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**M.B.B.S. II Professional Examination****MB-II/12(R)****234111****Microbiology****Paper - I****(New Course)****Time Allowed : 3 Hours****Maximum Marks : 100**

**Note:1. Paper has to be attempted in 2 parts: Section A & Section B.**

- 2. Section A is MCQ (Compulsory).**
- 3. In Section B, Q.No. 2, 4 & 6 are Compulsory. Q.No. 3 & 5 have a choice.**
- 4. Draw Diagrams wherever relevant.**

**SECTION - A****1. Multiple Choice Questions (20×1=20)**

**Note:** Please tick right answer in the choices give below.  
No marks will be given for overwriting.

**1. Which of the following organism follows Koch's postulates.**

- ☒ Mycobacterium leprae
- ☒ Bacillus anthracis
- ☐ Treponema palladium
- ☒ Neisseria gonorrhoeae

**800****[Turn Over**

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2. Which of the following microscopes the object appears bright against a dark background
- Simple light microscope
  - ☒ Dark ground microscope
  - Compound light microscope
  - Electron microscope
3. Which is an enriched media
- ☒ Selenite F broth
  - Peptone water
  - MacConkey agar
  - ☒ Chocolate agar
4. Phage mediated transfer of DNA from one bacterium to another is k/a.
- Transformation
  - ☒ Transduction
  - ☒ Transmission
  - Conjugation
5. ESBL producing organisms are resistant to all except.
- All penicillins
  - ☒ 3<sup>rd</sup> generation cephalosporins
  - Monobactam
  - Carbapenem

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6. Toll like receptor is a component of

- ☒ Innate immunity
- ☐ - Acquired immunity
- ☐ - Active immunity
- ☐ - Passive immunity

7. Which antibody mediates mucosal immunity

- ☒ - IgA
- ☐ - IgG
- ☐ - IgE
- ☒ - IgM

8. All are agglutination reactions, except

- ☒ - VDRL
- ☐ - Standard agglutination test
- ☒ - Widal test
- ☒ - Paul Bunnel test

9. Which of the following acts as an anaphylatoxin.

- ☒ - C3a
- ☐ - C3b
- ☐ - C4b
- ☐ - C2a

[Turn Over



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10. A positive tuberculin test is an example of

- Type I hypersensitivity
- ☒ - Type II hypersensitivity
- Type III hypersensitivity
- Type IV hypersensitivity

11. In a patient with typhoid diagnosis after 15 days of onset of fever is best done by

- Blood culture
- ☒ - Stool culture
- ☒ Urine culture
- ☒ Widal test

12. All of the following rickettsiae belong to spotted fever group except

- R.rickettsii
- ☒ - R.conorii
- R.typhii
- R.akari

13. Malta fever is also called as

- Undulant fever
- Relapsing fever
- ☒ - Rat bite fever

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14. Weil's disease is caused by

- Leptospira interrogans
- Borrelia recurrentis
- I - Treponema carateum
- ✓ - Treponma palladium

15. Hepatitis virus that spreads by faeco-oral route

✓ Hepatitis A

- C - Hepatitis B
- Hepatitis C
- Hepatitis D

16. Which is known as Australia antigen?

✓ HBsAg

- C - HBeAg
- HBcAg
- HBVDNA

17. Traveller's diarrhea is caused by

- ETEC
- I - EHEC
- ✓ EPEC
- EIEC

[Turn Over]

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18. The most common viral cause of gastroenteritis

- ☒ - Rotavirus
- ☐ - Norwalk virus
- ☐ - Adeno virus
- ☐ - Hepadnavirus

19. Which of the following cestode eggs are not bile stained

- ☒ - Hymenolepis nana
- ☐ - Diphyllbothrium latum
- ☐ - Echinococcus granulosus
- ☐ - Taenia solium

20. Infective form and invasive form of Entamoeba histolytica are

- ☒ - Trophozoite and quadrinucleated cyst
- ☐ - Quadrinucleated cyst and trophozoite
- ☐ - Both trophozoite
- ☐ - Both quadrinucleated cyst



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## SECTION - B

~~X~~ Discuss the medicolegal aspect of maintaining confidentiality pertaining to patient Identity on laboratory Results. 5 (7)

3. Write notes on: (Attempt Any 3) (3×7=21)

~~X~~ Immune Tolerance. 4 4

~~X~~ Typhoid carriers. 3

~~X~~ Lyme disease. 3

d) Sub Unit Vaccine. 6 2 2 2

~~X~~ What are the modes of Transmission of health care associated pathogens? Describe the role of Hospital infection control committee. 8 (12)

5. Describe: (Attempt any **FOUR**) (4×7=28)

a) Antimicrobials that act on the cytoplasmic membrane.

~~X~~ Nucleic acid synthesis inhibitors. 4

~~X~~ Cold Sterilization. 3

~~X~~ Hypersensitivity Reactions. 5

~~X~~ Diagnosis of Hepatitis B virus Infection. 3

~~X~~ Classify the Rickettsiaceae. Discuss the laboratory diagnosis of Rickettsial infections. 5 5 (12)