

भारतीय प्रौद्योगिकी संस्थान रुड़की  
**Indian Institute of Technology Roorkee**

**RECRUITMENT EXAMINATION FOR STAFF NURSE**

**TIER-I**

**This booklet consists of 16 pages.**

इस पुस्तिका में १६ पृष्ठ शामिल हैं।

**Maximum Marks: 50**

अधिकतम अंक: ५०

**Time: 120 Minutes**

समय: १२० मिनट

**Name of Candidate (CAPITAL LETTERS):** \_\_\_\_\_

अभ्यर्थी का नाम

**Roll Number:** \_\_\_\_\_

अनुक्रमांक संख्या

**Father's Name:** \_\_\_\_\_

पिता का नाम

**Date of Examination:** \_\_\_\_\_

परीक्षा की तिथि

\_\_\_\_\_  
**Signature of Candidate**

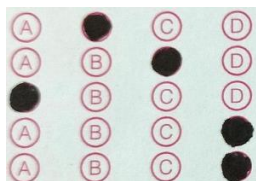
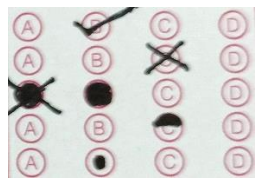
अभ्यर्थी के हस्ताक्षर

\_\_\_\_\_  
**Signature of Invigilator**

निरीक्षक के हस्ताक्षर

## INSTRUCTIONS TO CANDIDATES

1. This question paper has 50 questions. Each question carries one mark. There are four choices for answer (A, B, C, D) to each question. Choose the correct answer (one only) for each question and mark it on the Optical Response Sheet (**ORS**).
2. Read the instructions given in the ORS carefully.
3. Use a black pen only otherwise, ORS will not be evaluated.
4. Candidate must write Name, Roll No., Date of Examination, Booklet Code and sign on the ORS.
5. The candidate should check that the booklet does not have any unprinted or torn or missing pages or questions etc. If so, get it replaced with another question paper.
6. While marking your answer on the ORS, fully darken the circle. Answer once marked cannot be changed.
7. One (1) mark will be awarded for each correct answer and minus one by three ( $-\frac{1}{3}$ ) mark for each incorrect answer. The unanswered questions will not attract negative marks.
8. Return the ORS to the invigilator after the examination is over.
9. Candidate is allowed to take away question paper after the examination.
10. Mobile and other Electronic Gadgets are prohibited in the examination. Watches of any kind are also not allowed.
11. Use of unfair means in examination will lead to cancellation of candidature.

CORRECT Method of Answering in ORS ORS में उत्तर देने का सही तरीका	WRONG Method of Answering in ORS ORS में उत्तर देने का गलत तरीका
	

## उम्मीदवारों के लिए अनुदेश

1. इस प्रश्नपत्र में 50 प्रश्न हैं। प्रत्येक प्रश्न के उत्तर के लिए चार (A, B, C, D) विकल्प हैं। प्रत्येक प्रश्नके लिए सही उत्तर (केवल एक) चुनें और उसे Optical Response Sheet (ORS) शीट पर चिह्नित करें।
2. ORS में दिए गए निर्देशों को ध्यान से पढ़ें।
3. केवल काले पेन का प्रयोग करें, अन्यथा ORS का मूल्यांकन नहीं किया जाएगा।
4. ORS शीट पर अपना नाम, रोल नंबर, परीक्षा की तिथि, पुस्तिका कोड लिखें और हस्ताक्षर करें।
5. उम्मीदवार को यह जांचना चाहिए कि इस पुस्तिका में कोई अमुद्रित या फटे या लापता पृष्ठ या प्रश्न आदि नहीं हैं। यदि ऐसा है, तो इसे एक नये प्रश्न पत्र से बदल लें।
6. ORS पर अपना उत्तर अंकित करते समय उस गोले को पूरी तरह से काला कर दें। एक बार अंकित उत्तर को बदला नहीं जा सकता।
7. प्रत्येक सही उत्तर के लिए एक (1) अंक प्राप्त होगा और प्रत्येक गलत उत्तर के लिए एक बटा तीन ( $-\frac{1}{3}$ ) अंक घटा दिया जाएगा। अनुत्तरित प्रश्न नकारात्मक अंक आकर्षित नहीं करेंगे।
8. परीक्षा समाप्त होने के बाद ORS निरीक्षक को लौटा दें।
9. उम्मीदवार को परीक्षा के बाद प्रश्न पत्र अपने साथ ले जाने की अनुमति है।
10. परीक्षा में मोबाइल और अन्य इलेक्ट्रॉनिक गैजेट्स वर्जित हैं। किसी भी प्रकार की घड़ियों की भी अनुमति नहीं है।
11. परीक्षा में अनुचित साधनों के प्रयोग की स्थिति में उम्मीदवारी रद्द कर दी जाएगी।

