

SEAL

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

Booklet Serial No.

Test Booklet Series

000412

TEST BOOKLET - 2020
MEDICAL OFFICER
(01)

D

Time Allowed: Two Hours

Maximum Marks: 100

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST 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. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet/Response Sheet. Any omission/discrepancy will render the Answer Sheet/Response Sheet liable for rejection.
3. You have to enter your Roll Number on the
Test Booklet in the Box provided alongside.
DO NOT write *anything else* on the Test Booklet.
4. This Test booklet contains **100** items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Answer Sheet/Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer Sheet/Response Sheet provided. See directions in the Answer Sheet/Response Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet/Response Sheet, the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet/Response Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet/Response Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer Sheet/Response Sheet**. You are permitted to take away with you the Test Booklet and **Candidate's Copy of the Answer Sheet/Response Sheet**.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. While writing Centre, Subject and Roll No. on the top of the Answer Sheet/Response Sheet in appropriate boxes use **"ONLY BALL POINT PEN"**.

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

01-D/2020

(1)

SEAL

SEAL

[REDACTED]



INSTRUCTIONS

[REDACTED]

INSTRUCTIONS

1. The purpose of this document is to provide instructions for the use of the system. It is intended for use by all personnel who are responsible for the operation of the system.

2. The instructions are divided into two main sections: General Instructions and Specific Instructions. The General Instructions provide a general overview of the system and its operation. The Specific Instructions provide detailed instructions for the use of the system.

[REDACTED]

3. The instructions are intended to be used by all personnel who are responsible for the operation of the system. It is important that all personnel read and understand the instructions before using the system.

4. The instructions are intended to be used by all personnel who are responsible for the operation of the system. It is important that all personnel read and understand the instructions before using the system.

5. The instructions are intended to be used by all personnel who are responsible for the operation of the system. It is important that all personnel read and understand the instructions before using the system.

[REDACTED]

Q.1) Consider the following pairs:

- | | |
|----------|---|
| a) MRI. | 1) Modality of choice for evaluation of lung diseases |
| b) CT | 2) Modality of choice for evaluation of intracranial lesions |
| c) USG | 3) Modality of choice for evaluation of metastatic disease |
| d) PETCT | 4) Modality of choice for evaluation of endometrial pathologies |

Which of the following pairs are correctly matched?

- A) a-1, b -2, c- 3, d- 4
B) a-3, b -2, c- 1, d- 4
C) a-4, b -3, c- 2, d- 1
D) a-2, b -1, c- 4, d- 3

Q.2) Match the following laryngeal muscles with their function:

- | Laryngeal Muscle | Function |
|-----------------------------|----------------------------------|
| a) Lateral Cricoarytenoid. | 1) Lengthening of the vocal cord |
| b) Posterior Cricoarytenoid | 2) Shortening of the vocal cord |
| c) Thyroarytenoid | 3) Abduction of the vocal cord |
| d) Cricothyroid. | 4) Adduction of the vocal cord |

The correct matches of the above is:-

- A) a-2, b-4, c-1, d-3 B) a-3, b-4, c-2, d-1
C) a- 4, b-3, c-2, d-1 D) a-2, b-1, c-4, d-3

Q.3) Match the following:

- | Malignancy | Etiology |
|--------------------------|------------------------------------|
| a) Carcinoma Oropharynx | 1) Human Herpes Virus 8 |
| b) Carcinoma Nasopharynx | 2) Human Papilloma Virus 16 and 18 |
| c) Merkel Cell carcinoma | 3) Epstein Barr Virus |
| d) Kaposi sarcoma | 4) Human Cell Polyoma Virus |

The correct matches of above are:-

- A) a-2, b-3, c-4, d-1
B) a-4,b-3, c-1, d-2
C) a-1, b-3, c-2, d-4
D) a-3, b-2, c-1, d-4

Q.4) Consider the pairs given below:

Intra-uterine Contraceptive Devices	Pregnancy rate (%)
a) TCU-200	1) 1.3-1.6
b) TCU-380A	2) 0.5-0.8
c) Progesterone IUD	3) 0.2
d) Levonorgestrel IUD	4) 3

Which of the following correctly matches above pairs

- A) a-1, b-4, c-2, d-3
- B) a-4, b-1, c-3, d-2
- C) a-1, b-4, c-3, d-2
- D) a-4, b-2, c-1, d-3

Q.5) Consider the following pairs.

Cranial nerve number	Name of cranial nerve
1) IX	Hypoglossal
2) IV	Trochlear
3) V	Trigeminal
4) VII	Facial

Which of the above pairs are correctly matched?

- A) 1 and 2 only
- B) 1 and 4 only
- C) 2, 3 and 4 only
- D) 1, 2, 3, and 4

Q.6) Epstein Barr Virus is associated with which of the following ?

- 1) Burkitt's Lymphoma in African children
- 2) Nasopharyngeal carcinoma in people of Chinese origin
- 3) Lymphoma in immunocompromised
- 4) Neutropenia in people of Mediterranean region

Answer:

- A) 1, 2, 3, 4
- B) 1, 2, 4
- C) 1, 2, 3
- D) 1, 3, 4

Q.7) Urine is considered as '*Toxicologist Gold*' because of which of its following features:

- I. Drugs present in higher concentration
- II. Large volume easy to collect
- III. Non- invasive
- IV. No pain or discomfort while collection

- A) I, II, III & IV
- B) I, II & III
- C) I & II
- D) None of the above

Q.8) Which of the following are first line treatment options for a patient with atonic PPH:

- 1) Bimanual uterine massage
- 2) Immediate operative intervention
- 3) Oxytocin infusion
- 4) uterine tamponade

Options are:

- | | |
|----------|----------|
| A) 1 & 2 | B) 1 & 3 |
| C) 2 & 3 | D) 2 & 4 |

Q.9) Which of the following are the supports of the uterus?

