

ROYAL CIVIL SERVICE COMMISSION
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2020
EXAMINATION CATEGORY: TECHNICAL

PAPER III: SUBJECT SPECIALISATION PAPER FOR MEDICINE AND SURGERY

Date	: February 27, 2021
Total Marks	: 100
Writing Time	: 150 minutes (2.5 hours)
Reading Time	: 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 the 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 QuestionsAll 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 on 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 **8 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. The best investigation for the diagnosis of carcinoma stomach is
 - a) Barium meal
 - b) Gastroscopy and biopsy
 - c) CT scan of the abdomen
 - d) MRI scan of the abdomen

2. In iron deficiency anemia, which of the following feature is seen?
 - a) Microcytic, hypochromic and low serum ferritin level.
 - b) Microcytic, hypochromic and high serum ferritin level.
 - c) Macrocytic, normochromic and low serum ferritin level.
 - d) Macrocytic, hypochromic and high serum ferritin level.

3. Common causes of hyperthyroidism are
 - a) Graves' disease, gestational thyrotoxicosis and toxic multinodular goiter.
 - b) Graves' disease, toxic multinodular goiter and solitary toxic nodule.
 - c) Graves' disease, gestational thyrotoxicosis and acute thyroiditis.
 - d) Graves' disease, TSH secreting pituitary tumours and toxic multinodular goiter.

4. Cause of death due to cobra bites is due to
 - a) Hemolysis.
 - b) Respiratory muscle paralysis.
 - c) Hemolysis and respiratory muscle paralysis.
 - d) Respiratory muscle paralysis and acute renal failure.

5. Anginal pain
 - a) is a choking or constricting chest pain on exertion.
 - b) is relieved on rest.
 - c) is due to myocardial ischemia.
 - d) All of the above.

6. A 50-year-old male developed a sudden onset of chest pain radiating to the jaw, sweating and nausea. The ECG shows ST elevation in the V1-V6, I and aVL leads. Which of the following coronary artery is occluded?
 - a) Left anterior descending artery
 - b) Left circumflex coronary artery
 - c) Left main coronary artery
 - d) Right coronary artery

7. During Ventricular fibrillation
 - a) there is no pulse and ECG is chaotic, bizarre and irregular complexes.
 - b) there is no pulse and ECG shows broad bizarre QRS with tachycardia.
 - c) the pulse is rapid and ECG is chaotic, bizarre and irregular complexes.
 - d) the pulse is irregular and ECG shows no P waves.

8. Chronic Obstructive Pulmonary Disease consists of
 - a) chronic bronchitis and bronchiectasis.
 - b) chronic bronchitis and emphysema.
 - c) chronic bronchitis and bronchial asthma.
 - d) chronic bronchitis and interstitial lung disease.

9. Treatment of Pneumococcal Pneumonia is
 - a) Intravenous cloxacillin
 - b) Amoxicillin or co-trimoxazole
 - c) Ciprofloxacin
 - d) Erythromycin or tetracycline

10. Helicobacter pylori is treated with
 - a) Amoxicillin 500mg, omeprazole 20 mg and clarithromycin.
 - b) Amoxicillin 500mg, omeprazole 20mg and erythromycin 500mg.
 - c) Amoxicillin 1gm, omeprazole 20mg and clarithromycin.
 - d) Amoxicillin 1gm, omeprazole 20mg and erythromycin.

11. Covid-19 is caused by
 - a) severe Acute Respiratory Syndrome corona virus 3
 - b) severe Acute Respiratory Syndrome corona virus 1
 - c) severe Acute Respiratory Syndrome corona virus 2
 - d) Covid virus

12. Measles is presented with
 - a) fever, cough, conjunctivitis, coryza and maculopapular rash.
 - b) fever, Koplik spots and cervical lymphadenopathy.
 - c) fever, maculopapular rash and eczema.
 - d) fever, urticarial rash and Koplik spots.

13. Pentavalent vaccine in Bhutan is given at
 - a) birth and at 6 weeks of age.
 - b) 6 weeks, 10 weeks and 9 months of age.
 - c) 6 weeks, 10 weeks and 14 weeks of age.
 - d) 6 weeks, 9 months and 2 years of age.

