

Sikkim Public Service Commission
Main Written Examination for the Post of Sub Inspector
PAPER - II MEDICAL SCIENCES

Time allowed: 3.00 Hrs

Maximum Marks: 250

INSTRUCTION TO CANDIDATES

Read the instructions carefully before answering the questions: -

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Use only Black Ball Point Pen to fill the OMR Sheet.
3. Do not write anything else on the OMR Answer Sheet except the required information.
4. This Test Booklet contains 50 questions in MCQ Mode in Part I to be marked in OMR Sheet. Part II and Part III are Subjective Questions which have to be written on separate answer sheet provided to you.
5. Before you proceed to mark in the Answer Sheet (OMR), you have to fill in some particulars in the Answer Sheet (OMR) as per given instructions.
6. After you have completed filling in all your responses on the Answer Sheet (OMR) and the examination has concluded, you should hand over the Answer Sheet (OMR) and separate answer sheet to the Invigilator only. You are permitted to take with you the Test Booklet.
7. **Marking Scheme**

THERE WILL BE NEGATIVE MARKING FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTIONS

- i. There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to the question will be deducted as penalty.
- ii. If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to the question.
- iii. If a question is left blank. i.e., no answer is given by the candidate; there will be no penalty for that question.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

PART - I

Choose the correct answer for the following questions:

(3x50=150)

1. **All are true about tracheostomy tube except -**
 - A. Consists of two metallic tubes
 - B. Tubes are made up of silver alloy and titanium
 - C. Metal tubes are ideally changed every 3 days
 - D. Cuffed tubes are used for IPPV
2. **Nerve supply of the tympanic membrane is by all of following except -**
 - A. Auriculotemporal nerve
 - B. Auricular branch of Vagus
 - C. Occipital nerve
 - D. Great auricular nerve
3. **Rigor mortis is first seen in-**
 - A. Heart
 - B. Eye lid
 - C. Face
 - D. Heart
4. **Spalding Sign is seen in-**
 - A. Maceration
 - B. Adipocere
 - C. Mummification
 - D. Rigor mortis
5. **Regarding shotgun injuries, as distance increases, the pellets begin to diverge. Between approx 1-3 meters pellets cause:-**
 - A. Multiple satellite puncture wounds surrounding a larger central hole.
 - B. Pellets are still traveling as a compact mass
 - C. Multiple small puncture wounds with no large central hole
 - D. Multiple small puncture wounds with multiple central holes
6. **Which of the following statements about herpes zoster is true -**
 - A. It is not contagious .
 - B. Recurrences are common.
 - C. Incidences increases with age.
 - D. It is defined by a vesicular eruption.
7. **Which one of the following IV Fluids is the best for treating a severe case of cholera?**
 - A. 5% dextrose solution
 - B. Diarrhoea treatment solution
 - C. Normal saline
 - D. Ringer lactate solution

8. **A 45- year - old man presents with sudden onset breathlessness and chest pain. Examination revealed tachypnoea, cyanosis, hypotension, raised JVP, widely split second heart sound and right ventricular gallop .What is the most likely diagnosis ?**
 - A. Acute myocardial infarction with cardiogenic shock
 - B. Acute pericarditis
 - C. Massive pulmonary embolism
 - D. Pneumothorax
9. **Most common complication of Hiatal hernia is-**
 - A. Esophagitis
 - B. Aspiration pneumonitis
 - C. Volvulus
 - D. Esophageal stricture
10. **Which of the following features on mammogram would suggest malignancy-**
 - A. Well defined lesion
 - B. A mass of decreased density
 - C. Areas of speculated microcalcification
 - D. Smooth borders
11. **In diagnosing Mullerian Anomalies, which of the following tools is most accurate-**
 - A. HSG
 - B. MRI
 - C. Saline infusion sonography
 - D. 2D Transvaginal ultrasound
12. **If twin A is in a transverse lie and twin B is vertex , the most appropriate route of delivery is-**
 - A. Cesarean section
 - B. Internal podalic version followed by breech extraction
 - C. Both
 - D. Either
13. **Anosmia in a patient with poorly developed secondary sexual characteristics , should suggest a diagnosis of -**
 - A. Isolated LH deficiency
 - B. Hemochromatosis
 - C. Kallman' s Syndrome
 - D. Laurence-Moon -Bardet- Biedel Syndrome
14. **Low dose containing OCPs have estrogen concentration in the range of -**
 - A. 5 -10 microgram
 - B. 20- 30microgram
 - C. 40-microgram
 - D. 50-microgram