- i) Cardinal ligament
- ii) Broad ligament
- iii) Uterosacral ligament
- iv) Round ligament

Options are:

- | | |
|------------|-------------|
| A) i & ii | B) iii & iv |
| C) i & iii | D) ii & iv |

Q.10) Which of the following are correct regarding advantages of multidetector row computed tomography (MDCT)?

- i) Reduced movement artifacts
- ii) Shorter scan ranges
- iii) Isotropic imaging
- iv) More contrast volume requirement for CT angiographies

- | | |
|--------------|---------------|
| A) ii and iv | B) i and iii |
| C) i and ii | D) iii and iv |

Q.11) Which of the following statements are correct regarding indications of Fluorodeoxyglucose(FDG)- PETCT?

- i) PETCT is used for assessment of response to therapy in lymphoma.
- ii) FDG-PET is the imaging modality of choice in melanoma for assessment of distant metastasis.
- iii) PET CT is not useful in evaluation of the indeterminate solitary pulmonary nodule
- iv) PETCT is commonly used for diagnosis of lymphoma.

- | | |
|---------------|---------------|
| A) i and ii | B) ii and iii |
| C) iii and iv | D) iv and i |

Q.12) Which of the following statements are correct regarding CT iodinated contrast agents?

- i) Patients with renal impairment should be kept well hydrated.
- ii) Intravenous non-ionic contrast agents have a much higher incidence of both major and minor side-effects as compared to ionic agents.
- iii) Dose of iodinated contrast agent is considered as potential risk factor for nephropathy
- iv) The concentration of iodine in the iodinated contrast media affect its viscosity.

A) i, ii, iv

B) ii, iii, iv

C) i, iii, iv

D) i, ii, iii

Q.13) Arrange the following in ascending chronological order of occurrence while performing a Hysterosalpingography (HSG) study.

- i) Water soluble iodinated contrast is subsequently injected slowly under fluoroscopic guidance.
- ii) Catheterisation of the cervix is performed using 6 Fr Foley catheter with balloon inflation
- iii) Spot fluoroscopic images obtained till bilateral intraperitoneal spill of contrast
- iv) Patient placed in the lithotomy position

A) iv, ii, i, iii

B) i, ii, iii, iv

C) iv, ii, iii, i

D) iii, iv, ii, i

Q.14) The following statements are accurate in the context of percutaneous tracheostomy:

- i) In a 55 year-old male with 5x4 cm thyroid mass and history of prolonged intubation, percutaneous tracheostomy should ideally be avoided
- ii) 12 year-old male with cranio-vertebral junction anomaly underwent corrective surgery and is currently intubated. He has developed ventilator associated pneumonia. Percutaneous tracheostomy is indicated for better pulmonary toileting
- iii) Coagulation abnormality should be ruled out routinely prior to percutaneous tracheostomy
- iv) Body mass index (BMI) greater than 30 kg/m² makes percutaneous tracheostomy technically challenging and is a relative contraindication

- A) i, iii, iv
- B) i, ii, iii
- C) ii, iii, iv
- D) i, ii, iii, iv

Q.15) The obstructive elements to congenital dislocation of hip in 02 years old child include.

- i) Hypertrophied Ligamentum Teres
 - ii) Transverse Acetabular Ligament
 - iii) Inverted Limbus
 - iv) Pulvinar
- A) If i, ii and iii are correct
 - B) If i and iii are correct
 - C) If i and ii are correct
 - D) If all four (i,ii,iii and iv) are correct.

Q.16) Arrange the following in decreasing order of metastatic potential.

- i) Ewing Sarcoma
 - ii) Osteosarcoma
 - iii) Chondrosarcoma
 - iv) Giant Cell tumour of bone
- A) i, ii, iii, iv
 - B) ii, i, iii, iv
 - C) iii, i, ii, iv
 - D) iii, ii, i, iv

Q.17) Arrange the following vaccines from most sensitive to heat to least sensitive to heat:

- i) Oral Polio Vaccine
 - ii) Measles Vaccine (freeze dried)
 - iii) Inactivated Polio Vaccine
 - iv) Japanese Encephalitis Vaccine
- A) i, ii, iii, iv
 - B) i, iii, ii, iv
 - C) i, iv, ii, iii
 - D) iv, i, ii, iii

Q.18) Which of the following indicator (s) are used to calculate Global Hunger Index:

- i) Proportion of population with insufficient calorie intake
 - ii) Child wasting
 - iii) Child stunting
 - iv) Child mortality
- A) i & ii
 - B) i & iii
 - C) i, iii, & iv
 - D) i, ii, iii & iv

Q.19) Which of the following are interventions under Anemia Mukht Bharat?

