**ROYAL CIVIL SERVICE COMMISSION**  
**BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2013**  
**EXAMINATION CATEGORY: TECHNICAL**

**PAPER III: SUBJECT SPECIALIZATION PAPER for**  
**MBBS + SPECIALIZATION IN GENERAL SURGERY**

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**Date**: 14 October 2013  
**Total Marks**: 100  
**Examination Time**: 150 minutes (2.5 hours)  
**Reading Time**: 15 Minutes (prior to examination time)

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### GENERAL INSTRUCTIONS:

1. Write your Roll Number clearly and correctly on the Answer Booklet.
2. The first 15 minutes is being provided 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 and 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 under your choice.
4. 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 any or correct Section, Part and Question Number will NOT be evaluated and no marks would be awarded.
5. Begin each Section and Part in a fresh page of the Answer Booklet.
6. You are not permitted to tear off any sheet(s) of the Answer Booklet as well as the Question Paper.
7. Use of any other paper including paper for rough work is not permitted.
8. You are required to hand over the Answer Booklet to the Invigilator before leaving the examination hall.
9. This paper has **07** printed pages in all, including this instruction page.

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**GOOD LUCK!**

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SECTION A
PART I - Multiple Choice Questions (30 Marks)

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

1. The resection of the last 12cm of the ileum causes:
   a) Megaloblastic anaemia
   b) Constipation
   c) Dumping syndrome
   d) Increased bile excretion in faeces

2. Total gastrectomy results in:
   a) Decreased fat absorption
   b) Decreased iron absorption
   c) Decreased protein absorption
   d) Hemodilution

3. The effects of splenectomy include:
   a) Thrombocytopenia
   b) Leukaemia
   c) Predisposed to infection
   d) Prolonged PT

4. Teratoma of the testis is derived from:
   a) Sertoli cells
   b) Primary spermatocytes
   c) Interstitial cells
   d) Undifferentiated germ cells

5. Which of the following is not true for ureterosigmoid anastomosis:
   a) Ascending infection causing pyelonephritis
   b) Absorption of urea from colon
   c) Absorption of ammonium salts
   d) Hyperkalaemia

6. Regarding renal calculi:
   a) Maybe a complication of hyperparathyroidism
   b) Oxalate stones are usually due to metabolic disorder
   c) Xanthine stone characteristically have a sharp surface
   d) Can be predisposed by glomerulonephritis
7. Which is not true regarding medial circumflex femoral artery?
   a) May arise from the femoral artery
   b) The ascending branch anastomose with the inferior gluteal artery
   c) Passes between quadrates femoris and piriiformis
   d) Passes between pectineus and psoas

8. Regarding the bile duct which of the following is not true:
   a) The portal vein is posterior thereto
   b) The IVC is posterior thereto
   c) Lies on the right of hepatic artery proper
   d) Is formed by the right and left hepatic ducts

9. Which of the following is true regarding Ulnar nerve:
   a) Supplies part of flexor digitorum superficialis
   b) Supplies adductor pollicis
   c) Is lateral to the brachial artery in the arm
   d) Passes deep to the flexor digitorum superficialis

10. Which of the following is not an anterior relation of the right kidney:
    a) The right suprarenal gland
    b) Hepatic flexure of the colon
    c) 3rd part of the duodenum
    d) Loops of the small intestine

11. Which of the following is not a major pathogen in postoperative chest infection?
    a) *Haeophilus influenza*
    b) *Streptococcus pyogenes*
    c) *Staphylococcus aureus*
    d) *Streptococcus pneumonia*

12. Which of the following is true for blood which is to be used for transfusion?
    a) Should be stored at -4degree centigrade
    b) May need to be irradiated (1000r)
    c) Needs to be tested for complement content
    d) Maybe used after storage for platelet replacement

