



Dr.M.G.R.
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(DEEMED TO BE UNIVERSITY)
Madhavayal, Chennai - 600 095, Tamil Nadu, India.
(An ISO 9001 : 2015 Certified Institution)



PART - 1



Answer Booklet Number

1473001

STUDENTS TO WRITE APPROPRIATE INFORMATION BELOW :

Degree : MBBS Question Booklet No : EM 01
Branch : MEDICINE Subject Code : BMS16701
Subject : GENERAL MEDICINE PART I Semester : 4th YEAR
No of Pages used : 23 Date : 16/03/2021 Session : FN

Signature of the Candidate

Regulator's Signature

Chief Superintendent's Signature /
Facsimile with date

Bundle Number

STUDENTS TO FILL THIS AREA FIRST

Write your Register Number and shade the
Circle with Blue or Black Ballpoint Pen only.

REGISTER NUMBER

1	6	2	0	1	1	1	0	5	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8
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PART - 2



Total Marks (in Words) by the Evaluator :

Degree : MBBS Branch : MEDICINE
Subject : GENERAL MEDICINE - I No. of pages used : 23
Semester : _____

Bundle Number

Evaluator's Name : _____

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QUESTION NUMBERS / MARKS

Q.No.	Marks	Q.No.	Marks	Q.No.	Marks
1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	
Total					

TOTAL
MARKS

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9



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PART - 3



Total Marks (in Words) by the Evaluator :

Degree : MBBS Branch : MEDICINE
Subject : GENERAL MEDICINE - I No. of pages used : 23
Semester : _____

Bundle Number

Evaluator's Name : _____

Evaluator's Signature : _____

QUESTION NUMBERS / MARKS

Q.No.	Marks	Q.No.	Marks	Q.No.	Marks
1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	
Total					

TOTAL
MARKS

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

INSTRUCTIONS TO THE CANDIDATES

1. No Additional sheets will be provided.
2. Check whether the Answer Book Number is clear & legible.
3. Check whether Answer Booklet consist of 40 / 10 pages.
4. Ensure whether the pages are stitched or stapled properly.
5. Fill in the particulars such as

For Example

- a) Degree : B.A./B.Sc./B.Com./B.Tech./B.Arch./B.Ed./B.D.S/M.A./M.Sc./
M.Com./M.Tech./M.Arch./M.D.S/M.Phil./MBA/MCA/MBBS/BPT/
B.Pharm/D.Pharm, etc
- b) Branch : CSE / ECE / F.D / V.C / Ind. Bio - Tech. / Mech. / Prod. / Nursing / etc.
- c) Semester : I / II / III / IV / V / VI / VII / VIII / IX / X
- d) Subject Code : As per the University
- e) Subject : Name of the Subject
- f) Question Paper No. : Given in the Question Book
- g) Date : The date on which the exam is attended
- h) Session : Mention the exam is conducted during Fore Noon or After Noon (FN/AN)
- i) No. of pages : Total No. of pages used in the Answer Book for writing the exam.

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10. Log Books, Reference Tables, hand Books, etc., must be attested by the Dept. HOD / Chief Superintendent / Hall Superintendent.
11. Borrowing is strictly prohibited.
12. Candidates are not allowed to enter the examinations hall 30 minutes after commencement of the exam and should not leave the hall during first 30 minutes.
13. Distinguishing Mark on the Answer Sheet for identifications is prohibited & punishable.
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ESSAY₁

Q1-

H1N1

Influenza (Swine flu)

→ Swine flu is caused by H1N1 virus.

→ It mainly affects the animals
• mainly pigs.

→ The main source of transmission is an infected pig.

→ Humans get contaminated from the virus through consumption of the ~~egg~~ ~~pig~~ animals infected with the virus or close contact with the animals.

CLINICAL FEATURES

→ The onset of symptoms may usually be insidious.

→ The initial symptoms may be

flu like symptoms

→ It consists initially of malaise, fatigue, lethargy, lassitude, headache, anorexia, ~~nausea~~.

→ As the disease progresses, ~~there~~ it will be associated with high grade fever with chills.

→ The disease might be associated with body aches and myalgias.

→ It is also associated with cough, dyspnea, chest pain,

→ cough might be associated with expectoration and sputum production.