- i) Prophylactic iron folic acid supplementation
 - ii) Deworming
 - iii) Testing of anemia using digital methods and point of care treatment
 - iv) Addressing non-nutritional causes of anemia in endemic pockets
- A) i, ii
 - B) i, iii
 - C) i, ii & iii
 - D) i, ii, iii & iv

Q.20) Arrange the following ion channels present in skeletal muscle in order which they are activated during the process of excitation contraction coupling:

- i) Acetylcholine gated ion channel
 - ii) Voltage gated calcium channel
 - iii) Voltage gated sodium channel
 - iv) Ryanodine receptor
- A) ii, i, iii, iv
 - B) i, ii, iii, iv
 - C) i, iii, ii, iv
 - D) iii, ii, i, iv

Q.21) Arrange the following events of cardiac cycle in order of occurrence after the occurrence of 'p' wave

- i) First heart sound
 - ii) 'a' wave of atrial pressure
 - iii) Rapid filling phase of ventricle
 - iv) 'T' wave of ECG
- A) ii, iii, i, iv
 - B) ii, i, iv, iii
 - C) i, ii, iii, iv
 - D) i, ii, iv, iii

Q.22) Consider the following in the context of RBCs

- i) Hypochromic
- ii) Normochromic
- iii) Microcytic
- iv) Macrocytic

Anemia of the chronic blood loss is

- A) i and iii
- B) Only i
- C) Only iii
- D) ii and iii

Q.23) Based on World Health Organization (WHO) classification of xerophthalmia, which signs are TRUE and which one are FALSE:

- i) X1A is Bitot's spots,
- ii) X2 is Corneal Xerosis,
- iii) X3A is Corneal ulceration of $< 1/3$ of cornea,
- iv) X1B is Night blindness

- A) i-TRUE, ii-TRUE, iii-TRUE, iv-FALSE
- B) i-FALSE, ii-TRUE, iii-TRUE, iv-TRUE
- C) i-FALSE, ii-TRUE, iii-TRUE, iv-FALSE
- D) i-FALSE, ii-FALSE, iii-TRUE, iv-TRUE

Q.24) Which of the following statement/s about hypothyroidism are TRUE and which is/are FALSE?

- i) Congenital hypothyroidism is most common preventable cause of mental retardation
- ii) Iodine deficiency is most common cause of hypothyroidism in India
- iii) Thyroid scan shows increased uptake in hypothyroidism caused by iodine deficiency

- A) i-FALSE, ii-FALSE, iii-TRUE
- B) i-TRUE, ii-TRUE, iii-FALSE
- C) i-TRUE, ii-FALSE, iii-TRUE
- D) i-FALSE, ii-TRUE, iii-TRUE

Q.25) Which of the following serological pattern and interpretation of results for viral Hepatitis B is not correctly matched?

	HbsAg	AntiHbs	AntiHBc	HBeAg	AntiHbe	Interpretation
A)	+	-	IgM	+	-	Acute hepatitis B, highly infectious
B)	+	-	IgG	+	-	Chronic hepatitis B, highly infectious
C)	+	-	IgG	-	+	Pre-core mutant
D)	-	-	-	+	-	Seroconversion from HBsAg to anti-HBs

Q.26) Why the superior aperture of thoracic cavity is called thoracic outlet?

- A) Due to emergence of important vessels and nerves.
- B) Due to entry of air and food passages.
- C) Due to largest of the thoracic openings.
- D) Due to its often involvement in thoracic outlet disease.

Q.27) Which nerve is intimately related to superior thyroid artery?

- A) Superior laryngeal nerve
- B) Inferior laryngeal nerve
- C) Recurrent laryngeal nerve
- D) External laryngeal nerve

Q.28) Coronary sinus opens into which chamber of heart?

- A) Right atrium
- B) Left atrium
- C) Right ventricle
- D) Left ventricle

Q.29) What is the cut off range of normal vs nephrotic range proteinuria in children in mg/ m²/hour?

- A) Normal-16;nephrotic-40
- B) Normal-4; nephrotic-40
- C) Normal-16;nephrotic-60
- D) Normal-4;nephrotic-60

Q.30) What will you suspect in a child who was (SARS-COV2) covid positive 2 weeks back and now has come with fever, oral mucosal ulceration, rash, bilateral conjunctivitis, thrombocytopenia, raised ferritin levels and echocardiogram showing normal coronaries

- A) Kawasaki disease
- B) Multisystem inflammatory syndrome
- C) Disseminated sepsis
- D) Thrombotic microangiopathy

Q.31) What is the name of the phase of the cell cycle between the conclusion of cell division and the beginning of DNA synthesis?

- A) G1
- B) S
- C) G2
- D) M

Q.32) Which ONE of the following is required for both prokaryotic and eukaryotic protein synthesis?

- A) Binding of the small ribosomal subunit to the Shine Dalgarno sequence.
- B) fMet-tRNA
- C) Movement of the mRNA out of the nucleus and into the cytoplasm
- D) Translocation of the peptidyl-tRNA from the A site to the P site.

Q.33) Which of the following option is correct regarding Quality Assurance (QA) and Quality Control (QC)?

- A) QC is an integral part of QA
- B) QA is an integral part of QC
- C) QA and QC are independent to each other
- D) QC may or may not depend on QA

Q.34) Hormones that alter gene transcription by interacting with receptor located in the nucleus include each of the following EXCEPT:

- A) Testosterone
- B) Triiodothyronine
- C) Cholecalciferol
- D) ACTH

Q.35) Which of the following acid-base conditions is characterized by primary carbonic acid excess?

