car

7. Fill the blank in the end of the series.

   FAG, GAF, HAI, IAH, ____

   (a) JAK   (b) HAL   (c) MAN   (d) PAQ

8. ....is the act of expressing ideas, feelings, and transferring data to others.

   (a) music   (b) communication   (c) pronunciation   (d) transformation

9. Greetings, chats and casual conversations are generally considered .... communication.

   (a) informal   (b) formal   (c) official   (d) structural

10. The branch of linguistics that comprises the study of the sounds of human speech is...................

    (a) kinetics   (b) appendix   (c) cybernetics   (d) phonetics

11. ....is the way human body communicates through its physical movements and changes in demeanour.

    (a) proxemics   (b) sign language   (c) body language   (d) arbitrariness

12. The particular feature of human language to refer to past and future time is called ....

    (a) displacement   (b) reflexivity   (c) creativity   (d) duality

13. What is the type of hybridization of carbon in methane molecule?

    a) sp^2 b) sp^3 c) sp^3d d) sp^3d^2

1

14. What is the oxidation state of phosphorous in H_3PO_4?

a) 1   b) 3   c) 5   d) 7

15. Which is the bond present in HCl?

a) Ionic   b) Covalent   c) Coordinate   d) None of these

16. What is the shape of SF_6?

a) Square planar   b) tetrahedral   c) Octahedral   d) Square pyramidal

17. What is the number of atoms in a simple cubic unit cell?

a) 1   b) 2   c) 3   d) 4

18. How many moles are present in 36g of H_2O?

a) 0.5   b) 1   c) 1.5   d) 2

19. The difference between ^{12}C and ^{14}C is in the number of

a) Protons   b) Neutrons   c) Electrons   d) Proton and Neutron

20. Which quantum number distinguishes the electrons in an orbital

a) n   b) l   c) m   d) s

21. The maximum number of electrons that can be accommodated in a d orbital is

a) 2   b) 5   c) 10   d)7

22. Ammonia is considered to be a Lewis base because it is

a) electron pair donor   b) electron pair acceptor

c) proton donor   d) None of these

23. Unit of strain is

a) Meter   b) second   c) pascal   d) none of the above

24. Dimensional formula of force is

a) LT^{-1} b) ML^2T^2 c) MLT^{-2} d) $ML^{-1}T^{-2}$

25. Thermodynamic equation for adiabatic process

a) PV = constant   b) PV = nRT   c) PV^γ = constant   d) $P^\gamma V$ = constant

26. If resistance is 2 Ω and current is 10 Amperes, voltage generated is

a) 8 V   b) 10 V   c) 12 V   d) 25 V

27. $\frac{d}{dx}(\sin x^2) =$

a) Sin 2x   b) $\cos x^2$ c) $-\cos x^2$ d) $2x \cos x^2$

28. $\int_{-2}^{2} x^9 dx =$

a) 0   b) 23   c) 1   d) 26

29. Which one of the following elements is used as a catalyst in Haber process?

b) Mo   b) W   c) Mg   d) Fe

30. What is the standard EMF of the cell with standard reduction potentials of anode equal to 0.5 V and cathode equal to 2.7 V?

b) 3.2 V   b) 2.2 V   c) 1.35 V   d) None of These

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DEPARTMENT OF CHEMISTRY

SYLLABUS FOR BRIDGE COURSE (2019-2020)

Reasoning & Logical Ability

Verbal reasoning, letter and symbol series, verbal classification, logical reasoning etc.

Communication Skills & Language Aptitude

Module I: Communication – introduction – in animals, including human beings.

   Human Communication: purpose (ideas, feelings, data...)

   Communication: oral, written and visual.

Module II: Oral: way of speech – formal / informal – formal: formal settings (official)- informal: between/among peers.

   Written: all forms of writing letters: business, official, minutes, applications, notifications, certificates etc.

   Visual: pictures, graphs, charts, signs, hoardings, posters, maps, photographs etc.

   Audio-visual: sound and visuals.

Module III: Non-verbal Communication: 1) Body language (emotions, feelings, eye contact, gestures, posture etc.) (2) Paralanguage: pitch, intonation, stress etc.

Core Course

Module I: Inorganic Chemistry- Periodic table, chemical bonding, shape and geometry of covalent Compounds

Module II: Organic Chemistry- Introduction to organic compounds and their application; stereochemistry

Module III: Physical Chemistry- Structure of atom, Schrodinger equation and introduction to quantum mechanics

Module IV: Introduction to laboratory techniques

Complementary Course

Module I: Basic ideas of Elasticity, current and electricity, thermodynamics, units and measurement

Module II: Basic Mathematics: Limit, Continuity, Differentiation and Integration.

B. Sc. Chemistry 1st Year

Bridge course Result Analysis

Advanced learners	:	28%
Average Learners	:	52%
Slow Learners	:	4%
Not valued	:	16%

S. No.	Name	Marks	
1	SONA C BABU	54	Advanced learner
2	BILLJOHNS C J	52	Advanced learner
3	CENNA ROSE KARISMA	52	Advanced learner
4	GOKUL G S	52	Advanced learner
5	TINA JOSE	52	Advanced learner
6	PRIYA BABU	52	Advanced learner
7	ANU JOSEPH	52	Advanced learner
8	VARSHA C B	50	Advanced learner
9	ABISHEK.P.T	50	Advanced learner
10	AISWARYA AJITH	50	Advanced learner
11	BRIGHTSON ANTO	48	Advanced learner
12	LAKSHMIPRIYA O S	48	Advanced learner
13	HARSH SIVASANKARAN K S	48	Advanced learner
14	SMINTO.P.JOHNSON	48	Advanced learner
15	ALAN BABU	46	Average Learner
16	PRATHEESH K L	46	Average Learner
17	JEESMON PJ	46	Average Learner
18	DIYANJALY M S	46	Average Learner
19	JERIN GEORGE	46	Average Learner
20	ABHISHEK ANTONY JAMES	46	Average Learner
21	ROHINI S	46	Average Learner
22	SNEHA B	46	Average Learner
23	KAVYA KANNAN	46	Average Learner
24	JILNA JUSTIN V	44	Average Learner
25	DEVIKA P K	44	Average Learner
26	MIZHI K A	44	Average Learner
27	AMISHA ROSE SHAJU	44	Average Learner
28	SADHIKA E M	44	Average Learner
29	NANDANA K K	44	Average Learner
30	SHALVIN SHAJAN	44	Average Learner
31	AUGUSTINE JOYSON	42	Average Learner
32	KRISHNA PRASAD A B	42	Average Learner
33	ANAGHA V	42	Average Learner
34	SONA A V	40	Average Learner
35	SNEHA K S	40	Average Learner

36	AARDRA SUNDAR	40	Average Learner
37	DEVAPRIYA RAJAN	40	Average Learner
38	ATHIRA K J	38	Average Learner
39	AKASH V V	36	Average Learner
40	AGNA NIXON	36	Average Learner
41	DIGITTA UNNI	32	Slow Learner
42	GRACE RAPHEAL	32	Slow Learner
43	ANGEL THARA ANTO	AB	
44	MERIN SHAJU K	AB	
45	SANDRA S MARIYA	AB	
46	NANDA VARMA	AB	
47	FREDIN PAULSON	AB	
48	PAULWIN JACOB	AB	
49	JESWIN JIMMY THATTIL	AB	
50	PRANAV H	AB	