**(Objective type questions)**

(वस्तुनिष्ठ प्रकार के प्रश्न)

**Each question carries 1 mark**

प्रत्येक प्रश्न के 1 अंक है

**Note:** Read the passage below and answer question numbers 1 & 2:

I went often to look at the collection of curiosities in Heidelberg Castle, and one day I surprised the keeper of it with my German. I spoke entirely in that language. He was greatly interested; and after I had talked a while, he said my German was very rare, possibly a “unique;” and wanted to add it to his museum. If he had known what it had cost me to acquire my art, he would also have known that it would break any collector to buy it. Harris and I had been hard at work on our German during several weeks at that time, and although we had made good progress, it had been accomplished under great difficulty and annoyance, for three of our teachers had died in the meantime. A person who has not studied German can form no idea of what a perplexing language it is. Surely there is not another language that is so slipshod and system less, and so slippery and elusive to the grasp.

1. Whom did the author surprise with his German?
  - A. The curiosity owner
  - B. The keeper of the castle
  - C. Himself
  - D. His friend Harris
  
2. Find a word in the passage that means “done without care”
  - A. Dem
  - B. Blacksmith
  - C. Slipshod
  - D. Elusive
  
3. Rama lives in a \_\_\_\_\_ hostel.
  - A. boy's
  - B. boys'
  - C. boys
  - D. boys's

4. Unfortunately, my trip to Indonesia \_\_\_\_\_ because I couldn't save enough money.
- A. wash away
  - B. turn up
  - C. fell through
  - D. try out
5. If  $\cos 9\alpha = \sin \alpha$  and  $9\alpha < \frac{\pi}{2}$ , then the value of  $\tan 5\alpha$  is \_\_\_\_\_
- A.  $\frac{1}{\sqrt{3}}$
  - B.  $\sqrt{3}$
  - C. 1
  - D. 0
6. If the angle between two radii of a circle is  $110^\circ$ , then the angle between the tangents at the end of the radii is \_\_\_\_\_
- A.  $90^\circ$
  - B.  $50^\circ$
  - C.  $70^\circ$
  - D.  $40^\circ$
7. A bag has 5 white marbles, 8 red marbles and 4 purple marbles. If we take a marble randomly, then what is the probability of not getting the purple marble?
- A. 0.5
  - B. 0.66
  - C. 0.08
  - D. 0.77

8. Who among the following was the First Indian Cricketer to bag 500 wickets in Test matches?
- A. Kapil Dev
  - B. Javagal Srinath
  - C. Anil Kumble
  - D. Harbhajan Singh
9. Which of the following was the contemporary of both Buddha and Mahavira?
- A. Bimbisara
  - B. Ashoka
  - C. Chadragupta Maurya
  - D. Bindusara
10. The idea of Lokpal is taken from \_\_\_\_\_
- A. Britain
  - B. America
  - C. Scandinavian Countries
  - D. France
11. Vitamin C deficiency can cause \_\_\_\_\_
- A. Cheilosis
  - B. Scurvy
  - C. Rickets
  - D. Pellagra

