

Half-yearly Examination - 2019.

Chemistry -

Std: XII

Answer / Scoring Key.

I. Choose the correct Answer.

1. b) $Al_2O_3 \cdot 2H_2O$.
2. c) non-metals.
3. d) ability to form $p\pi-p\pi$ bonds with itself.
4. d) I ¹²⁷
5. b) 52.67.
6. d) Geometrical isomerism.
7. b) London force.
8. c) Assertion is true but reason is false.
9. a) (1) - iii, (2) - iv, (3) - i, (4) - (ii).
10. d) Nitro cellulose.
11. b) dimethyl sulfoxide.
12. a) but-3-enoic acid.
13. c) Schiff's base.
14. a) Human digestive systems ^{do not} contain the necessary enzyme called cellulase to hydrolyse cellulose.
15. b) chloroacetal and α terpineol.

Part-II

16. Collector - Sodium ethyl xanthate - ①
 Depressing agent - NaCN. - ①
17. Any two uses of borax - ②
18. Interhalogen compounds - ①
 Example - ①
19. Arrhenius equation $k = Ae^{-E_a/RT}$ - ①
 Explanation of terms - ①
20. Buffer solution - correct statement - ①
 Example - ①
21. Faraday I law of electrolysis - correct statement - ②
22. Trans Esterification - correct Equation - ②
23. Any 2 differences b/w Hormones & Vitamins - ②
24. Aniline does not undergo Friedel Craft reaction - ②
 because it donates its lone pair to the Lewis acid $AlCl_3$ to form an adduct which inhibits further electrophilic substitution.

Part - IV

25. Van Arkel method. - Explanation - (1)
2 Equns - (2)

26. Dehydrating property of H_2SO_4 - Correct Equation - (2)
Statement - (1)

27. Ti^{3+} - outer Electronic Configuration - $3d^1$

$$\mu_s = \sqrt{n(n+2)} \text{ BM} \quad \text{--- (1)}$$

For Ti^{3+} $\mu_s = \sqrt{1(1+2)} = \sqrt{3} = 1.732 \text{ BM.} \quad \text{--- (1)}$

Mn^{2+} - outer Electronic Configuration $3d^5$

For Mn^{2+} $\mu_s = \sqrt{5(5+2)} = \sqrt{35} = 5.9 \text{ BM.} \quad \text{--- (1)}$

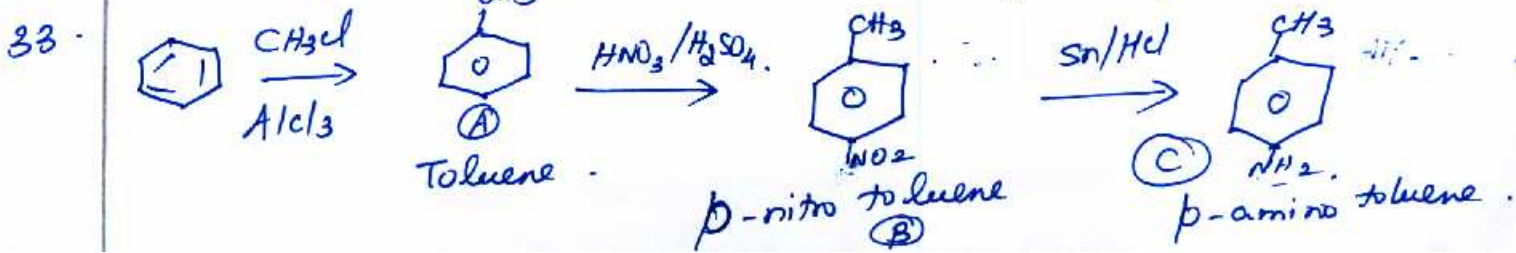
28. Any three characteristics of Ionic crystals - (3)

