

MODEL QUESTION PAPER (RS2)

PARAMEDICAL BOARD, BENGALURU

Time: 3.00 HRS

Max Marks:100

COURSE: I DIPLOMA IN ALL COURSES

SUBJECT: CHEMISTRY

QP CODE: 4103

I. Short notes, answer any EIGHT questions.

8 X 5 = 40

- How is nitric acid manufactured by Ostwald's process?
- Applications of colloids in food and medicine
- Classification of buffers. Give examples for each.
- Explain production of X-rays. Mention any two applications.
- Match the following.

A	B
a) Co^{60}	i. Age of fossil fuel
b) P^{32}	ii. Goitre
c) I^{131}	iii. Efficiency of phosphate fertilizer
d) Na^{24}	iv. Cancer treatment
e) C^{14}	v. circulation of blood
- How is ethyl alcohol manufactured from molasses?
- Classification of carbohydrates
- What happens when phenol react with a) Br_2 solution b) with Na c) Nitric acid in presence of conH_2SO_4 . Give chemical reactions.
- Discuss effect of temperature and pressure for the reaction
$$2\text{SO}_2 + \text{O}_2 \rightleftharpoons 2\text{SO}_3 \quad H = -QKJ$$
- Choose the correct answer
 - General formula of alkane is a) $\text{C}_n\text{H}_{2n+2}$ b) C_nH_{2n} c) $\text{C}_n\text{H}_{2n-2}$ d) C_nH_n
 - Ethene is a) saturated aliphatic hydrocarbon b) unsaturated aliphatic hydrocarbon c) aromatic hydrocarbon d) None of these
 - Benzene is a) Aliphatic hydrocarbon b) aromatic hydrocarbon c) Heterocyclic hydrocarbon d) None of the se
 - Acetylene has Carbon-Carbon a) single bond, b) double bond, c) triple bond d) none of these

II. Short answers

20 X 3 = 60

- Define a) Atomic mass b) Molecular mass
- Mention any three types of indicators. Give example for each
- What happens when hydrogen peroxide react with a) KI b) FeSO_4 . Give chemical equations
- Mention any three uses of Iodine
- What is washing soda? Mention two uses.
- Define the terms a) Acid b) Base c) Salt
- Mention any three importances of buffer solutions
- Write any three differences between colloids and crystalloids
- 25cm³ of 0.1N H_2SO_4 required 28.8cm³ of sodium hydroxide for complete neutralization. Calculate normality of NaOH solution.
- Fill in the blanks
 - $\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$ is the composition of.....
 - H_2O_2 is the chemical formula of
 - Na_2CO_3 is the chemical formula of
- Biological functions of a)enzymes b) Transport agents c) Antibodies
- Write a note on global warming
- Define the terms a) Free radicals b) carbocations c) carb anions
- What are reversible reactions? Give example
- Explain Friedel craft's reaction with an example
- Any three characteristic properties of ionic compounds.
- Three uses of acetone
- Biological functions of RNA
- Structure of glucose and Maltose
- Give an example for a) acidic amino acid b) basic amino acid and c) neutral amino acid.

MODEL QUESTION PAPER (RS2)
PARAMEDICAL BOARD, BENGALURU

Time: 3.00 HRS

Max Marks: 100

COURSE: I DIPLOMA IN ALL COURSES

SUBJECT: BIOLOGY

QP CODE: 4105

I. Short notes, answer any EIGHT questions.

8 X 5 = 40

1. Write the structure and functions of DNA
2. Describe epithelial tissue
3. Write a neat labeled diagram of Neuron
4. Define process of fertilization
5. **Match the following:**

A <ol style="list-style-type: none">i. Pancreasii. Testesiii. Hypothyroidismiv. Glucocorticoidsv. Hyperpituitarism	B <ol style="list-style-type: none">a. Carbohydrate metabolismb. Acromegalyc. Insulind. Endemic goitere. Androgen
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6. Explain the mechanism of breathing
7. Explain salivary glands and mention the functions of saliva
8. Write the structure of eye ball
9. Name the anterior pituitary gland hormones and mention their functions

10. Multiple choice questions

- i) The master endocrine gland among the following is
A) Thyroid gland B) Hypothalamus C) Pituitary gland D) Adrenal gland
- ii) The normal volume of urine output per day is A) 1-1.5litre B) 3-4 Litre C) 2 –3 Litre D) 200-800ml
- iii) Beta cells of the pancreas secretes A) Insulin B) Glucagon C) Somatostatin D) Growth hormone
- iv) The composition of gastric juice include A) water B) mucus C) HCl D) All of the above
- v) The brain is present within the A) Cranial cavity B) Pelvic cavity C) Thoracic cavity D) Orbital cavity

II. Short answers

20 X 3 = 60

11. Types of fertilization
12. Mitochondria
13. Uses of gene cloning
14. Functions of Aerolar tissue
15. Functions of placenta
16. Example of water borne infections
17. Bar bodies
18. Types and Functions of RNA
19. Applications of Biotechnology
20. **Fill in the blanks:**
 - a) Metabolism involvesand
 - b) Organs are grouped together to form.....
 - c) Zygote is formed from the fusion ofand
21. Functions of CSF
22. Structure of Sperm
23. Nephron
24. Functions of Liver
25. Gastric juice
26. Functions of skin
27. Tidal volume
28. Functions of thyroid hormones
29. Electrocardiogram (ECG)
30. **Answer in one word/sentence**
 - a) Name the gland which secretes Oxytocin and vasopressin hormones
 - b) Mention the pH of blood
 - c) Mention the total number of spinal nerves in the human body