12. A nurse plans to send the sputum of a person for testing for TB. The best time to take the sample is \_\_\_\_\_
- A. after breakfast
  - B. early morning
  - C. afternoon
  - D. before sleeping at bedtime
13. In quarantine act, a person should be detained after the contact with infectious person for \_\_\_\_\_
- A. incubation period of the disease
  - B. twice the incubation period of the disease
  - C. half the incubation period of the disease
  - D. at least 7 days
14. Rice water stool is characteristic finding in \_\_\_\_\_
- A. Diarrhea
  - B. Typhoid
  - C. Malaria
  - D. Cholera
15. Drug class used for inhibiting cough reflex is called \_\_\_\_\_
- A. Antidotes
  - B. Antispasmodic
  - C. Antitussives
  - D. Antipruritic

16. Most abundant ion in the extracellular fluid is \_\_\_\_\_
- A. Potassium
  - B. Sodium
  - C. Calcium
  - D. Magnesium
17. Who among the following is at the maximum risk of fluid and electrolyte imbalance?
- A. A 35-year-old female
  - B. A 55-year-old male
  - C. A 6-month-old baby
  - D. An adolescent girl
18. A nurse is administering a medication through injection at 15-degree angle. A junior nurse is observing her and understood that the injection is administered as \_\_\_\_\_
- A. Intramuscular
  - B. Subcutaneous
  - C. Intravenous
  - D. Intradermal
19. A patient's serum potassium is 2.2 mEq/L. The doctor prescribed injection KCl for his treatment. The best way a nurse can administer the injection is \_\_\_\_\_
- A. IV bolus dose
  - B. IV infusion
  - C. slow IV over 5 min
  - D. intramuscular

20. You are advised by the doctor to start a medication through a microdrip set. How many micro-drops will constitute 1 ml of fluid?
- A. 15 drops
  - B. 30 drops
  - C. 45 drops
  - D. 60 drops
21. Recommended rate of chest compressions during CPR in an adult patient is \_\_\_\_\_
- A. 80-90 per minute
  - B. 100-120 per minute
  - C. 130-150 per minute
  - D. 350 per minute
22. Most common type of shock in trauma patients is \_\_\_\_\_
- A. cardiogenic shock
  - B. hypovolemic shock
  - C. obstructive shock
  - D. septic shock
23. After nasogastric tube placement, a nurse aspirates the contents and checks the pH of the aspirate. Which if the following pH confirms that the tube is in stomach?
- A. pH of 4
  - B. pH of 7
  - C. pH of 8
  - D. pH of 10



24. A young male collapsed in the park when you were around. You want to determine if he is in cardiac arrest. Which pulse will you check for evaluation?
- A. Radial
  - B. Brachial
  - C. Femoral
  - D. Carotid
25. The term alopecia means \_\_\_\_\_
- A. loss of appetite
  - B. loss of weight
  - C. loss of hair
  - D. body swelling
26. The caliber of pink IV cannula is \_\_\_\_\_
- A. 16G
  - B. 18G
  - C. 20G
  - D. 22G
27. Colour coding for 16 French foley's catheter is \_\_\_\_\_
- A. white
  - B. red
  - C. orange
  - D. green

28. Which of the following is an absorbable suture material?
- A. Nylon
  - B. Catgut
  - C. Silk
  - D. Dacron
29. The action of mydriatic drugs is to \_\_\_\_\_
- A. dilate the pupils
  - B. constrict the pupils
  - C. no effect on pupils
  - D. sometimes dilate sometimes constrict the pupils
30. If a patient has a BP of 120/90, what is the pulse pressure?
- A. 30 mmHg
  - B. 100 mmHg
  - C. 120 mmHg
  - D. 90 mmHg
31. The right method of assessing the surface temperature of a patient is using \_\_\_\_\_
- A. dorsal surface of the hand
  - B. ventral surface of the hand
  - C. lateral border of the hand
  - D. tips of the finger

32. Which of the following is not a vital sign?
- A. temperature
  - B. oxygen saturation on pulse oximetry
  - C. blood pressure
  - D. consciousness
33. Which of the following most accurately describes bradycardia in an adult patient?
- A. pulse rate between 60 / min and 80 / min
  - B. pulse rate between 90 / min and 110 / min
  - C. pulse rate > 120 /min
  - D. pulse rate < 60 / min
34. A patient is brought to the emergency after road traffic crash. Best method to maintain open airway in this patient is \_\_\_\_\_
- A. head-tilt and chin lift
  - B. jaw thrust
  - C. recovery position
  - D. Trendelenberg position
35. Nitroglycerin (NTG) is to be started as a continuous infusion of 10 microgram/min in a 60 kg adult patient. You prepare the infusion solution by mixing 50 mg NTG in NS to make a 50 ml solution. What should be the hourly rate of infusion to achieve the desired dose of infusion?
- A. 6 ml/hr
  - B. 0.6 ml/hr
  - C. 60 ml/hr
  - D. 10 ml/hr

