

**ROYAL CIVIL SERVICE COMMISSION  
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2022  
EXAMINATION CATEGORY: TECHNICAL**

**PAPER III: SUBJECT SPECIALISATION PAPER FOR MEDICINE AND SURGERY**

---

<b>Date</b>	: October 9, 2022
<b>Total Marks</b>	: 100
<b>Writing Time</b>	: 150 minutes (2.5 hours)
<b>Reading Time</b>	: 15 Minutes (prior to writing time)

---

**GENERAL INSTRUCTIONS:**

1. Write your Registration Number clearly and correctly on the Answer Booklet.
2. The first 15 minutes is to check the number of pages of Question Paper, printing errors, clarify doubts and to read the instructions. You are NOT permitted to write during this time.
3. This paper consists of **TWO SECTIONS**, namely SECTION A & SECTION B:
  - **SECTION A** has two parts: Part I - 30 Multiple Choice Questions  
Part II - 4 Short Answer Questions  
All questions under SECTION A are **COMPULSORY**.
  - **SECTION B** consists of two Case Studies. Choose only **ONE** case study and answer the questions of your choice.
4. All answers should be written on the Answer Booklet provided to you. Candidates are not allowed to write anything on the question paper. If required, ask for additional Answer Booklet.
5. All answers should be written with correct numbering of Section, Part and Question Number in the Answer Booklet provided to you. Note that any answer written without indicating the Section, Part and Question Number will NOT be evaluated and no marks will be awarded.
6. Begin each Section and Part in a fresh page of the Answer Booklet.
7. You are not permitted to tear off any sheet(s) of the Answer Booklet as well as the Question Paper.
8. Use of any other paper including paper for rough work is not permitted.
9. **You must hand over the Answer Booklet to the Invigilator before leaving the examination hall.**
10. This paper has **7 printed pages**, including this instruction page.

**GOOD LUCK**

SECTION A

PART I: Multiple Choice Questions [30 marks]

Choose the correct answer and write down the letter of your chosen answer in the Answer Booklet against the question number e.g. 31 (d). Each question carries ONE mark. Any double writing, smudgy answers or writing more than one choice shall not be evaluated.

1. Chlorine acts best as a disinfectant when the pH of water is:
  - a) 7
  - b) 8.5
  - c) 6
  - d) Above 8.5
  
2. Magnesium sulfate is used in pre-eclampsia to
  - a) control BP.
  - b) prevent seizures.
  - c) prevent preterm labour.
  - d) prevent foetal death.
  
3. What is the aim of doing blood sugar during pregnancy?
  - a) To prevent abortion
  - b) To prevent congenital malformations
  - c) To decrease the incidence of fetal macrosomia
  - d) To minimize diabetic ketoacidosis.
  
4. A female patient presents with vulvar irritation and pruritis. There was hyperemia and edema of the vagina with odorless discharge. The most likely diagnosis is:
  - a) Candidiasis
  - b) Trichomoniasis
  - c) Bacterial vaginosis
  - d) Gonococcal vaginitis
  
5. Molar pregnancy occur mostly during\_\_\_\_\_.
  - a) 1<sup>st</sup> trimester
  - b) 2<sup>nd</sup> trimester
  - c) 3<sup>rd</sup> trimester
  - d) All 3 trimesters
  
6. Intra abdominal injury may be associated with fractures of ribs:
  - a) 7 through 10
  - b) 8 through 11
  - c) 9 through 12
  - d) 6 through 9
  
