

**ROYAL CIVIL SERVICE COMMISSION
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2012
EXAMINATION CATEGORY: TECHNICAL**

PAPER III: SUBJECT SPECIALIZATION PAPER for MBBS

Date	: 14 October 2012
Total Marks	: 100
Examination Time	: 150 minutes (2.5 hours)
Reading Time	: 15 Minutes (prior to examination time)

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. Write your Roll Number clearly on the Answer Booklet in the space provided.
2. The first 15 minutes is being provided to check the number of pages, printing errors, clarify doubts and to read the instructions. You are NOT PERMITTED TO WRITE during this time.
3. Use either Blue or Black ink pen or ball point pen for the written part and Pencils for the sketches and drawings.
4. All answers should be written on the Answer Booklet provided. Candidates are not allowed to write anything on the question paper or any other materials.
5. It is divided into two sections-namely SECTION A and SECTION B.
6. SECTION A consists of two parts: Part I and Part II.
Part I consists of 30 Multiple-Choice Questions carrying one (1) mark each and is compulsory. The answer of your choice should be clearly written in whole along with the question and option number on your answer booklet. Eg. 31(c).
Part II consists of four (4) short answer questions of five (5) marks each and all questions are compulsory.
7. SECTION B consists of two Case Studies. Choose only ONE case study and answer the questions under your choice. Each case study carries fifty (50) marks in total.
8. This Paper consists of twelve (12) pages including this Instruction page.

PART I - Multiple Choice Questions

Choose the correct answer and write down the letter of the correct answer chosen in the Answer Sheet against the question number. E.g. 31 (c). Each question carries ONE mark.

1. The differential diagnosis of Right Iliac fossa pain includes the following **except**
 - a) Tubo ovarian mass
 - b) Acute pyelonephritis
 - c) Empyema of the gallbladder
 - d) Splenic vein thrombosis

2. The **commonest** form of hernia in females is
 - a) Inguinal hernia
 - b) Femoral hernia
 - c) Incisional hernia
 - d) Epigastric hernia

3. In the management of red eye (conjunctivitis) following are true **except**
 - a) Antibiotic eye ointment can be used
 - b) Oral Antihistamine are indicated sometimes
 - c) Oral antibiotics are usually prescribed
 - d) Patient should use individual handkerchief

4. A 45 yr old man complains of acute epigastric pain radiating to his back. He has vomited repeatedly. On examination his abdomen is tender. His temperature is 38.5°C and serum amylase is 1856U/L. The **most likely** diagnosis in this patient is
 - a) Acute appendicitis
 - b) Acute pancreatitis
 - c) Acute Gastritis
 - d) Acute Cholecystitis

5. When you assess a breast lump, you will do all the following **except**
- a) Clinical Examination
 - b) Mammogram
 - c) Mastectomy
 - d) Punch biopsy
6. Colonic pseudo-obstruction can be caused by all of the following **except**
- a) Systemic illness
 - b) Electrolyte imbalance
 - c) Hypothyroidism
 - d) Fecal impaction
7. The **most common** site of ectopic pregnancy is
- a) Ampulla
 - b) Isthmus
 - c) Fimbrial end
 - d) Abdomen
8. Second degree uterovaginal prolapse is characterized by
- a) Complete protrusion of uterus outside the introitus
 - b) Descent of genital tract within the vagina
 - c) Descent of genital tract up to the introitus
 - d) Descent of genital tract outside the introitus
9. The **most likely** diagnosis of a women presenting with whitish vaginal discharge with fishy smell is
- a) Candiadiasis
 - b) Bacterial vaginosis
 - c) Trichomoniasis
 - d) Urinary tract infection

PAPER III: SUBJECT SPECIALIZATION PAPER for MBBS (Technical)

10. A primigravida patient at 34 weeks of gestation presents with a history of loss of foetal movements for 24 hours. She should undergo
- induction of labour immediately
 - Urgent antenatal cardio-tocography (CTG)
 - Ultrasound scan
 - All of above
11. **Best sign** for the diagnosis of true labour pain is
- Dilatation of cervix
 - Softening and thinning of cervix (effacement)
 - Presence of show
 - None of above
12. Among the following jaw cyst, which is pre-malignant?
- Radicular Cyst
 - Dental Cyst
 - Odontogenic keratocyst
 - Dentigerous Cyst
13. **Most common** cause of Pulsus Paradoxus is
- Cardiac tamponade
 - Constrictive pericarditis,
 - Severe asthma,
 - Severe pulmonary embolism
14. Which of the following statements is **wrong** for enteric fever
- Salmonella typhi* and *Salmonella paratyphi* A,B and C are exclusive human pathogens
 - Vaccination is not effective against *Salmonella paratyphi* A, B and C
 - Widal test is the gold standard for diagnosis
 - Infections can complicate multiple systems