14. Hepatitis B birth dose is given within
 - a) 3 days of birth.
 - b) 7 days of birth.
 - c) 72 hours of birth.
 - d) 24 hours of birth.

15. A diabetic patient on metformin has no signs of nephropathy. Which test is appropriate to screen for early signs of renal damage?
- Creatinine clearance
 - Early morning urine for albumin: creatinine ratio
 - Ultrasound scan of the kidneys
 - Urine routine test
16. Ruptured ectopic pregnancy is diagnosed by
- clinical examination and ultrasound.
 - clinical examination and urine pregnancy test.
 - gestational age and abdominal X ray.
 - urine pregnancy test and history of infertility treatment.
17. First line drugs for the treatment of Tuberculosis in Bhutan are
- INH, Rifampicin, streptomycin and pyrazinamide.
 - INH, Rifampicin, ethambutol and pyrazinamide.
 - INH, Rifampicin, ethionamide and pyrazinamide.
 - INH, Rifampicin, ethambutol and etreptomycin.
18. Which of the following diabetic drugs causes hypoglycemia?
- Metformin
 - Glibenclamide
 - Pioglitazone
 - Acarbose
19. Which of the seizure controlling drug causes gum hypertrophy?
- Phenobarbitone
 - Carbamazine
 - Phenytoin
 - Sodium valproate
20. In anaphylaxis, the drug of choice is
- Hydrocortisone
 - Dexamethasone
 - Adrenaline
 - Nor adrenaline
21. Neonatal jaundice within 24 hours of birth is
- Physiological jaundice
 - Due to maternal infections
 - Pathological jaundice
 - Due to induction of labour

22. Signs of rickets are
- widened epiphyses of wrists, beading of the costochondral junctions and groove in the rib cage.
 - widened epiphyses of wrists, beading of the costochondral junctions and shortening of limbs.
 - widened epiphyses of wrists, rickety rosary and decreased serum alkaline phosphatase.
 - widened epiphyses of wrists, Harrison's sulcus and high serum 25-hydroxyvitamin D3.
23. The life threatening fracture is
- Fracture of skull
 - Fracture of the humerus
 - Fracture of the mid femur
 - Fracture of the maxilla
24. A 25-year-old lady is brought to emergency with several packets of paracetamol with her. She is drowsy and cannot give any proper history.
- Which one of the following should be done immediately?
- Gastric lavage
 - N-acetyl cysteine infusion
 - Paracetamol plasma level at 4 hours
 - Urgent liver function test and clotting screen.
25. A 20-year-old man developed sudden pain over his lower sternum, is breathless and nauseated. He had no medical problems earlier. On auscultation, there is decreased air entry at the right apex.
- The man is suffering from
- Acute pericarditis
 - Pneumonia
 - Costochondritis
 - Pneumothorax
26. Which cancer if diagnosed early is curable?
- Gastric carcinoma
 - Cervical carcinoma
 - Pancreatic carcinoma
 - Osteosarcoma
27. A 25-year-old lady was brought to the emergency with severe abdominal pain. On examination, she was pale and had tenderness over the right side of abdomen. The blood pressure was 80/50mmHg.
- What is the most probable diagnosis?
- Acute gastritis
 - Ruptured ectopic pregnancy
 - Ruptured acute appendicitis
 - Acute cholecystitis.

28. A 42-week-pregnant lady visited OPD with decreased fetal movements for one day. What is your management?
- Examine her and reassure the fetus is normal and to review after 1 week.
 - Do an ultra sound and admit her if the fetus is alive.
 - Do ultrasound, if alive fetus, do CTG and plan for delivery.
 - Admit the patient, wait and watch.
29. A man who had fracture of the tibia in a car accident was brought to the emergency. The management of the patient is to
- refer to orthosurgeon.
 - assess the patient for vitals, split the fractured leg, give analgesics and consult orthosurgeon.
 - split the fractured leg and consult orthosurgeon.
 - give analgesics, split the fractured limb and refer the patient to orthopedic OPD.
30. A snake bite patient was brought to emergency and is stable. The relatives had also brought the killed snake with the head all smashed. The management of the case is to
- reassure the patient and keep assessing the vitals.
 - tie the limb just above the bite and reassure the patient.
 - tie the limb just above the bite and start antivenom.
 - reassure the patient, keep monitoring the vitals and send for required blood tests.