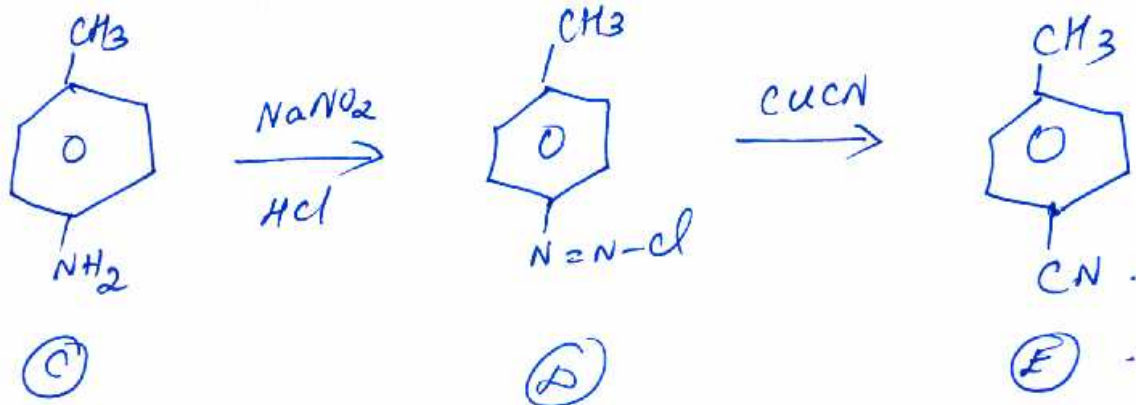
29. H_2-O_2 fuel cell. - explanation (1) + (1)
3 Equation - (1)


30. Catalytic poison. - Correct Statement - (1)
Example - (1)

31. Aldol condensation = correct mechanism - (3)

32. Cleansing action of soap = correct explanation - (2/2)
Structural formula of soap - 1/2



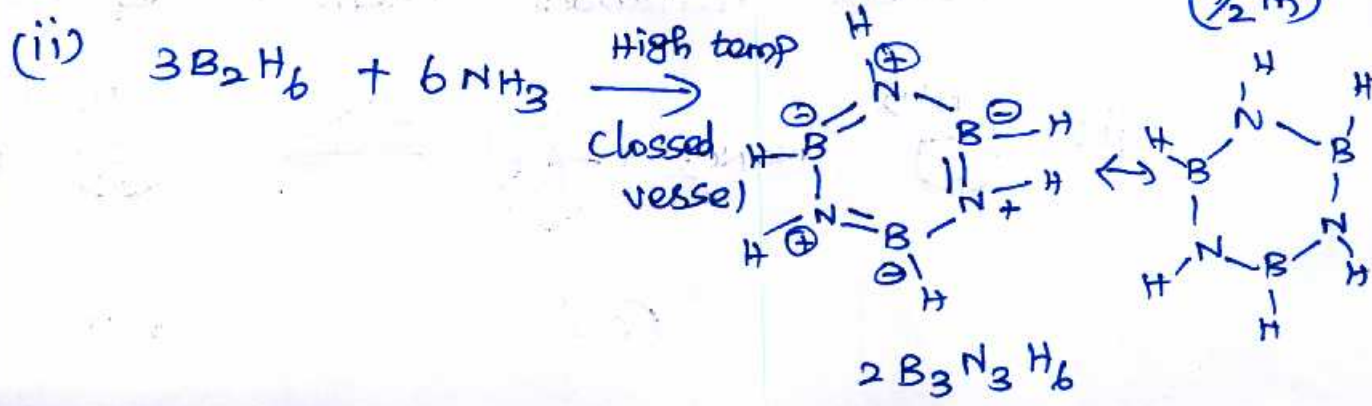
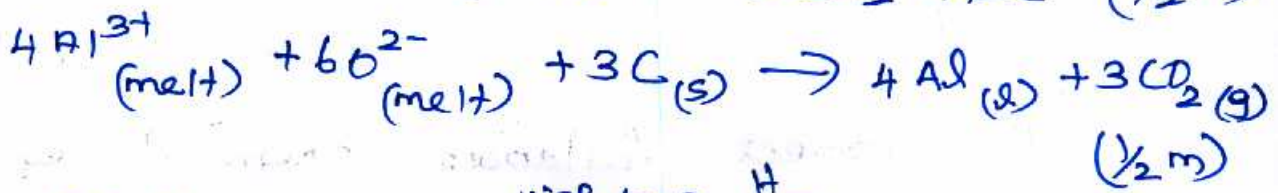
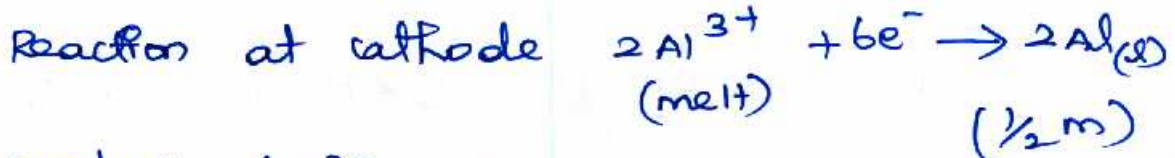