15. All of the following are true for Hepatitis B infections **except**
- a) It can cause malignancy
 - b) Transmission is higher in HBe antigen negative patients
 - c) Horizontal transmission between family members is a risk factor
 - d) Genotype of the virus influences a lot on the treatment modalities and outcome
16. Pulmonary Tuberculosis is classified as **smear positive** if
- a) At least two sputum smears are positive for AFB under direct microscopy
 - b) One sputum specimen is positive for AFB under direct microscopy
 - c) Three sputum negative for AFB but culture is positive for TB bacilli
 - d) All of above
17. Patient presents with Dysphagia with tremor, ataxia and balance disturbance. The **most** likely cause could be
- a) Parkinson's disease
 - b) Myasthenia gravis
 - c) Motor neuron disease
 - d) All of above
18. Medical and Health Council Act of Kingdom of Bhutan was enacted in the year
- a) 1999
 - b) 2004
 - c) 2002
 - d) 2010
19. All of the following are features of prematurity in a neonate **except**
- a) Abundant lanugo hair
 - b) Empty scrotum
 - c) No crease on sole
 - d) Thick ear cartilage

PAPER III: SUBJECT SPECIALIZATION PAPER for MBBS (Technical)

20. Which one of the following is **not a cause** of secondary immune deficiency disorder?
- a) Human immunodeficiency virus (HIV)
 - b) Drug therapy
 - c) Antibody deficiency
 - d) Chronic renal disease
21. All of the following are expected in infants of diabetic mothers except
- a) Large baby
 - b) Hyperglycemia
 - c) Hypocalcaemia
 - d) Respiratory distress syndrome
22. Persistent Moro's reflex after 16 weeks indicate
- a) Normal Infant
 - b) Brain Damage
 - c) Hungry infant
 - d) None of the above
23. Following vaccinations are available in the national immunization program **except**
- a) BCG
 - b) MMR
 - c) DPT
 - d) Polio
24. After lifting something heavy from ground, a patient complaints of back pain, which is radiating to lateral leg and great toe of lower limb. **Most probable** diagnosis would be
- a) L5-S1 disc prolapse
 - b) L4-L5 disc prolapse

- c) L3-L4 disc prolapse
- d) L5 fracture

25. A newborn child presents with inverted foot and the dorsum of the foot and cannot touch the anterior tibia. The most probable diagnosis is

- a) Congenital Vertical Talus
- b) Arthrogryposis Multiplex
- c) CTEV
- d) Flat Foot

26. Maximum Radiation exposure occurs in

- a) CT scan
- b) C.X-ray
- c) Bone Scan
- d) MRI

27. Dermatologic condition that present with annular lesion is

- a) Granuloma Annulare
- b) Some Drug Eruptions
- c) Secondary Syphilis
- d) All of above

28. Common cause of chronic ear pain(> 2 to 3 wk), is

- a) TMJ dysfunction
- b) Chronic eustachian tube dysfunction
- c) Chronic otitis externa
- d) All of above

29. Drug used in alcohol detoxification is

- a) Amitriptyline
- b) Diazepam

PAPER III: SUBJECT SPECIALIZATION PAPER for MBBS (Technical)

- c) Promethazine
 - d) Hydrochlorothiazide
30. The pathological changes in sarcoidosis include all the following **except**
- a) tubercles containing epithelioid cells
 - b) tubercles with central areas of necrosis
 - c) giant cells containing calcified inclusions
 - d) rise in serum globulin

PART – II : Short Answer Questions (20 marks)

Answer ALL the questions. Each question carries 5 marks.

1. How do you differentiate between postmortem staining and bruise?
2. Define “Multi-drug resistant Tuberculosis”. Name the “second line” anti TB drugs used in Bhutan.
3. Describe briefly the management of hypovolemic shock.
4. Describe briefly the management of Ante-Partum Haemorrhage?

SECTION B : Case Study

Choose either Case Study 1 or Case Study 2 from this section. Each Case carries 50 marks. Mark for each sub-question is indicated in the brackets.

CASE STUDY 1

Question 1.1

(10 Marks)

Mr. Penjor, a 65 year old male has noted increasing fatigue and malaise for the past 1-2 months. He has fever that reaches about 100.6°F. He also notes some new lesions on his arms and nails. He finally came to the doctor when he developed red, painful swelling on the dorsum of his left foot. The doctor notes Roth spots in both eyes and a loud mitral insufficiency murmur. The patient has a longstanding history of mitral valve prolapse.

- a) What is Mr. Penjor's most probable clinical diagnosis? (1 marks)
- b) List the investigations you will do for Mr. Penjor. (2 marks)
- c) If you decide to treat Mr. Penjor, what will be the empiric therapy as per your diagnosis? (2 marks)
- d) If the diagnosis is confirmed by all investigations, how long will you continue the definitive treatment for Mr. Penjor? (2 marks)
- e) List the complications of this infection. (2 marks)
- f) What is the name of the diagnostic criteria used in this condition? (1 marks)

Question 1.2

(10 Marks)

A 42 yr old woman comes to you with Blood pressure reading of 150/90 mmHg. This is her first visit and she has no major complaints.