MODEL QUESTION PAPER (RS2)

PARAMEDICAL BOARD, BENGALURU

Time: 3.00 HRS

Max Marks:100

COURSE: I DIPLOMA IN ALL COURSES

SUBJECT: ENGLISH

QP CODE: 4107

- I. Write an essay on any ONE of the following in about 300 words** **15 X1 =15**
1. Health Check up camp
 2. Role of Technicians in Hospital
- II. Answer any one (Letter writing)** **1 x 10 =10**
3. Write a letter to your principal requesting him/her to issue transfer certificate.
 4. Write a letter to your friend asking him to join for a trip.
- 5. Use the following idioms/phrases in sentence of your own** **5 x 1 =5**
- | | |
|----------------------------------|----------------|
| A. Kill two birds with one stone | B. Go through |
| C. Burn the midnight oil | D. For a while |
| E. Zip your lip | |
- 6. Change the following into indirect speech** **5 x1=5**
- | | |
|--|-------------------------------|
| A. She says, "I am little bit nervous" | B. He says " I am ill" |
| C. Ranjitha says "she sang a song" | D. He said " I have finished" |
| E. They said, "they have taken exercise" | |
- 7. Change the voice of the following** **5x1 =5**
- | | |
|--|---|
| A. Mom read the novel in one day | B. The entire house was painted by Hari |
| C. The Director will give you instruction | D. Beautiful Giraffes roam the Savanna |
| E. All the reservation are being made by wedding planner | |
- 8. Write the opposite of the following** **5 x1 =5**
- | | | | | |
|-------------|--------|----------|----------|-------------|
| A. Increase | B. Fat | C. Tough | D. Below | E. External |
|-------------|--------|----------|----------|-------------|
- 9. Fill in the blanks with the suitable prepositions** **5 x1 =5**
- A. He drove from Maharashtra Karnataka without stopping to rest.
 - B. She was hidingthe table
 - C. We have been workingthis morning
 - D. The fireman manages to put..... the fire
 - E. The telephone kept..... ..ringing but no one attended
- 10. Fill in the blanks with articles** **5 x1=5**
- A. I checked..... ..mailbox again
 - B. I was born into.....poor family
 - C. What.....amazing views!
 - D. I want.....apple from that Basket.
 - E. Please bring me cup of coffee
- 11. Give the synonyms of the following** **5 x1=5**
- | | | | | |
|-----------|---------|--------------|---------|--------|
| A. Honest | B. Slim | C. Beautiful | D. Rich | E. Big |
|-----------|---------|--------------|---------|--------|
- 12. Read the following passage carefully and answer the questions that follow.**
- Mangalore dates back to the 3rd centuries B.C. and has been ruled by a number of rulers like Kadambas and Virahariraya. It was later conquered by the Portuguese who lost it to Hyder Ali. The Mangalore city got its name from, the temple known as Mangaladevi. The suffix 'uru' mean town or city. During British rule from 1799 it became Mangalore.
- Surathkal beach another pristine beach in Mangalore and is located 12kms from the main city. The beach is known for its unique powdery sand which is really comforting while walking barefoot.
- Mangalore is called Rome of the east because it celebrates Christmas with traditional gaiety. The city is also known as Gateway of Karnataka.
- On the basis of your reading of the above passage, answer the following.
- | | | | | |
|-----------------------------|--------------|------------|------------|-----------------|
| A. First Ruler of Mangalore | a) Chalukyas | b) Kadamba | c) Yadavas | 2 x2 = 4 |
|-----------------------------|--------------|------------|------------|-----------------|

- B. During which period Mangalore is established
- C. Which famous temple is situated in Mangalore? 1 x 6 =6
- D. Which famous beach is situated near Mangalore?
- E. In which year Mangalore name was established?
- F. Which place is known as Gateway of Karnataka.

Find the words from the passage which means the same as the follows.

- G. End (para-2)
- H. Famous (para-4)

13. Write the correct medical term

10 x1 =10

- | | | | | |
|---------|--------|---------|---------|---------|
| A. Haem | B. ICU | C. Lab | D. Micr | E. Med |
| F. Radi | G. Phy | H. Rhem | I. Neph | J. Orth |

14. E-mail writing

1 x5 =5

Write an email to submit an application for a job in the diagnostic centre or hospital

15. Fill in the blank with appropriate articles and preposition given in the bracket.

(a, the, by, for, an)

1 x5 = 5

In organizing.....small scale Industry is that of ownership, represented the right of.....individual or a group of individuals to acquire legal title to assets..... the purpose of controlling an Industrial operation and enjoying Gain or profits flowing from such activities.

16. Re-arrange the jumbled segments to form a sentence.

1 x6 =6

- A. her house/street to/I walked/across the
- B. that work/he wanted/her to finish/him when/she asked
- C. Nature active/and the rest of/as a place where/may be defined/A sanctuary
- D. food chain/themselves/the pests/are part of
- E. Natural environment /not intervene in/man should not/In the view of author
- F. Court of law/a speech/delivered in a

17. Complete the following dialogue (situation based conversation)

4 x1 =4

- A. At a Clinic
- B. Doctor : greets and enquires about problem
- C. Patient: expresses
- D. Doctor Sure, Rs.500 consultation (replies)
- E. Patient: agree
- F. Doctor: okay I can start the treatment today.