- A) Respiratory alkalosis
- B) Respiratory acidosis
- C) Metabolic alkalosis
- D) Metabolic acidosis

Q.36) A 22 year female suffers from repeated attacks of hay fever. Her clinician told her its due to atopy. Which of the following is not a characteristic of Atopy ?

- A) Genetic predisposition
- B) May be associated with dermatitis too
- C) IgE mediated
- D) T cell mediated

Q.37) Which of the following classification is used to classify patient care items and equipment of the hospital into various categories on basis of degree of risk of infection involved in their use ?

- A) Runyon classification
- B) Spaulding classification
- C) Madrid classification
- D) Lancefield classification

Q.38) A junior resident identified the organism isolated to be *Citobacter freundii*. However, the faculty incharge told him that it has been misidentified and gave final report as *Salmonella Typhi*. What are points in favor of it being *S. Typhi*?

- A) NLF Colonies, anaerogenic, H₂S positive, Motile bacteria
- B) NLF colonies, H₂S positive, Urease positive, Non motile bacteria
- C) LF colonies, anaerogenic, H₂S positive, non motile bacteria
- D) LF colonies, H₂S positive, Urease positive, Non motile bacteria

Q.39) Painless progressive loss of vision in a AIDS patient with CD4 count less than 50. Likely causative organism is

- A) Cytomegalovirus
- B) Kaposi sarcoma
- C) Pneumocystis jiroveci
- D) Histoplasma capsulatum D

Q.40) The class of antibiotic that potentiates neuromuscular blockade is

- A) Cephalosporin
- B) Carbapenam
- C) Aminoglycoside
- D) Vancomycin

Q.41) Todd's method for estimation of age from pubic symphysis involves observation of the following, EXCEPT:

- A) Billowing
- B) Lipping
- C) Ridging
- D) Ossific nodules

Q.42) Find the INCORRECT match of the smell with the poison causing it:

- | | | |
|----------------|---|-----------------|
| A) Fruity | - | Nitrobenzene |
| B) Acrid | - | Chloral hydrate |
| C) Garlic | - | Arsenic |
| D) Rotten fish | - | Zinc phosphide |

Q.43) Following are the true about the doctrine of '*Res ipsa loquitur*', EXCEPT:

- A) Burden is on the patient to prove the negligence
- B) Doctor had exclusive control over treatment/ instrument
- C) Patient should be not guilty of contributory negligence
- D) Injury would not have occurred in absence of negligence

Q.44) For afebrile woman with stable vitals on 2nd postpartum day following normal vaginal delivery has bloody vaginal discharge with sweetish odour. On pelvic examination uterus is soft and non-tender. Her WBC count = 10,000/mm³ with predominant granulocytes. How will you manage?

- A) She needs curettage because of retained placental bits
- B) She should be started on oral antibiotics
- C) Reassurance
- D) Order urine analysis

Q.45) What is the most specific management for a 28 year old woman with severe pre-eclampsia at 30 weeks gestation throwing a fit at admission?

- A) Loading dose of MgSO₄
- B) Sedation with diazepam
- C) Phenytoin infusion
- D) Injectable Labetalol

Q.46) In Dash board injury the attitude of lower limb will be:

- A) Extension, Adduction, Internal rotation
- B) Flexion, Adduction Internal rotation
- C) Flexion, Abduction, External rotation
- D) Extension, Abduction, External rotation

Q.47) Position of shoulder arthrodesis is:

- A) Flexion-20°, Abduction-70°, External rotation- 10°
- B) Flexion-25°, Abduction-30°, internal rotation- 45°
- C) Flexion-30°, Abduction-60°, External rotation- 30°
- D) Flexion-40°, Abduction-90°, Internal rotation- 45°

Q.48) All of the following modalities can be used for in situ ablation of liver secondaries, except:

- A) Ultrasonic waves
- B) Cryotherapy
- C) Alcohol
- D) Radio-frequency ablation

Q.49) In bony metastasis ,primary should be looked for in all ,except:

- A) Stomach
- B) Breast
- C) Prostate
- D) Bronchus

Q.50) A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paraesthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot. The appropriate initial management of this patient would be.

- A) Angiography
- B) Immediate exploration and repair
- C) Fasciotomy of anterior compartment
- D) Observation for resolution of spasm

Q.51) A 25 year old male with 7 years history of intermittent mucoid discharge from right ear and hearing loss, presents to the casualty with severe ear pain associated with retro-orbital pain, double vision. Which of the following is true:

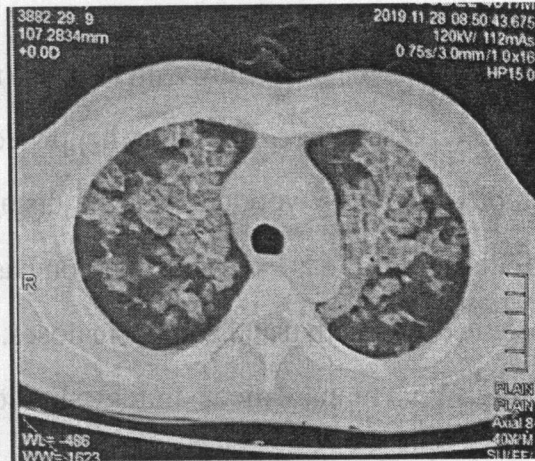
- A) Double vision is due to involvement of Gasserian ganglion at the petrous apex
- B) Retroorbital pain is due involvement of the Gasserian ganglion at the petrous apex
- C) Computed tomography will reveal sclerosis of the petrous apex
- D) There is no role for surgical drainage in this patient