- a) What will you do or advice the patient? (1 mark)
- b) Which is more reliable or less likely to vary from one visit to another, Systolic or diastolic pressure? (1 mark)
- c) What are the non-pathological factors that may cause variations in BP measurement? (4 marks)
- d) When will you decide to start treatment in this patient? (2 marks)
- e) Name two basic anti-hypertensive drugs available in Bhutan till district hospital. (2 marks)

PAPER III: SUBJECT SPECIALIZATION PAPER for MBBS (Technical)

Question 1.3

(10 Marks)

A 16 yr old boy presents to the emergency department with pain in the right iliac fossa for two days. He has fever and vomited few times. On examination he has severe tenderness in the right lower quadrant of the abdomen.

- a) What is the most probable diagnosis in this patient? (1 mark)
- b) What investigations will you do for this patient? (2 marks)
- c) What would be the first characteristic symptom in this case? (2 marks)
- d) Outline the management of this patient. (3 marks)
- e) List the complications that might arise if this is not managed properly. (2 marks)

Question 1.4

(10 Marks)

A 25 year old man presents in your OPD with dysuria and white pus like discharge from the urethra. He had unprotected sexual contact with an unknown lady few days back.

- a) What is the clinical diagnosis for this patient? (1 mark)
- b) What is the causative organism for this infection? (1 mark)
- c) List the laboratory investigations you will do for this patient? (2 marks)
- d) What are the general principles of treating sexually transmitted infections? (3 marks)
- e) Outline the Syndromic management of this patient. (3 marks)

Question 1.5

(10 Marks)

A 25 yr old female and a 28 year old male have been married for the last 3 yrs. They do not have any children till now and come to you for consultation.

- a) What is the condition called? (1 mark)
- b) What are the conditions required to fulfill the definition of this condition? (2 marks)
- c) List the basic investigations available in Bhutan, that you will advice for this couple. (3 marks)
- d) What are the options available for this couple to have a baby? (2 marks)
- e) If the couple had one child and they failed to conceive after that what will you call this condition? (2)

CASE STUDY 2

Question 2.1

(10 Marks)

A 2 yr old child presents to the OPD with fever, headache, vomiting and neck stiffness for duration of 3 days.

- a) What investigations will you advice for this child? (2 marks)
- b) How will you differentiate between bacterial and viral causes of this infection? (2 marks)
- c) What is the empirical treatment you will start if you are in a district hospital? (2 marks)
- d) What are the common bacterial causes of such conditions? (2 marks)
- e) What are the vaccines available to prevent such infections? (2 marks)

Question 2.2

(10 Marks)

A 46 yr old female who is being ventilated in the ICU develops high fever and radiologic changes in the Chest X-ray after 48 hrs of ventilation. She is said to have pneumonia.

- a) How will you classify this pneumonia? (2 marks)
- b) What are the commonest bacterial agents involved in such pneumonias. (2 marks)
- c) List down the preventive methods of such pneumonia. (4 marks)
- d) What are the samples you will send for investigation of this patient? (2 marks)

Question 2.3

(10 Marks)

A 35 yr old man had a fire accident and suffered from burn. You were the Medical Officer on duty when he arrived at the hospital.

- a) What are the priorities in the management of this patient? (3 marks)
- b) How do you classify burn? (3 marks)
- c) List the complications in such patients. (2 marks)
- d) List the types of skin grafts in surgical practice. (2 marks)

PAPER III: SUBJECT SPECIALIZATION PAPER for MBBS (Technical)

Question 2.4

(10 Marks)

A 27 year old female presents to the OPD with pain in the suprapubic area, dysuria and fever for 2 days. She has been having the same problems repeatedly over the last 3 years.

- a) What is your probable diagnosis for this lady? (1 marks)
- b) What investigations will you do for this patient? (2 marks)
- c) What are the common causes of such infections? (2 marks)
- d) What treatment and behavioral changes options are available for this patient? (3)
- e) List the antibiotics available in Bhutan for this condition? (2 marks)

Question 2.5

(10 Marks)

A 21 yr old female who is pregnant for 24 weeks comes for Ante natal booking to your hospital. This is her first pregnancy.

- a) What are the examinations and investigations you will do for her in this first visit? (4 marks)
- b) If you find that the baby is in breech position at this time what will you do or advice her? (2 marks)
- c) What are the usual medical supplements given during the pregnancy in Bhutan? (2 marks)
- d) If you did an ultrasound scan and she wanted to know the sex of the baby. You found out that the baby is male, what will you tell her? (2 marks)