→

INVESTIGATIONS

DIAGNOSIS: ① Complete blood count, ~~blood~~ may show increase WBCs, raised ESR, elevated C-reactive protein, leucocytosis showing signs of infection

→ ② Demonstration of antibodies against viral antigens by serology
→ ELISA test, IgA, IgG antibodies

→ ~~Reverse~~ ③ RT-PCR TEST

RT
PCR

→ It is one of the most consistent methods of diagnosis of H1N1 influenza

→ This test will confirm the diagnosis by the presence of Reverse transcriptase enzyme in viral genome

④ Rapid antigen test: ~~can~~ This is a quick and easy of

detecting the viral antigens -

⑤ Polymerase chain reaction
(PCR) test: This test
will confirm the presence of
viral RNA or DNA

⑥ Serum ~~comp~~ complement
levels will be decreased
abundance of eosinophils &
other inflammatory cells

→ Chest - X-ray to examine
the patchy infiltrates on
the lungs

Complications: If not treated it
can lead to complications
like -

- ① Respiratory failure
- ② ARDS
- ③ Pulmonary edema

Management: General measures:

- Regular use of masks and other protective measures to reduce the rate of transmission.
- Use of hand sanitizers & other practices
- Maintaining a social distancing between crowds of people to lessen the spread of virus.
- Regular vaccination of the pigs.
- Careful & neat handling of the pigs

MEDICAL THERAPY:

- The mild symptoms like the symptoms can be treated by paracetamol. which has antipyretic & anti-inflammatory properties

→ Antirial therapy .

Q2,

CARDIOMYOPATHY .

Types of cardiomyopathies :

- (i) Dilated
Dilatational cardiomyopathy
- (ii) Restrictive cardiomyopathy
- (iii) Ventricular hypertrophy

Clinical features
features of

The main clinical
cardiomyopathy are

① Dyspnoea which might become
from exertional to dyspnoea at
rest

② Orthopnoea
→ There might be paroxysmal
nocturnal dyspnoea associated
with cough & wheezing

→ Cardiac asthma might be there.

→ Acute pulmonary edema.

→ Cheyne - Stokes respiration might be
there.

→ Nocturia is present

→ cerebral symptoms like lack of
concentration, headache dizziness will
be there.

→ The J.V.P will be raised due
to increase in systemic venous
pressure.

- The pulse shows pulsus alternans and sinus tachycardia.
- pulse pressure deficit
- Presence of third heart sound (S_3) & (S_4) or both summation gallop or triple rhythm
- Cardiac oedema on the dependent parts of the body & extremities
- Fine inspiratory basal crepitation might be heard.

INVESTIGATIONS:

- Chest - X-ray Chest X-ray might show cardiomegaly.
- increased bronchovascular
 - lt markers,

Electrocardiography (ECG) : ECG may show

- Atrial abnormality
- Ventricular hypertrophy

→ Echocardiography ~~may~~ might be done to

- (i) Size & shape of the chamber
- (ii) Dilatation of the chamber
- (iii) Ejection fraction evaluation

→ Radionuclide scan can also be done for ejection fraction evaluation

→ Renal function test, liver function test
→ Thyroid profile test

MANAGEMENT : Management of Cardiac

① β blockers : These agents reduce the myocardial contractility of the heart.

→ It also reduces the heart rate

and hypertension,

→ It has inhibitory effect against catecholamines & catecholamines.

catecholamine

→ Intravenous Metoprolol or Esmolol can be given

→ Propranolol can also be given orally.

② ACE inhibitors. These drugs has adrenergic activity.

→ It also prevents the conversion of Angiotensin I to Angiotensin II so, salt & water retention, sympathetic stimulation are all inhibited.

→ Low & short acting Captopril 12.5mg daily, Enalapril can be given.

→ Angiotensin receptor blockers B like candesartan & losartan can be

given if ACE inhibition is contraindicated

③ CALCIUM CHANNEL BLOCKERS: Ca^{2+} channel blockers like Verapamil, Nifedipine can be given

→ Intravenous Diltiazem can also be given.

④ Digoxin, Digitalis: This drug increases the myocardial contractility -

→ It inhibits $\text{Na}^+ - \text{K}^+$ ATPase pump & increases Na^+ conc. in the cell and so Ca^{2+} increases through $\text{Na}^+ - \text{Ca}^{2+}$ exchange mechanism -

→ As intracellular Ca^{2+} increases it contributes to increased contractility

3→

PULMONARY HYPERTENSION.

→ Pulmonary hypertension is caused by ~~the~~ increase in the pulmonary capillary pressure

Some of the causes of Pulmonary hypertension are:

- (i) VSD Ventricular septal defect
- (ii) ASD Atrial septal defect
- (iii) Patent ductus arteriosus
- (iv) Pulmonary vessel disease
- (v) Pulmonary embolism
- (vi) Acute pulmonary edema
- (vii) Pulmonary Stenosis

Clinical features / features of pulmonary hypertension are

(1) Dyspnoea : dyspnoea on exertion

(2) Fatigue ~~or~~ ~~or~~.

(3) Cyanosis.

→ The patient may experience ^{hypoxic} ~~hypoxic~~ or cyanotic spells while during sitting or exercise.

→ (4) Syncope

→ Right ventricular outflow tract obstruction

INVESTIGATIONS:

Electrocardiography (ECG):

Echocardiography to evaluate the ejection fraction, chamber size & dilatation

Treatment : (i) β -blockers such as propranolol can be given 1-2 mg/kg i. and 3-5 mg/kg maintenance dose.
 - Esmolol, metoprolol can also be given

(ii) Calcium channel blockers : Ca^{2+} blockers like Nifedipine, Verapamil or diltiazem can be given

(iii) ACE inhibitors : like Captopril, ramipril, which have adrenergic activity can be administered

- Angiotensin receptor blockers like candesartan, losartan can be given.