36. A patient is prescribed maintenance fluid at the rate of 60 ml/hr. You start the fluid therapy using an adult drip set. What should be the number of drops per minute to achieve the desired rate of fluid infusion?
- A. 60 drops per minute
  - B. 15 drops per minute
  - C. 10 drops per minute
  - D. 20 drops per minute
37. How much energy is produced after metabolism of 1 g of fat?
- A. 4 Cal
  - B. 9 Cal
  - C. 37 Cal
  - D. 3.7 Cal
38. The ability to maintain a constant internal environment is known as \_\_\_\_\_
- A. Hemostasis
  - B. Homeostasis
  - C. Hemopoiesis
  - D. Hemetemesi
39. You are asked to check the oral temperature of a patient in your ward. Which of the following is the best instruction that you would give the patient to obtain the correct reading?
- A. Place the bulb of the thermometer on the tongue
  - B. Place the stem of the thermometer on the tongue
  - C. Place the bulb of the thermometer under the tongue
  - D. Place the bulb of the thermometer against buccal mucosa

40. While measuring the BP of a patient using auscultatory method, the diastolic BP corresponds to \_\_\_\_\_
- A. 4<sup>th</sup> phase of Korotkoff's sounds
  - B. 3<sup>rd</sup> phase of Korotkoff's sounds
  - C. 5<sup>th</sup> phase of Korotkoff's sounds
  - D. 1<sup>st</sup> phase of Korotkoff's sounds
41. Most appropriate specimen to be taken for urinalysis is \_\_\_\_\_
- A. fore-stream urine sample
  - B. mid-stream urine sample
  - C. hind-stream urine sample
  - D. all of the urine in one attempt
42. The pattern of fever where it reaches normal temperature at regular interval is \_\_\_\_\_
- A. continuous fever
  - B. remittent fever
  - C. factitious fever
  - D. intermittent fever
43. Normal range of serum sodium is \_\_\_\_\_
- A. 105-115 mEq/L
  - B. 115-125 mEq/L
  - C. 125-135 mEq/L
  - D. 135-145 mEq/L

44. On obtaining a 12-lead ECG, 'P wave' denotes \_\_\_\_\_
- A. atrial depolarization
  - B. atrial repolarization
  - C. ventricular depolarization
  - D. ventricular repolarization
45. Overstimulation of medulla oblongata causes \_\_\_\_\_
- A. respiratory alkalosis
  - B. metabolic alkalosis
  - C. respiratory acidosis
  - D. metabolic acidosis
46. Which of the following suggests metabolic acidosis?
- A. High bicarbonate, high  $p\text{CO}_2$
  - B. High bicarbonate, low  $p\text{CO}_2$
  - C. Low bicarbonate, high  $p\text{CO}_2$
  - D. Low bicarbonate, low  $p\text{CO}_2$
47. Which of the following is not an isotonic solution?
- A. 0.9% saline
  - B. Ringer's lactate
  - C. DNS (5% dextrose in 0.9% saline)
  - D. 10% dextrose
48. Healthcare associated infection is acquired by the patient after \_\_\_\_\_
- A. 24 hours of hospitalisation
  - B. 48 hours of hospitalisation
  - C. 72 hours of hospitalisation
  - D. 96 hours of hospitalisation

49. Doctor prescribed a drug with a frequency Q4h. How many times should that drug be administered in a day?
- A. 4 times
  - B. 6 times
  - C. 2 times
  - D. 8 times
50. Doctor prescribes tab. Paracetamol as PRN. The nurse should give the tablet to the patient \_\_\_\_\_
- A. each morning
  - B. in case of an emergency
  - C. whenever needed
  - D. after asking the doctor

**SPACE FOR ROUGH WORK**