- A - Toluene -
- B - p-nitro toluene -
- C - p-amino toluene -
- D - p-methyl benzene diazonium chloride -
- E - 

Answer all the questions

5x5 = 25

34 (a) (i) Explanation - 1 1/2 m



(08)

(2 m)

b) (i) Any three points (3m)

(ii) Correct explanation (2m)

35) a) (i) Correct explanation (2m)

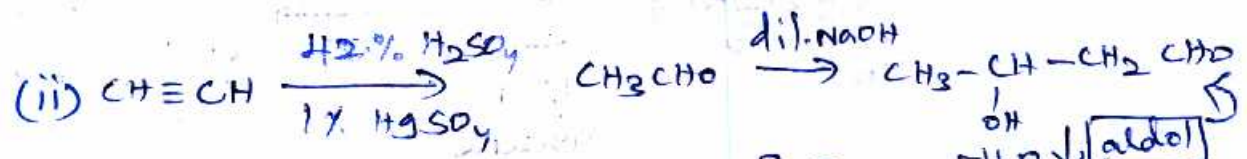
(ii) Representation - (1 m) (08)

b) (i) correct definition (1 1/2 m)

Correct explanation with an example (1 1/2 m)

(ii) Any two difference (2m)

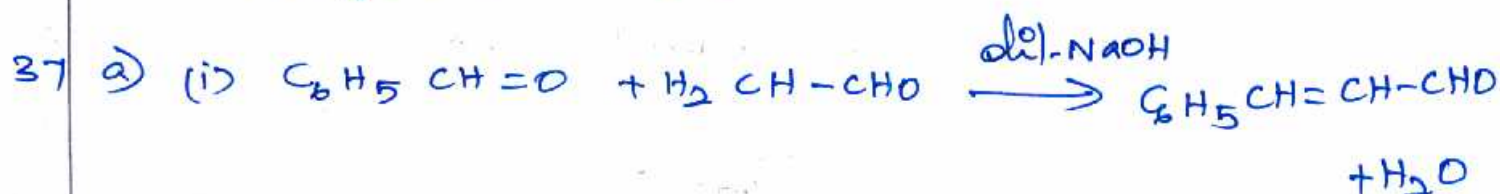
36) a) (i) correct explanation - (2m)



b) (i) correct explanation (2m)

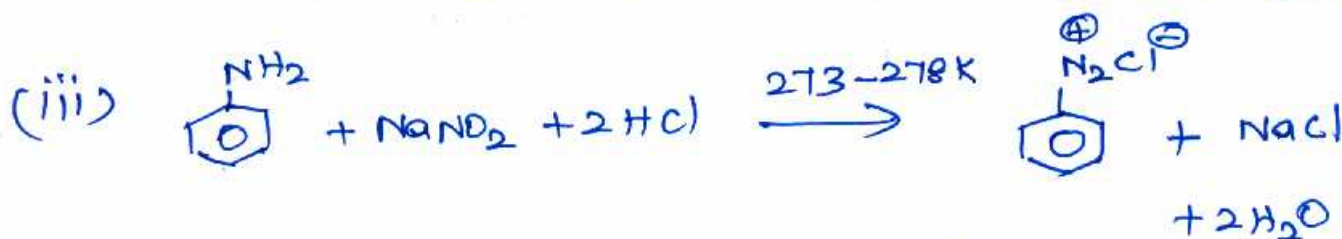
(ii) Explanation (2m)

Diagram (1m)



(2m)

(ii) correct balanced chemical equation (1 1/2 m)



(0.5)

(1 1/2 m)

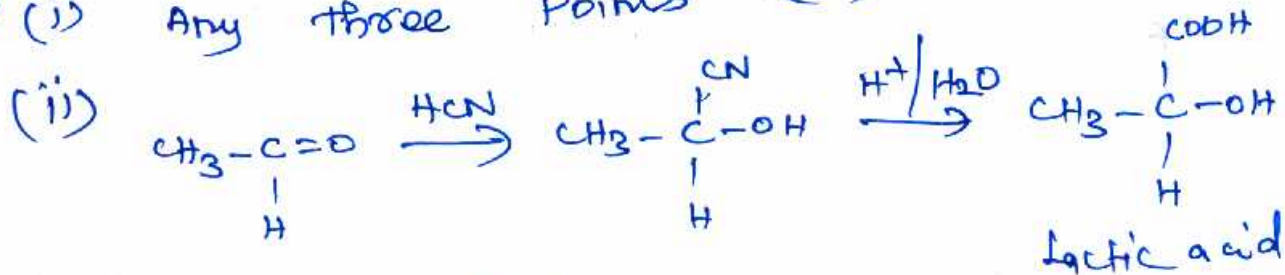
b)