(iv) Vasodilators like Nitroglycerin, sodium nitroprusside can also

be given.

Q

Q

DIABETIC FOOT: Diabetic foot occurs as a result of a long standing chronic diabetic patient.

→ It is one of the common associated disorders or ~~can~~ of Diabetes in a diabetic patient.

→ The main pathology in Diabetic foot is the reduced blood flow or tissue perfusion to the extremities.

→ In diabetic patients, ~~one~~ one of the ~~most~~ common accompanying disorder is Microangiopathies.

→ Microangiopathies results in narrowing of or ~~to~~ flow obstruction ~~to~~ the small capillary ^{vessels} circulation.

→ As a result of reduced blood supply to the extremities especially the legs & feet, there is inadequate perfusion of the feet or extremities.

→ Hypoperfusion leads to tissue necrosis & ischaemia in the area.

→ And as a result Gangrene may develop in the foot.

→ In diabetics, due to high

blood sugar content in the blood, there is reduced delay wound healing also & also favours the growth of many microorganisms in the area.

- Various bacteria, microorganism, fungi may seed in the area & cause infection leading to Gangrenous ulcer in the foot.
- There is ^{local} pain and swelling, tenderness, in diabetic foot area.
- If bacterium seeds in the foci of purulent exudate material might be seen. The foot looks hyperpigmented, Gangrenous appearance.

TREATMENT:

- (i) Drainage of the purulent material or pus if there is exudation & inflammation.
- (ii) Specific antibiotics on the sensitivity report.
- (iii) In severe cases amputation of the foot

5→ Chronic Fatigue Syndrome:-

Chronic fatigue syndrome is seen in diseases like Anemia, Malabsorption syndrome.

- Iron deficiency Anemia.
- Vitamin B₁₂ deficiency Anemia.
- Folic acid deficiency
- Hypoacidity

⑦→ Achalasia cardia of oesophagus:- It is the stricture formation in the lower end of oesophagus, or narrowing of the oesophagus.

- The food contents cannot pass from the oesophagus into the

stomach & stasis of oesophageal contents occurs

→ Dysphagia, dyspepsia, and gastro-oesophageal reflux disease occurs (GERD). Heartburn, weight loss,

→ Examination is by Barium enema or Barium meal follow through

6→ Myelodysplastic syndrome ⇒ Myelodysplastic syndrome consists of "Polycythemia Rubra Vera"

→ Polycythemia is the increased in red blood cell count due to actual increase in blood cell count or reduced volume of plasma.

→ It causes Thrombotic thrombosis, and thromboembolic episodes

→ It can cause stroke, Cerebrovascular accidents,

8) Effects of Radiation Exposure.

→ ~~Radiation ex~~ Radiation therapy is now used in the treatment of various disease like cancer form in the form of radiotherapy. Although it has beneficial effects for the primary cancer it can cause adverse effects elsewhere in body.

- ① Radiation exposure causes ~~diseases~~ ^{effects} like -
- i) Toxic Multinodular Goitre, Solitary nodule of thyroid
 - ii) Malignant Melanoma, BCC.
 - iii) Abortions in pregnant mothers
 - iv) Immunocompromised state
 - v) Burns.
 - vi) Petechiae
 - vii) Abnormal proliferation of
 - viii) Haemorrhage.
 - ix) Ulcers

SHORT ANSWERS.

(13) → CURB - 65. It is used in ^{accessing severity} pneumonia

→ C for confusion

→ U Urea → urea levels @ ^{mg/dl} ~~70~~ 20.

→ R, Respiratory rate, 30 breaths/min

→ B, Blood pressure, Systolic blood pressure < 90 mmHg

(14) Acyclovir: It is an antiviral drug. It is used in the following:

→ (i) Herpes Simplex

(ii) Herpes zoster

→ (iii) Chicken Pox. (200-600mg)

→ (iv) Hepatitis infection (like Hep A, B, C)

(9)

Gamma-glutamyl Transferrase

- It is a liver enzyme
- It is used in routine liver function test (LFT).

- It is used in investigation of certain liver abnormalities like cirrhosis, ascites, portal hypertension,

11,

Four causes of hypothyroidism.

- (i) Hashimoto's thyroiditis
- (ii) Post-Thyroidectomy
- (iii) Iodine deficiency
- (iv) Certain drugs

12→

delayed puberty:

- i chronic kidney disease, (CKD)
- ii Down's Syndrome
- iii Klinefelter's syndrome
- iv Kallmann Syndrome
- v Turner's Syndrome.

Highly soluble

12

(1) 100% soluble in water

(2) 100% soluble in water

(3) 100% soluble in water

(4) 100% soluble in water

(5) 100% soluble in water