15. All are Mesonephric (Wolffian) remnants except -
A. Gartner's duct
B. Ovarian ligament
C. The epoophoron
D. The paroophoron
16. For Down's Syndrome 2nd trimester quadruple test includes all except -
A. Alfa fetal protein
B. HCG
C. Inhibin-A
D. PAPP
17. Lower most portion of presenting fetal part at ischial spines means station -
A. -1
B. 0
C. +1
D. None
18. What is not developed from paramesonephric ducts ?
A. Uterus
B. Upper vagina
C. Hymen
D. Cervix
19. In which condition postpartum hemorrhage will not occur:-
A. Preterm labour
B. Cervical laceration
C. Prolonged labour
D. Over distension of uterus
20. Elevation of unconjugated (indirect) bilirubin is most commonly seen in which one of the following-
A. Biliary obstruction
B. Crigler-Najjar syndrome
C. Cholestasis
D. Hepatitis
21. Which of the following is a cause of extravascular hemolysis -
A. Falciparum malaria
B. Sickle cell disease
C. Mismatched blood transfusion
D. Microthrombi in circulation
22. A 10 year -old boy developed pharyngitis due to B -Hemolytic Streptococci. It subsided after a few days of penicillin therapy. Two weeks later his eyelids become puffy , he had fever ,elevated blood pressure and gross hematuria. The likeliest diagnosis is -
A. Acute proliferative glomerulonephritis
B. Antiglomerular basement membrane disease
C. Minimal change disease
D. Rapidly progressive glomerulonephritis

23. A 30- Year –old man presents with mild gastroenteritis a few days after having sea food in a party. There is no blood or pus in the stool .Culture grown in Wagatsuma agar. Which causative agent is most likely to have caused this illness?
- Vibrio cholera
 - Vibrio parahaemolyticus
 - Salmonella
 - Shigella sonnei
24. A patient who presents to the hospital with severe headaches develops convulsions and dies. At autopsy the brain grossly has a 'Swiss cheese' appearance due to the presence of numerous small cysts containing milky fluid. Microscopically, a scolex with hooklets is found within one of these cysts. What is the causative agent for this disease?
- Taenia saginata
 - Taenia solium
 - Diphyllobothrium latum
 - Echinococcus granulosa
25. Infraclavicular lesion of tuberculosis is known as -
- Gohn' s focus
 - Puhl 's focus
 - Assman' s focus
 - Simmon 's focus
26. Parts of fallopian tube from ovary to uterus are-
- Infundibulum – Isthmus –Ampulla -Intramural
 - Ampulla -Isthmus-Intramural - Infundibulum
 - Infundibulum – Ampulla - Isthmus- Intramural
 - Isthmus- Ampulla – Infundibulum -Intramural
27. Which of the following is not a non-sedative anti-allergic drug ?
- Cetizine
 - Astemizole
 - Terfenadine
 - Tripolidine
28. Ketogenesis in starvation is due to -
- Low level of oxaloacetate
 - Decreased protein synthesis
 - Low level of ATP
 - Low level of NADH
29. Circadin rhythm is controlled by?
- Suprachiasmatic nucleus
 - Median eminence
 - Pramedian nuclei
 - Supraoptic nuclei

30. Schizophrenia is characterized by all of the following symptoms that occur during a 1 month period except-
- A. Hallucinations
 - B. Disorganized speech
 - C. Delusions
 - D. Disorientation
31. The mainstay of treatment in acute bronchial asthma is
- A. Local acting steroids
 - B. Local acting beta-2 agonists
 - C. Theophylline
 - D. Oral steroids
32. Coronary angiography can visualize vessels with lumen up to -
- A. 5mm
 - B. 1mm
 - C. 0.5mm
 - D. 0.1mm
33. Polycythemia is seen in-
- A. Bronchial asthma
 - B. Cor pulmonale
 - C. Vitamin D excess
 - D. CCF
34. Presence of Visual Hallucination suggests-
- A. Schizophrenia
 - B. Organic brain syndrome
 - C. Psychotic Depression
 - D. Hysteria
35. An absolute contraindication to ECT is -
- A. Third trimester of pregnancy
 - B. Lack of peripheral cholinesterase enzyme
 - C. Recent coronary thrombosis
 - D. Raised intracranial tension
36. In Subdural hematoma the bleeding results from rupture of -
- A. Middle Meningeal Artery
 - B. Bridging Veins
 - C. Venous Sinuses
 - D. External Carotid Artery
37. A young male presented with dyspnea, bleeding and petechial hemorrhage in the chest after 2 days, following fracture shaft of the femur right side. Most likely cause is -
- A. Air embolism
 - B. Fat embolism
 - C. Pulmonary thrombo-embolism
 - D. Amniotic fluid embolism