Q.52) A 25 year old female is diagnosed with papillary thyroid carcinoma of the right lobe measuring 2×2 cm, with no extrathyroidal extension or cervical lymphadenopathy. What is the most appropriate treatment :

- A) Ipsilateral lobectomy
- B) Total Thyroidectomy plus central compartment neck dissection
- C) Radioiodine treatment with 100 mcurie ^{131}I Iodine
- D) Close observation with serial ultrasound scan and Thyroxine suppression

Q.53) The CT scan given shows the crazy-paving appearance which is considered characteristic of:

- A) Pulmonary alveolar proteinosis
- B) Pulmonary Langerhans cell histiocytosis
- C) Lymphangioleiomyomatosis
- D) Idiopathic pulmonary fibrosis



Q.54) A 31-year-old male is admitted with severe community-acquired pneumonia. Chest radiograph shows large right sided pleural effusion. A diagnostic pleural aspiration is performed. Which of these is NOT an indication of tube thoracostomy?

- A) Pleural fluid pH <7
- B) Pleural fluid protein >5 g/dL
- C) Pleural fluid lactate dehydrogenase concentration >1000 units/L
- D) Bacteria seen or cultured from pleural fluid

Q.55) A 30-year-old lady with anemia is found to have following red cell indexes: mean corpuscular volume, 70 mm³; mean corpuscular hemoglobin, 22 pg; and mean corpuscular hemoglobin concentration, 34%. These findings are most consistent with a diagnosis of

- A) Folic acid-deficiency anemia
- B) Iron-deficiency anemia
- C) Pernicious anemia
- D) Thalassemia minor

Q.56) Which of the following statements is incorrect in relation to 'Le faciessympathiques'?

- A) Occurs due to knot pressing on cervical sympathetic
- B) Eye on same side of knot is open and pupils dilated
- C) Seen both in hanging and strangulation
- D) It is a sign of antemortem hanging.

Q.57) 26 year old male patient presents to emergency with injury to right leg as he was removed from rubble of a house after an earthquake. The injury happened 16 hours back. The patient is hemodynamically stable, the leg is wooden stiff, the distal pulsations are feeble and there is no neurological deficit. There is excessive pain on passive stretching of toes and foot. The pain has not come down with usual analgesic doses. The radiographs of the leg does not show any fracture. What management strategy should be followed?

- A) Elevation and compression bandage of the leg
- B) Fasciotomy of leg
- C) Increase the analgesic doses
- D) Doppler of the lower limbs

Q.58) Population of the primary health centre, where you are posted, is 50000. In the year 2019, through house visits, health workers elicited 5000 cases of fever. Out of these 5000 fever cases, peripheral smears for malarial parasite was made for 4000 cases. *P. vivax* was found positive in 80 cases and *P. falciparum* in 20 cases. What is the Annual Blood Examination Rate (ABER) of the PHC?

- A) 8%
- B) 2%
- C) 2.5%
- D) 80%

Q.59) An asymptomatic patient with no active bleeding and who is not planned for a major surgery will still require blood transfusion if his hemoglobin level is less than

- A) 5 gm%
- B) 6 gm%
- C) 8 gm%
- D) 10 gm%

Q.60) A patient has presented 4 hours after blunt injury to right lower limb following a road traffic injury. The patient is complaining of severe pain in right leg. On examination, you find tenderness on passive stretching of great toe and some sensory loss over the foot. The peripheral pulses are feeble. The most appropriate next step in managing him would be:

- A) Immobilizing the limb in a plaster cast
- B) Urgent fasciotomy
- C) Watchful waiting for line of demarcation to appear
- D) Below knee amputation

Q.61) Which of the following is a colloid solution?

- A) Normal saline
- B) 25% Dextrose
- C) Hydroxyethyl starch 6%
- D) Hartmann's solution

Q.62) Which of the following hemodynamic response best represents hypovolemic shock?

- A) ↑cardiac output, ↓vascular resistance, ↑venous pressure
- B) ↓cardiac output, ↑vascular resistance, ↓venous pressure
- C) ↓cardiac output, ↓vascular resistance, ↓venous pressure
- D) ↑cardiac output, ↓vascular resistance, ↑venous pressure

Q.63) A 50-year-old comes to you with a painful ulcer at the tip of great toe with surrounding black skin. There is no history of trauma although he complains of pain in both calves on walking from last 6 months. The **MOST LIKELY** cause of this ulcer would be:

- A) Arterial insufficiency
- B) Deep venous thrombosis
- C) Peripheral neuropathy
- D) Chronic venous hypertension

Q.64) A 1-year-old infant is brought to the emergency room with episodes of incessant crying and greenish vomiting off and on from 1 day. The child sleeps in between these episodes. On examination, the child is dehydrated with slightly distended abdomen and a palpable lump in right upper quadrant of abdomen. There are no features of peritonitis. An ultrasound scan of abdomen revealed concentric rings within the lump. The **MOST APPROPRIATE** next step should be:

- A) CECT scan of the abdomen
- B) Exploratory laparotomy
- C) Air enema
- D) Passage of flatus tube

Q.65) The 'Triple assessment' in evaluation of breast lump suspicious for carcinoma includes:

- A) Clinical examination, cytology from breast lump and mammography
- B) Clinical examination, cytology from axillary lymph node and core needle biopsy from breast lump
- C) Cytology of nipple discharge, core needle biopsy from breast lump, Ultrasound of breast
- D) Mammography, cytology and core needle biopsy from breast lump

Q.66) The fine needle aspiration cytology (FNAC) of a thyroid swelling is reported as 'Thy1', this suggests the result to be:

- A) Follicular pathology
- B) Benign lesion
- C) Malignant lesion
- D) Non-diagnostic

Q.67) Following is true regarding thyroid neoplasm:

- A) Papillary carcinoma commonly disseminates by blood borne metastasis
- B) Hurthle cell carcinoma is a variant of follicular carcinoma with better prognosis
- C) Follicular carcinoma can only be differentiated from follicular adenoma on histology
- D) Most of the medullary carcinomas are familial

Q.68) A patient presents with acute-onset cirrhosis of the liver and has hypoalbuminemia. In severe cirrhosis it is expected that acid glycoprotein will be decreased, but the patient has high levels due to the inflammatory response. Which of the following is the most likely?

- A) Increased acidic drug binding and increased basic drug binding
- B) Increased acidic drug binding and decreased basic drug binding
- C) Decreased acidic drug binding and increased basic drug binding
- D) Decreased acidic drug binding and decreased basic drug binding

Q.69) A new drug has the following pharmacokinetic features: Volume of Distribution: 50 L, Clearance: 30 ml/min, Bioavailability: 50%, Half Life: 23 h. The drug is administered orally and the target plasma concentration is 2 mg/ml. What will be the loading dose for this drug?

- A) 25 mg
- B) 50 mg
- C) 100 mg
- D) 200 mg

Q.70) A 65 year old man with prostate cancer is treated with leuprolide. Which of the following is the mechanism of action of this drug?

- A) 5-alpha-reductase Inhibitor
- B) Competitive androgen receptor antagonist
- C) Synthetic GnRH analog
- D) Competitive inhibitor of LH

Q.71) A 28 year old female is on oral contraceptive pills. Which of the following drugs, if taken concurrently, is least likely to cause a contraceptive failure?

- A) Ampicillin
- B) Rifampicin
- C) Griseofulvin
- D) Phenytoin

Q.72) An inquiry commission was set up to investigate a train accident at a signal crossing. The commission inferred that the engine driver jumped the red signal. The engine driver was a 50 year old male who said that he was seeing everything with a yellowish haze since he started antitubercular drugs. Which of the following drugs may be responsible for such a symptom?

- A) Isoniazid
- B) Rifampicin
- C) Pyrazinamide
- D) Ethambutol

Q.73) A 28 year old healthy athletic female with BMI of 22Kg/m² develops secondary amenorrhoea of 6 months with raised FSH of 80mIU/L and LH 120mIU/L. What is the likely diagnosis ?

- A) Pregnancy
- B) Hypogonadotropic hypogonadism
- C) Hyperprolactinemia
- D) Hypergonadotropic hypogonadism

Q.74) A patient G2P0+0+1+0 presents at 35+3 weeks POG with USG report showing : BPD -34 weeks; AC- 30 weeks; FL-33 weeks; HC-33+3weeks; placenta- grade 3; AFI- 5; Umbilical artery Doppler – absent end diastolic flow. What should be likely plan of management?

- A) Admission and daily monitoring and delivery at 37 weeks
- B) Admission and giving dexamethasone and delivery after 48 hrs
- C) Admission and inform paediatrician and plan for termination immediately
- D) Admission and daily Doppler till it shows reversal of flow or patient reaches 37 weeks.

Q.75) Which of the following genitourinary infection in women does not warrant treatment of male partner:

- A) Trachomonas vaginalis
- B) HSV infection
- C) Bacterial vaginosis
- D) Syphilis

Q.76) Regarding the antenatal management of a pregnant women with double valve replacement on anti-coagulation therapy, the following should be the management plan:

- A) In the first trimester, patient should be switched over to heparin therapy during the period of organogenesis
- B) In the second trimester, as there is high chance of placental insufficiency, heparin should be the anti-coagulant of choice
- C) Heparin should be continued during intrapartum period to avoid the risk of intrapartum thrombosis
- D) Heparin therapy should be continued till 2 weeks after delivery

Q.77) A couple comes with infertility for last 3 yrs. The age of female partner is 24 years. Investigations revealed FSH -47 IU/ml; LH 24 IU/ml; prolactin – 21ng/ml; TSH- 2.2IU/ml .HSG reveals bilateral cornual block. Husband semen analysis is normal according to WHO criteria. Which of the following is not the part of work up and treatment of couple:

- A) Karyotype of female partner
- B) Diagnostic laparoscopy and Hysteroscopic cannulation
- C) Diagnostic hysteroscopy
- D) Repeating the hormonal profile to confirm the diagnosis

Q.78) Identify the figure and mark the type of twin conception:

- A) Moniamniotic monochorionic
- B) Diamniotic monochorionic
- C) Diamniotic dichorionic
- D) Conjoint twins.