(i) correct equation (2m)

(ii) correct equation (2m)

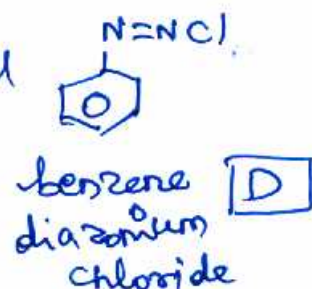
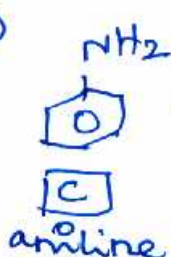
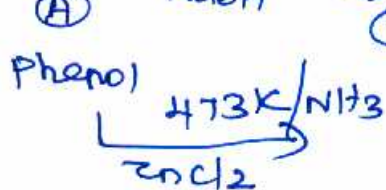
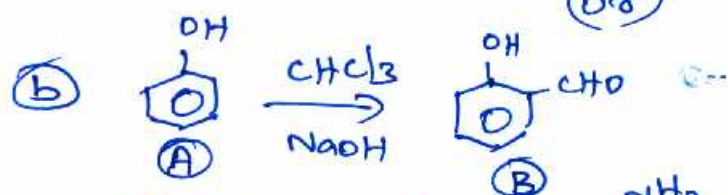
uses (1m)

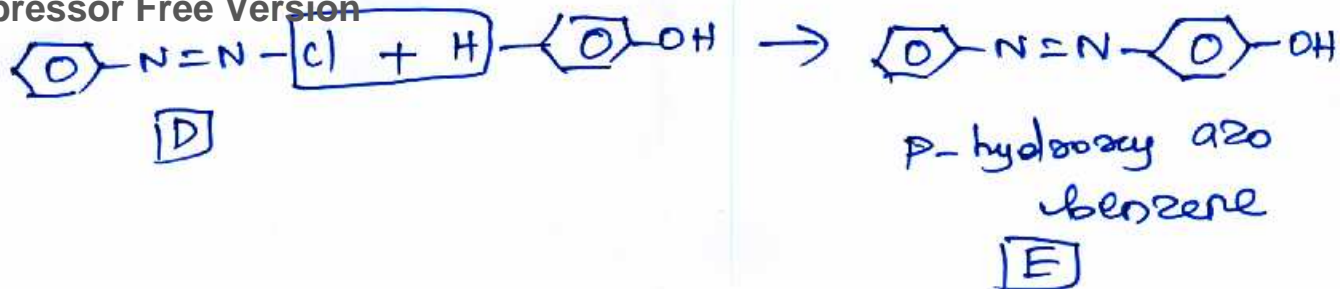
38) a) (i) Any three points (3m)



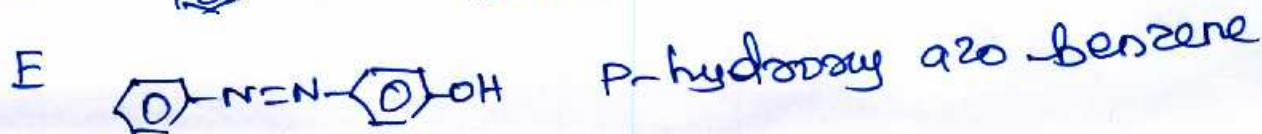
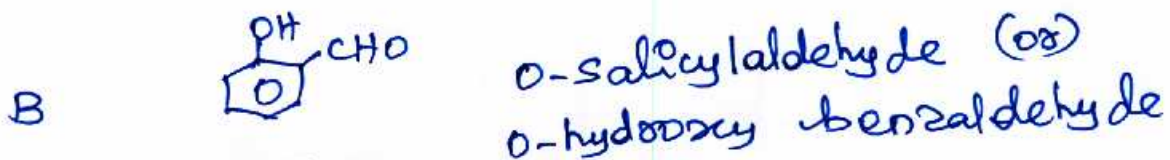
(0.5)

(2m)





Compound



Handling Teachers -

1. T. S. Saha
2. U. S. Saha
3. S. K. Saha
4. S. Saha
5. N. Saha
6. S. Saha

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for
for