13. Which of the following is true following a major surgical operation?
    a) A negative nitrogen balance
    b) Potassium retention
    c) A negative sodium balance
    d) A decreased tendency for the blood to clot
14. Lumbar sympathectomy is useful in all except:
   a) Ulcerative colitis
   b) Subcutaneous emphysema
   c) Fracture
   d) All of the above

15. The best wound dressing is:
   a) Swab
   b) Calcium alginate
   c) Skin
   d) Aerosol spray

16. Jaundice during parenteral nutrition is due to:
   a) Cholestasis
   b) Hepatitis
   c) CBD stones
   d) Haemolysis

17. Colonic perforation is imminent when the diameter of the transverse colon exceeds:
   a) 3.3 cm
   b) 4.5 cm
   c) 5.5cm
   d) 6.5 cm

18. All are signs of arterial disorders except:
   a) Claudication
   b) Rest pain
   c) Numbness
   d) Palpitation

19. In tongue cancer the least affected site is:
   a) Lateral margin
   b) Ventral margin
   c) Dorsal surface
   d) Posterior third

20. Which of the rectal prolapse surgeries is not through the abdominal approach:
   a) Well’s operation
   b) Delome’s operation
   c) Ripstein’s operation
   d) Lahaut’s operation
21. After laparotomy the bowel sounds commonly return on:
   a) First day
   b) Second day
   c) Third day
   d) Fourth day

22. The claw sign in barium enema is suggestive of:
   a) Volvulus
   b) Intussusception
   c) Chron’s disease
   d) None of the above

23. The most common cause of intestinal obstruction is:
   a) Adhesion
   b) Obstructed hernia
   c) Cancer
   d) Inflammation

24. Rupture of urethra commonly involves which part:
   a) Bulbar
   b) Prostatic
   c) Membranous
   d) Penile

25. Bile excretion from liver per hour is
   a) 10ml
   b) 20ml
   c) 30ml
   d) 40ml

26. Mercedes Benz sign in gall stone disease is indicative of:
   a) Mucin
   b) Gas
   c) Bacteria
   d) Calcification

27. Eye opening of Glasgow coma scale has a maximum score of:
   a) 2
   b) 3
   c) 4
   d) 5
28. Metastatic brain tumours commonly originate from
   a) Liver
   b) Lung
   c) Melanoma
   d) Breast

29. Zenker’s Diverticulum occurs in
   a) Upper oesophagus
   b) Middle oesophagus
   c) Lower oesophagus
   d) Anywhere in oesophagus

30. Posterior Urethral valves are best diagnosed by
   a) MCU
   b) Urethroscopy
   c) Ultrasound
   d) MRI

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

Answer ALL the questions. Each question carries 5 marks.

1. Write in brief the physiological changes during laparoscopic surgery?

2. What is thyroid storm? How will you manage a case of thyroid storm per-operatively?

3. How will you manage a case of BPH medically?

4. What is septic shock? Outline its pathophysiology?
SECTION B
Case Study

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

CASE 1

A 35 year old man involved in RTA is brought to the emergency department and you have been asked to attend to the patient.

i) How will you proceed to manage this patient? (10 Marks)

ii) What is tension pneumothorax? Discuss the causes and management? (10 Marks)

iii) Classify Liver injuries and discuss their management (10 marks)

iv) Write short notes on the following:
   a) FAST (5 marks)
   b) Glasgow Coma Scale (5 marks)
   c) Damage Control Surgery (5 marks)
   d) Radial Nerve Injury (5 marks)

CASE 2

A 60 year old man presents with features of obstructive jaundice to you.

i) Discuss the causes and pathophysiology of obstructive jaundice (10 Marks)

ii) Classify Cholangiocarcinoma and discuss its management (10 Marks)

iii) Discuss the surgeries in chronic pancreatitis (10 marks)

iv) Write short notes on the following:
   a) Mirrizi’s syndrome (5 marks)
   b) Bilirubin Metabolism (5 marks)
   c) Hepatorenal syndrome (5 marks)
   d) Child Pugh criteria (5 marks)