Q.79) A 51-year-old woman is diagnosed with invasive cervical carcinoma by cone biopsy. Pelvic examination and rectal-vaginal examination reveals 2.5cm growth on ectocervix, parametrium and vagina free of tumour. Intravenous pyelography (IVP) and sigmoidoscopy are negative. This patient is classified as stage :

- A) IB1
- B) IB2
- C) IB3
- D) IA2

Q.80) hCG estimation during early pregnancy is quite useful in the investigation of pregnancy of unknown location as well as in the follow up of a case of hydatiform mole. Choose the INCORRECT statement about hCG:

- A) Levels are very high in Gestational Trophoblastic disease than a normal pregnancy
- B) Levels of hCG double every 24 hour during second trimester
- C) Useful in managing patients with ectopic pregnancy
- D) Maternal plasma hCG levels peak around 10 -12 weeks

Q.81) Congenital and involutional ptosis can be distinguished by all of the following except:

- A) Degree of levator function
- B) Presence of lid crease
- C) Width of palpebral fissure
- D) Presence of jaw wink

Q.82) Absent /broken zonules with ectopia lentis and positive sodium nitroprusside test in urine is noted in:

- A) Homocystinuria
- B) Marfan's disease
- C) Both of the above
- D) None of the above

Q.83) 0.125% pilocarpine is used for the diagnosis of:

- A) Adie tonic pupil
- B) Marcus Gunn Jaw winking phenomenon
- C) Horner syndrome
- D) Myasthenia Gravis

Q.84) Which type of cataract is associated with an increased risk of capsular rupture during surgery?

- A) Posterior polar
- B) Sutural
- C) Anterior subcapsular
- D) Posterior subcapsular

Q.85) In proliferative retinopathy, which of the following is/are seen:

- A) Neovascularisation
- B) Vitreous haemorrhage
- C) Both of the above
- D) None of the above

Q.86) In absence of ossicular system of the ear, the sensitivity of hearing decreases by

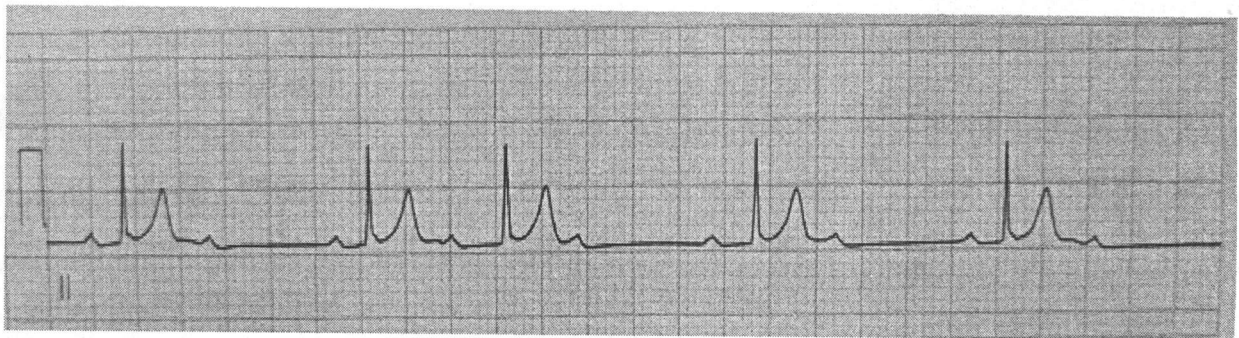
- A) 10 dB
- B) 20 dB
- C) 30 dB
- D) 40 dB

Q.87) All the following can be measured by the spirometer EXCEPT

- A) vital capacity
- B) tidal volume
- C) FEV_1
- D) functional residual capacity

Q.88) What is the abnormality shown in the ECG?

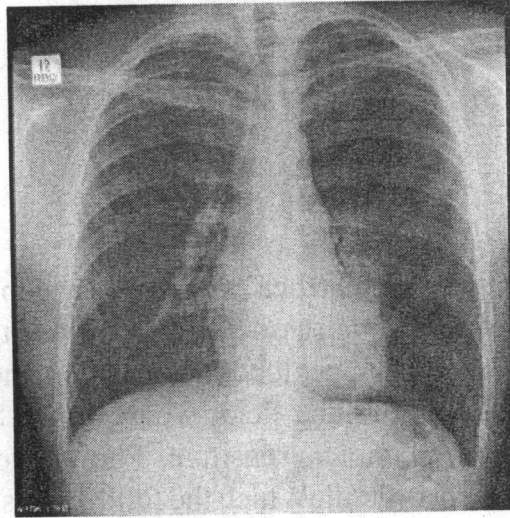
- A) Sinus pause
- B) Mobitz type I second degree AV block
- C) Sinus tachycardia
- D) Complete AV block



Q.89) Which of the following is NOT an indication of permanent pace-maker?

- A) Sinus bradycardia with heart rate of 50/min
- B) Intermittent third degree AV block
- C) Type II second degree AV block
- D) Alternate bundle branch block

Q.90) A 24 years-men presented to emergency with acute onset chest pain on the left side. He had similar complains 6 months ago. At that time, he was told to have pneumothorax of the left side. Emergency resident ordered chest X-ray for evaluation. The X-ray is shown below:



What will be the best management for this patient?

