

**ROYAL CIVIL SERVICE COMMISSION  
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2019  
EXAMINATION CATEGORY: TECHNICAL**

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

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<b>Date</b>	: October 13, 2019
<b>Total Marks</b>	: 100
<b>Writing Time</b>	: 150 minutes (2.5 hours)
<b>Reading Time</b>	: 15 Minutes (prior to writing time)

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**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 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 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 are required to 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. In children age 0 to 2 months, the respiratory rate to diagnose pneumonia is
  - a) 60 breaths per minute.
  - b) 60 or more breaths per minute.
  - c) 50 breaths per minute.
  - d) 50 or more breaths per minute.
  
2. Jaundice in a neonate is pathological if it occurs
  - a) after 72 hours after birth.
  - b) within 24 hours of birth.
  - c) after 7 days of birth.
  - d) any time after birth.
  
3. What is the gap required to maintain during immunization between two live vaccines?
  - a) 14 days is required
  - b) 21 days is required
  - c) 28 days is required
  - d) No gap is required.
  
4. Which of the two vaccines are given intradermal?
  - a) Pneumococcal vaccine (PCV) and BCG
  - b) Pentavalent vaccine and BCG
  - c) DTP and BCG
  - d) Antirabies vaccine and BCG.
  
5. Dengue is caused by
  - a) anopheles female mosquitoes.
  - b) anopheles male mosquitoes.
  - c) ades mosquitoes.
  - d) dengue viruses.
  
6. What is the side effect of Enalapril?
  - a) Dry cough
  - b) Pedal edema
  - c) Peripheral neuropathy
  - d) Diuresis

7. Losartan belongs to which antihypertensive group?
- Diuretic group.
  - Angiotensin converting enzyme inhibitor.
  - Calcium channel blocker.
  - Angiotensin receptor blocker.
8. Complications of hypertension are:
- Stroke, heart failure and liver failure.
  - Stroke, chronic kidney disease and coronary disease.
  - Stroke, peripheral artery disease and deafness.
  - Heart failure, chronic kidney disease and pancreatitis.
9. First line tuberculosis drugs are:
- INH, Rifampicin, ethambutol and pyrazinamide.
  - INH, Rifampicin, ethambutol and kanamycin.
  - INH, Rifampicin, pyrazinamide and ethionamide.
  - INH, pyrazinamide, ethionamide and kanamycin.
10. Biguanides belong to
- sulfonylureas class of diabetic drugs.
  - non-sulfonylureas class of diabetic drugs.
  - insulin sensitizer class of diabetic drugs.
  - alpha-glucosidase inhibitor class of diabetic drugs.
11. Which of the following routine blood test are done during Antenatal care in Bhutan?
- Hemoglobin, HIV, HBsAg and Kidney function test.
  - Hemoglobin, HIV, Liver function test and ECG.
  - HIV, HBsAg, Hemoglobin and Rapid Plasma Reagin.
  - Rapid Plasma Reagin, Hemoglobin, HIV and Hepatitis C.
12. A 15 year old boy has pain in the right ear for 3 days. The pain subsided with purulent ear discharge an hour ago.  
What is the most appropriate antibiotic?
- Amoxicillin
  - Ciprofloxacin
  - Erythromycin
  - Clindamycin

13. Warning signs in dengue leading to critical phase or shock are:
- abdominal pain or tenderness, persistent vomiting, clinical fluid accumulation and mucosal bleed.
  - lethargy, restlessness, liver enlargement  $>2\text{cm}$  and fever.
  - increase in hematocrit, abdominal pain or tenderness, mucosal bleed and headache.
  - lethargy, restlessness, liver enlargement  $<2\text{cm}$  and ecchymosis.
14. Vitamin K dependent coagulation factors are:
- I, II, V and VII
  - II, VII, IX and X
  - I, II, V and X
  - II, V, VII and IX
15. A 30 year old lady has had a febrile illness and swelling of the small joints of her hands, feet, wrists and knees for 3 days. She has maculopapular rash and a few palpable, small cervical lymph nodes. There is no significant past medical history.  
What is the most likely diagnosis?
- Psoriasis
  - Reactive arthritis
  - Rheumatic arthritis
  - Systemic lupus erythematosus
16. A 16 year old girl has enlarging mass on the right side of her neck for the last 8 weeks with no other symptoms. She has two by two cm lymph node in the anterior triangle of the neck and several smaller cervical lymph nodes. Her tonsils are enlarged and covered by grey membrane.  
What is the most likely diagnosis?
- Leukaemia
  - Lymphoma
  - Infectious mononucleosis
  - Tuberculosis
17. The site most likely to yield gonococci in woman is
- the cervix
  - the urethra
  - posterior vaginal fornix
  - uterine wall
18. Pelvic inflammatory disease includes
- pelvic peritonitis, salpingo-oophoritis and endometritis.
  - pelvic peritonitis, salpingo-oophoritis and cervicitis.
  - pelvic peritonitis, cervicitis and urethritis.
  - pelvic peritonitis, salpingo-oophoritis and urethritis.