PART II – Short Answer Questions [20 marks]

This part has 4 Short Answer Questions. Answer ALL the questions. Each question carries 5 marks.

- A 25-year-old lady was brought to your chamber with feeling of sadness or hopelessness or with no interest in activities most of the day. His attendant says the patient has lost significant weight without dieting.
 - What is the most probably diagnosis? (1 mark)
 - List two more symptoms to confirm the diagnosis. (2 marks)
 - Name two drugs used to treat the disease. (2x0.5 =1 mark)
 - Write two steps you would discuss with the patient before starting the treatment. (2x0.5 =1 mark)
- A primi at 39 weeks of gestation was in 2nd stage of labour. You were called to assess the newborn.
 - How would you carry out the assessment of the newborn? (2 marks)
 - What are the differences between caput succedaneum and cephalomatoma? (2 marks)
 - What is “witch’s milk”? What is the cause? (2x0.5=1 mark)
- A patient visited the medical OPD with history of tremor of hands and weight loss for a duration of one month. On examination he had tachycardia and looked very anxious.
 - Give two differential diagnosis. (2x0.5=1 mark)
 - What blood test would you order to ascertain the diagnosis. (1 mark)
 - Write two causes of the above diagnosis. (2 marks)
 - Name one drug used for this disease. (1 mark)

4. A primi at 10 weeks is brought to emergency with bleeding per vagina. On examination, there was products on conception coming out of the cervical Os and the BP was 80/60mmHg.
- What is the diagnosis. (0.5 mark)
 - What the complications of early pregnancy? (3x0.5=1.5 marks)
 - What are the stages of spontaneous abortion? (4x0.5=2 marks)
 - What is the most common cause of spontaneous abortion? (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 lady a mother of 2 children was brought to the emergency department with acute onset of abdominal pain for one day. She had fever and vomiting.

- What other relevant questions would you ask the patient? (2 marks)
- Write five differential diagnosis of non traumatic cause for the case. (5 marks)
- How will you proceed with the examination of the patient? (5 marks)
- List the investigations you would do to guide to diagnosis. (5 marks)
- What would be your immediate management? (3 marks)
- Write the management of one of the differential diagnosis (10 marks)
- If the patient had come from a Covid-19 Red zone area, how would you manage the patient?
(5 marks)
- If the patient is a HIV patient, name the possible opportunistic infections patient can have?
(5 marks)
- Mention five thoracic causes of abdominal pain. (5 marks)
- Mention five traumatic causes of abdominal pain. (5 marks)

CASE II

A 60-year-old man presented with productive cough, fever and breathlessness for a duration of three days. He is a diabetic and hypertensive on treatment. The temperature was 38.8°C. His diabetes and hypertension is under control. There is no travel history within or outside the country. On examination of the chest, there was a decreased breath sounds on the left side of the chest with dullness on percussion.

1. What is the most probable diagnosis? (1 mark)
2. Name the five causative organisms of the above disease. (5 marks)
3. List down five lung conditions as predisposing factors. (5 marks)
4. Mention three radiological findings in the disease. (3 marks)
5. Name the causative organism that is resistant to methacillin. (1 mark)
6. How would you confirm your diagnosis? (5 marks)
7. What other respiratory diseases could mimic the diagnosis? (3 marks)
8. How would you manage the patient including counselling? (10 marks)
9. If the patient had come from a Covid-19 Red zone area how would you manage the patient?
(5 marks)
10. What are the preventive measures to prevent the disease? (2 marks)
11. List the five complications of the disease. (5 marks)
12. Which of the above complications need surgical intervention and how is it done? (5 marks)

TASHI DELEK