7. Monkey pox rashes are most commonly seen on the
  - a) Palms and soles
  - b) Face
  - c) genitalia
  - d) abdomen

8. Most common complication of measles is:
- Otitis media
  - Peumonia
  - Sub acute sclerosing Panencephalitis
  - Encephalitisq
9. Which of the following is a sexually transmitted disease?
- Pediculosis capitis
  - Pediculosis corporis
  - Pediculosis pubis
  - None of the above
10. The most common site for osteosarcoma is:
- Proximal tibia
  - Distal femur
  - Lower end of tibia
  - Shaft of fibula
11. Vaccine vail monitor
- has an active substance in the square on a white circle.
  - has an active substance in the circle on a white square.
  - is of three types.
  - indicates the exposure of vaccines to cold temperature.
12. In Bhutan, the hepatitis B vaccine (0 dose) is given within \_\_\_\_\_ hours of birth.
- 48
  - 24
  - 72
  - 96
13. Losartan is
- an angiotensin converting enzyme inhibitor.
  - a diuretic.
  - a beta blocker.
  - an angiotensin ii receptor blocker.
14. The diagnostic test of choice for pneumothorax is
- X - ray of chest
  - CT of chest
  - Ultrasound of chest
  - Aspiration of the chest
15. Massive hemoptysis is usually caused by
- tuberculosis and asthma.
  - bronchiectasis and asthma.
  - tuberculosis and bronchiectasis.
  - chronic obstructive lung disease and pulmonary embolism.

16. The most common site of carcinoma stomach is
- Body of stomach
  - Cardia and fundus
  - Pyloric region
  - Whole of stomach
17. In Paracetamol poisoning,
- N-acetylcysteine prevents development of hepatotoxicity.
  - N-acetylcysteine prevents development of encephalopathy.
  - N-acetylcysteine is of no use after 24 hours post ingestion.
  - The hepatic injury dose is less than 8 grams.
18. Patients with snake bites should
- receive antivenom as soon as they reach emergency department.
  - receive antivenom when there is evidence of envenoming.
  - receive antivenom after identifying the snake.
  - receive antivenom as per body weight.
19. The most common cause of primary postpartum hemorrhage is:
- Trauma of the birth canal
  - Blood coagulopathy
  - Multiple pregnancy
  - Atonic uterus
20. All are true regarding false labour pain **EXCEPT**
- There is pain and discomfort in the abdomen.
  - It is found more in primigravidae.
  - There is no dilatation of cervix.
  - The pain is intermittent.
21. Which one of the following is a feature of true labour pain?
- Progressive effacement and continuous pain.
  - Progressive effacement and dilatation of the cervix.
  - There is an increased fetal movements.
  - Contraction with mild intensity.
22. Corticoid therapy is given to
- all preterm labour.
  - delay the delivery.
  - all high-risk pregnancies for preterm labour.
  - preterm labour of less than 34 weeks.
23. Second stage of prolonged labour is defined as
- non descend of the presenting part after 8cm dilatation of the cervix.
  - lasting more than 2 hours for primi and 1 hour for multigravida.
  - lasting more than 2 hours for both primi and multi gravida.
  - variable degrees of moulding but no caput formation.

24. Cord prolapse is most common in
- breech presentation.
  - footling presentation.
  - premature labour.
  - transverse lie.
25. The most common causative organism of acute otitis media is
- Streptococcus pneumonia and Hemophilus influenzae.
  - Group A streptococcus and Hemophilus influenza.
  - Staphylococcus and streptococcus pneumonia.
  - Streptococcus pneumonia and Group A streptococcus.
26. The best treatment of choice for Delirium tremens is
- Intravenous Phenobarbitone
  - Oral Phenobarbitone
  - Benzodiazepines
  - Propafol
27. Cerebral malaria is caused by
- Plasmodium ovale
  - plasmodium malariae
  - Plasmodium falciparum
  - Plasmodium vivax
28. Which one of the following vaccines are given at 14 weeks of age in Bhutan?
- OPV, pentavalent 1 and IPV
  - OPV, pentavalent 2 and PCV
  - OPV, pentavalent 3 and IPV
  - OPV, pentavalent 1 and PCV
29. Adverse Events Following Immunisation due to program errors **EXCEPT**
- Non sterile injections
  - Reconstitution errors
  - Incorrect route
  - Vaccine product related reaction
30. Thick purulent discharge in conjunctivitis is seen in
- Viral conjunctivitis
  - Bacterial conjunctivitis
  - Allergic conjunctivitis
  - All of the above