19. In primary syphilis
- all serological tests are usually positive early on.
  - the serological tests usually become positive in the sequence fluorescent treponemal antibody test (FTA), treponema pallidum haemagglutination test (TPHA), Venereal disease research laboratory test (VDRL).
  - the serological tests usually become positive in the sequence FTA, VDRL, TPHA.
  - the FTA is only positive late in primary syphilis.
20. Which of the following radiological investigations is the most harmful to the patient?
- Ultrasound
  - Magnetic Resonance Imaging
  - Computed Tomography
  - X Ray
21. The most common site for adult pyloric stenosis occurs in the
- first part of the duodenum.
  - second part of duodenum.
  - third part of duodenum.
  - fourth part of duodenum.
22. Fournier's gangrene is seen in the
- anal area.
  - scrotal area.
  - cervical area.
  - anal and cervical area.
23. Drug of choice in pregnancy with hypertension is
- hydrochlorothiazide.
  - losartan.
  - methyl dopa
  - nifedipine.
24. Lupus vulgaris is caused by
- mycobacterium tuberculosis.
  - mycobacterium leprae.
  - mycobacterium tuberculosis and leprae.
  - None of the above.
25. Dinner-fork deformity is present in
- galeazzi fracture.
  - colle's fracture.
  - scaphoid fracture.
  - smith's fracture.

26. Snow storm appearance in ultrasound is seen in
- anencephaly.
  - polyhydramnios.
  - hydatidiform mole.
  - dermoid cyst.
27. Signs and symptoms of cervical cancer are
- bleeding in between periods, bleeding after sexual act and foul smelling discharge.
  - bleeding in between periods, bleeding after sexual act and white discharge per vagina.
  - bleeding in between periods, foul smelling discharge and cervical erosion.
  - low abdominal pain, postmenopausal bleeding and rectal bleeding.
28. A classical sufferer from symptomatic gallstones is
- a fat, fertile, flatulent, female of forty.
  - a fat, fertile, flatulent, female of fifty.
  - a fat, fertile, flatulent, female of fifteen.
  - a fat, sterile, flatulent, female of fifty.
29. In dengue, the plasma leakage occurs during
- febrile phase.
  - critical phase.
  - recovery phase.
  - in any phase of the disease.
30. In our country children at 14 weeks are vaccinated with
- 3<sup>rd</sup> dose Pentavalent, 3<sup>rd</sup> dose OPV and measles vaccine.
  - 3<sup>rd</sup> dose Pentavalent, 3<sup>rd</sup> OPV and DTP vaccine.
  - 3<sup>rd</sup> dose Pentavalent, 3<sup>rd</sup> dose OPV and Inactivated polio vaccine.
  - 3<sup>rd</sup> dose pentavalent, inactivated polio vaccine and DTP.

**PART II – Short Answer Questions (20 marks)**

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

Write short notes on the following: (5x4=20 marks)

- Prevention of dengue.
- Immunization schedule of Bhutan.
- Management of acute cholecystitis.
- Medical management of peptic ulcer disease.

**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 40-year-old man developed abdominal pain and was taken to emergency department after 8 hours. He had fever and vomiting.

The doctor on duty in the emergency department learnt that the patient's pain started in the periumbilical area and now the pain is mostly on the right iliac area.

On examination, the patient was conscious, no pallor or icteric. Blood pressure was 90/50mmHg, pulse 120/minute and regular.

There was rebound tenderness in the right iliac fossa and bowel sounds were present.

Patient was not on any medications and had no similar history in the patient.

1. What is the most probable diagnosis of the case? (2 marks)
2. Name 5 positions of appendix. (5 marks)
3. Where is McBurney's point? (2 mark)
4. Write the clinical features of appendicitis. (15 marks)
5. What are the components of appendix mass? (3 marks)
6. Write 8 differential diagnosis of an appendix mass. (8 marks)
7. What is the name of the regime for management of an appendix mass? (2 marks)
8. How will you differentiate acute appendicitis and acute cholecystitis? (5 marks)
9. Write four criteria to stop conservative treatment? (4 marks)
10. Write about the acute appendicitis in pregnancy. (4 marks)

**Case II**

A 30-year-old multigravida had normal delivery at 41 weeks of gestation at JDWNR hospital. The placenta was delivered after 15 minutes of delivery and the blood loss was within normal limits. The condition of the baby was good and was breast fed within 30 minutes of delivery.

The immediate post-delivery blood pressure was 120/78mmHg and pulse rate was 88/minute. The abdomen was soft and the uterus was firm in consistency.

The patient complained of giddiness 1 hour after the delivery. The nurse on duty checked the blood pressure and was 80/60mmHg and there was profuse bleeding per vagina. The estimated blood loss was 1000 ml. The abdomen was soft and the uterus had become soft.

1. What is the diagnosis and define it. (3 marks)
2. What is the immediate management? (5 marks)

3. Mention 5 causes of post-partum hemorrhage (PPH). (5 marks)
4. What is the most likely cause of PPH in this patient? Give reasons. (3 marks)
5. How would you manage this patient? (10 marks)
6. Describe other PPH management for other causes. (10 marks)
7. Mention 3 risk factors for PPH and explain them. (3 marks)
8. How can PPH be prevented? (5 marks)
9. How would you prepare the patient for Hysterectomy? (6 marks)

**TASHI DELEK**