- A) Oxygen
- B) Single time needle aspiration of air
- C) Insert intercostal drainage catheter
- D) Intercostal drainage catheter insertion and Pleurodesis

Q.91) 40 years-non-smoker lady was evaluated for claudication in lower limbs for last 2 months duration. The angiography performed which showed “string of beads” appearance in iliac arteries. Which of the following disease give this appearance on angiography?

- A) Fibromuscular dysplasia
- B) Atherosclerotic disease
- C) Thromboangiitis obliterans
- D) Giant cell arteritis

Q.92) 30-years-old patient admitted in ICU. The blood gas report is as follows: pH – 7.31, PaCO₂ – 34 mmHg, PaO₂ – 98, HCO₃ – 18 mg/dl and anion gap was 18 (normal anion gap 12). Which of the following condition will not present with these blood gas findings?

- A) Lactic acidosis
- B) Renal tubular acidosis
- C) Diabetic ketoacidosis
- D) Uremia

Q.93) A 33-years-old woman presented with diarrhea, weight loss and low grade fever for last 4 months. She also complaint of mild cough associated with blood tinged sputum for last 6-7 weeks. Her chest x-ray revealed left upper lobe consolidation; there was no associated pleural effusion or pneumothorax; right lung fields were normal. Sputum sent for CB-NAAT reported as MTB detected, rifampicin sensitive. Further work-up revealed HIV-ELISA was reactive, CD4 count was 400/dl. Which the following is the most appropriate next step?

- A) Starting therapeutic dose of Septran
- B) Immediately start HAART
- C) Start treatment for tuberculosis under DOTS
- D) Start both HAART and treatment for tuberculosis

Q.94) A women, who is positive for hepatitis B (HBsAg positive), gives birth to a boy at term. What is true regarding immunoprophylaxis for the baby?

- A) Hepatitis B immunoglobulin (HBIG) should be given as soon as after birth and Hepatitis B vaccine (HBV) should be given at 1 week of life
- B) HBV should be given as soon as after birth and HBIG should be given at 1 week of life
- C) Both HBIG and HBV should be given together as soon as after birth
- D) Both HBIG and HBV should be given together at 1 week of life

Q.95) A 4 years old boy is diagnosed with pulmonary tuberculosis with compatible history and gastric aspirate (GA) positive GeneXpert, sensitive to rifampicin, though GA for acid fast bacilli was negative. What will be treatment regimen for him ? (H-Isoniazid, R-Rifampicin, Z-Pyrazinamide, E-Ethambutol, S-Streptomycin)

- A) 2 HRZE + 4 HR
- B) 2 HRZE + 4 HRE
- C) 2 HRE + 4HR
- D) 2 HRZES + 1HRZE + 5HRE

Q.96) A 60-year-old lady presents to the emergency with inability to move her legs for 1 day preceded by backpain for 3-4 days. She had history of stage 4 carcinoma breast for which she was on treatment. On examination, she had sensory loss below umbilicus with paraparesis. Which among the following is the most appropriate next step in her management?

- A) Consult neurosurgery for emergent spinal decompression
- B) Consult radiation oncology for emergent spinal radiation
- C) Administration of dexamethasone 10 mg IV
- D) Perform MRI of the entire spinal cord

Q.97) Consider the following pairs:

Pharyngeal arch	Nerve
a) First	1) Vagus(recurrent laryngeal branch)
b) Second	2) Glossopharyngeal
c) Third	3) Facial
d) Sixth	4) Trigeminal(maxillary and mandibular divisions)

Which of the pairs given above is/ are correctly matched?

- A) a- 1, b-2, c-3, d-4
- B) a- 2, b- 1, c- 3, d- 4
- C) a-3, b- 2, c- 1, d-4
- D) a-4, b-3, c-2, d-1

Q.98) Match the following:

- | | |
|--------------------|---|
| a) Schick test | 1) To differentiate Rickettsiae |
| b) Dick test | 2) To test acquired immunity to scarlet fever |
| c) Koch Phenomenon | 3) To detect hypersensitivity to tubercular bacilli |
| d) Tunica Reaction | 4) To test acquired immunity to diphtheria |

Choose the correct option:

- A) a: 4; b: 2; c: 3; d: 1
B) a: 3; b: 2; c: 1; d: 4
C) a: 3; b: 2; c: 4; d: 1
D) a: 4; b: 3; c: 2; d: 1

Q.99) Which of the following are matched in the correct combinations of colour of bruise and pigment present in it?

- | | |
|----------------|-------------|
| a) Hemosiderin | 1) Green |
| b) Bilirubin | 2) Red/Blue |
| c) Hematoidin | 3) Brown |
| d) Hemoglobin | 4) Yellow |
- A) a-1, b-4, c-3, d-2 B) a-4, b-3, c-1, d-2
C) a-3, b-4, c-1, d-2 D) a-2, b-4, c-3, d-1

Q.100) Consider the following pairs:

- | | |
|----------|-------------|
| a) Fat | 1) 10 HU |
| b) Bone | 2) 1000 HU |
| c) Air | 3) - 900 HU |
| d) Water | 4) - 20 HU |

Which of the following pairs are correctly matched?

- A) a - 1, b - 2, c - 3, d - 4 B) a - 2, b - 3, c - 4, d - 1
C) a - 4, b - 2, c - 3, d - 1 D) a - 3, b - 4, c - 1, d - 2