**PART II – Short Answer Questions [20 marks]**

**This part has 4 Short Answer Questions. Answer ALL the questions.**

1. A 9-month-old child was brought for immunization. The record shows that the child had received the vaccines up to date.
  - a) Name the vaccines the child had received at his age. (2 marks)
  - b) What vaccine should the child receive today? (1 mark)
  - c) Define immunization. (1 mark)
  - d) When should the child receive Human papilloma vaccine? (1 mark)
  
2. A 35-year-old man presented with history of fever and rash, generalized headache and myalgia. There was an eschar at a site of an unknown bite.
  - a) What is the most probable diagnosis? (1 mark)
  - b) What is the causative organism? (1 mark)
  - c) What is the treatment? (1 mark)
  - d) Name the complications of this disease if untreated. (2 marks)
  
3. A 25-year-old primigravidae was brought to the Emergency room with retained placenta. On examination the vitals were stable, with minimal vaginal bleeding. (5 Marks)
  - a) Define retained placenta. (1 mark)
  - b) Name types of retained placenta. (2 marks)
  - c) How will you manage this patient? (2 marks)
  
4. A 41-year-old lady presented to the OPD with tiredness, cold intolerance and weight gain for the duration of 2 months. On examination there was edema of the swelling of the legs and cold clammy skin. The pulse rate was 60/minute.
  - a) What is the most probable diagnosis? (1 mark)
  - b) Mention 3 other symptoms you would ask the patient. (3 marks)
  - c) What specific test would you order? (1 mark)

**SECTION B: Case Study [50 marks]**

**Choose either Case I OR Case II from this section. Each case study carries 50 marks. Mark for each sub-question is indicated in the brackets.**

**CASE I**

A 35-year-old male came to OPD with loss of weight over the past 3 months. He had increased thirst and frequency of urine. He has to eat more than 3 meals a day but still feels hungry. He is a known hypertensive on treatment. On examination his blood pressure was 150/100 mmHg. There were no leg ulcers.

1. What other symptoms of the disease would you ask? **(2 marks)**
2. What could be the diagnosis? **(2 mark)**
3. How will you confirm the diagnosis and investigations you would order? **(5 marks)**
4. Mention 2 causes for this disease. **(2 marks)**
5. State 2 risk factors for the disease. **(2 marks)**
6. List the macrovascular and microvascular complications of this disease. **(6 marks)**
7. What are the clinical features of the retinopathy? **(2 marks)**
8. Mention the risk factors for this disease during pregnancy. **(3 marks)**
9. Classify the drugs used to treat this disease. **(10 marks)**
10. Name the emergency conditions that can occur with this disease. **(4 marks)**
11. Which antihypertensive drug should not be used for this patient? **(2 marks)**
12. How would you manage this patient? **(10 marks)**

**CASE II**

A 4-year-old boy presented to pediatric OPD with persistent cough and poor weight gain for the duration of 1 month. The child had mild fever, no appetite and not active like his classmates. Treatment with 2 courses of antibiotics has not cured his symptoms. On examination there were few cervical matted lymph nodes which were non tender. His body weight was 12kg.

1. What is the most probable diagnosis? **(2 marks)**
2. How would you proceed to confirm the diagnosis and investigations you would order? **(10 marks)**
3. Who else should be screened for the disease? **(2 marks)**
4. What is the vaccine used to prevent this disease? And mention the route of vaccination. **(2 marks)**
5. Which forms of this disease does the vaccine protect? **(4 marks)**
6. What would be the Chest X ray findings in this disease? **(5 marks)**
7. What are the principles of treatment of this disease? **(5 marks)**
8. Describe the treatment regime of the disease, including dosages and side effects of drugs used in Bhutan. **(10 marks)**
9. How would you manage adherence of the treatment in this child? **(10 marks)**

**TASHI DELEK**