38. **Formula for calculating IV fluids for Burn is-**
- A. Total % body surface area x weight (Kg) x 4= volume (ml)
 - B. Total % body surface area x weight (Kg) x 5= volume (ml)
 - C. Total % body surface area x weight (Kg) x 6= volume (ml)
 - D. Total % body surface area x weight 9Kg0 x 7= volume (ml)
39. **Which of the following facilitates would healing -**
- A. Ascorbic acid
 - B. Zinc
 - C. Vitamin A
 - D. Selenium
40. **In erect posture commonest site of foreign body in bronchus-**
- A. Right posterior basal
 - B. Right anterior basal
 - C. c. Lateral basal
 - D. d. Medial basal
41. **All of the following are characteristic features of Kwashiorkor except-**
- A. High blood osmolarity
 - B. Hypoalbuminemia
 - C. Edema
 - D. Fatty liver
42. **Onset of action of ketamine is within-**
- A. 30 seconds
 - B. 30 to 60 seconds
 - C. 2 mins
 - D. 3 mins.
43. **In acute Congestive glaucoma, pupil is -**
- A. Oval and horizontal
 - B. Oval and vertical
 - C. Circular
 - D. Slit like
44. **Which of the following is the commonest presenting complaint in chronic osteomyelitis.**
- A. Severe pain
 - B. High fever
 - C. Joint stiffness
 - D. Chronic discharging sinus
45. **Calculate the crude birth rate if TFR IS 2.3:**
- A. 20.4
 - B. 19.4
 - C. 21.0
 - D. Cannot be calculated

46. What is the maximum permissible level of occupational exposure to ionizing radiation per year to the whole body of an individual, as set by the international commission of radiological protection?
- A. 2 rad
 - B. 3rad
 - C. 5 rad
 - D. 8 rad
47. Lichen planus is characterized by-
- A. Excoriations
 - B. Impetiginization
 - C. Hypopigmentation
 - D. Frequent mucosal involvement
48. A term infant is born to a known HIV positive mother. She has been taking antiretroviral medications prior to delivery. Routine management of the healthy infant should include:
- A. Admission to neonatal ICU for close monitoring
 - B. HIV ELISA on the infant to determine if congenital infection has occurred
 - C. A course of Zidovudine for the infant
 - D. Chest radiographs to evaluate congenital pneumocystiscarinii
49. Treatment of choice for otosclerosis in a young person is:
- A. Hearing aid
 - B. Stapedectomy
 - C. Stapes mobilization only
 - D. Fenestration operation
50. Passage of the larva to the lungs is seen in the life cycle of:
- B. Ankylostomaduodenale
 - C. Ascarislumbricoids
 - D. Shistosomiasis

PART - II

Attempt ANY TWO questions :

(25X 2=50)

- 1 What are the fluid, metabolic and biochemical changes in a child with Dengue? Discuss underlying pathophysiology and management.
- 2 Write down the differential diagnosis of leg ulcers. Describe etiopathogenesis and management of Diabetic Ulcer.
3. Define Hypertensive Disorders of Pregnancy (HDP). Give its classification and management of Eclampsia.
4. Write notes on:-
 - A. T - Lymphocytes
 - B. Steps in spermatogenesis
5. Define inflammation. Describe major events of acute inflammation with a note on its outcome.

PART - III

Attempt ANY FIVE questions

(10X 5=50)

- 1 Describe the advantages and methods of giving Kangaroo Mother Care (KMC). Enlist metabolic consequences of hypothermia.
 - 2 Write short notes on:-
 - (a) Lymphatic drainage of breast
 - (b) Normal wound healing
 - 3 Describe the causes of Secondary Infertility.
 - 4 Write a brief note on National Family Welfare program and contraceptives available in it.
 - 5 Enumerate complications related to blood transfusion.
 - 6 Write a short note on Antiphospholipid Syndrome
 - 7 Discuss vector control methods of malaria. Add a note on its limitation.
 - 8 Discuss Pradhan Mantri Swasthya Suraksha Yojna (PMSSY).
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