

GMS

Set No. : 1

Question Booklet No.

RET/17/TEST-B

640

Gastroenterology

(To be filled up by the candidate by blue/black ball point pen)

Roll No.

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Roll No. (Write the digits in words) .....

Serial No. of OMR Answer Sheet .....

Day and Date .....

( Signature of Invigilator )

### INSTRUCTIONS TO CANDIDATES

(Use only blue/black ball-point pen in the space above and on both sides of the Answer Sheet)

1. Within 30 minutes of the issue of the Question Booklet, Please ensure that you have got the correct booklet and it contains all the pages in correct sequence and no page/question is missing. In case of faulty Question Booklet, Bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
2. Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card without its envelope.*
3. *A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided.*
4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
5. *On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.*
6. *No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and Roll No. and OMR sheet no. on the Question Booklet.*
7. *Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.*
8. *This Booklet contains 40 multiple choice questions followed by 10 short answer questions. For each MCQ, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet. For answering any five short Answer Questions use five Blank pages attached at the end of this Question Booklet.*
9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. *Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks)*
11. For rough work, use the inner back pages of the title cover and the blank page at the end of this Booklet
12. *Deposit both OMR Answer Sheet and Question Booklet at the end of the Test.*
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. *If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.*

Total No. of Printed Pages : 20

ROUGH WORK

रफ़ कार्य



01. Which kidney Disease is a "Global Public Health" Problem Worldwide ?

- (1) Acute Kidney Injury (AKI)
- (2) Kidney Stone
- (3) Chronic Kidney Disease (CKD)
- (4) Renal Papillary Necrosis

02. Which Virus affects mainly Human Immune System ?

- (1) Hepatitis A Virus (HAV)
- (2) Parvo Virus B19
- (3) Cytomegalovirus (CMV)
- (4) Human Immunodeficiency Virus (HIV)

Which BHU Alumnus is honoured with "Bharat Ratna" ?

- (1) Prof.K.N.Udappa
- (2) Prof.O.N.Srivastava
- (3) Prof.C.N.R.Rao
- (4) Prof.R.D.Dwivedi

04. Which of the following drug is used as "Immunosuppression" ?

- (1) Citrofloxacin
- (2) Aspirin
- (3) Ampicillin
- (4) Cyclosporine

05. The Probability of a particle to cross a barrier of height more than the kinetic energy of the particle is :

- (1) zero
- (2) one
- (3) between zero and one
- (4) 50%

## Research Entrance Test-2017

No. of Questions : 50

प्रश्नों की संख्या : 50

Time : 2 Hours

Full Marks : 200

समय : 2 घण्टे

पूर्णाङ्क : 200

**Note: (1)** This Question Booklet contains **40** Multiple Choice Questions followed by **10** Short Answer Questions.

इस प्रश्न पुस्तिका में **40** वस्तुनिष्ठ व **10** लघु उत्तरीय प्रश्न हैं।

**(2)** Attempt as many MCQs as you can. Each MCQ carries **3 (Three)** marks. **1 (One)** mark will be deducted for each incorrect answer. **Zero** mark will be awarded for each question. If more than one alternative answers of MCQ attempted to be approximate to the correct answer, choose the closest.

अधिकाधिक वस्तुनिष्ठ प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक वस्तुनिष्ठ प्रश्न **3 (तीन)** अंकों का है। प्रत्येक गलत उत्तर के लिए **1 (एक)** अंक काटा जायेगा। प्रत्येक अनुत्तरित प्रश्न का प्राप्तांक शून्य होगा। यदि वस्तुनिष्ठ प्रश्नों के एकाधिक वैकल्पिक उत्तर सही उत्तर के निकट प्रतीत हों, तो निकटतम सही उत्तर दें।

**(3)** Answer only **5** Short Answer Questions. Each question carries **16 (Sixteen)** marks and should be answered in **150-200** words. Blank **5 (Five)** pages attached with this booklet shall only be used for the purpose. Answer each question on separate page, after writing Question No.

केवल **5 (पाँच)** लघुउत्तरीय प्रश्नों के उत्तर दें। प्रत्येक प्रश्न **16 (सोलह)** अंकों का है तथा उनका उत्तर **150-200** शब्दों के बीच होना चाहिए। इसके लिए इस पुस्तिका में लगे हुए सादे **5 (पाँच)** पृष्ठों का ही उपयोग आवश्यक है। प्रत्येक प्रश्न का उत्तर एक नए पृष्ठ से, प्रश्न संख्या लिखकर शुरू करें।

06. Deficiency of which of the following mineral nutrients induces dental carries and mottled enamel ?
- (1) Molybdenum (2) Cobalt  
(3) Fluorine (4) Iron
07. Oxidation number of Iodine is highest in which compound
- (1) KI (2) KI<sub>3</sub>  
(3) IF<sub>5</sub> (4) KIO<sub>4</sub>
08. In which part of our body, antibodies are formed
- (1) Brain (2) Lungs  
(3) Bone marrow (4) Spleen
09. Which of the following sensations is not generated by impulses initiated in naked nerve endings ?
- (1) Touch (2) Pain  
(3) Cold (4) Smell
10. Sound cannot travel through :
- (1) Air (2) Water  
(3) Fire (4) Vacuum
11. The stages of a malignant disease (cancer) is recorded using the symbols 0, I, II, III, IV. We say that the scale used is;
- (1) Alphanumeric (2) Numerical  
(3) Ordinal (4) Nominal

12. If the average of a series of values is 10 and their variance is 4, then the coefficient of variation is :
- (1) 40%                      (2) 20%                      (3) 80%                      (4) 10%
13. The median of a Series of numerical values is :
- (1) A value for which half of the values are higher and half of the values are lower
- (2) The value located exactly midway between the minimum and maximum of the series
- (3) The most commonly encountered values among the series
- (4) A measure of the eccentricity of the series
14. The quartile deviation of a series of values is :
- (1) The numeric value for which two quarter of the series' values are lower
- (2) The value of the ordered series located at 75% of the number of values in the series
- (3) The value in the ordered series located at 25% of the number of values in the series
- (4) The numeric value for which a quarter of the series' values are higher
15. If on a group of 457 patients, for a risk factor we calculated a Relative Risk  $RR=12.74$ , the possibility of developing the disease being investigated is :
- (1) Not relevant as  $RR$  is less than 100
- (2) Very small when exposed to the factor
- (3) The same in the case of exposure in the case of non-exposure
- (4) Very high when exposed to the factor

16. The Sensitivity (SN) of a clinical trial :
- (1) Is the ratio of sick patients, diagnosed as positive and the total number of sick patients.
  - (2) Is the ratio of healthy subjects, diagnosed as negative and the total number of healthy subjects
  - (3) Is the ratio of sick patients, diagnosed as negative and the total number of patients.
  - (4) Is the ratio of sick patients, diagnosed as negative and the total number of healthypersons
17. The Confidence Interval for the mean, calculated for a series of values, has the interpretation :
- (1) The true mean, the one that approximates the population's mean, is almost certain inside the confidence interval
  - (2) The true variance is almost certain inside the confidence interval
  - (3) The true median is almost certain inside the confidence interval
  - (4) It is an interval that contains almost all the values of the series
18. The result of a statistical test, denoted  $p$ , shall be interpreted as follows :
- (1) The null hypothesis  $H_0$  is accepted if  $p < 0.05$
  - (2) The null hypothesis  $H_0$  is rejected if  $p > 0.05$
  - (3) The alternate hypothesis  $H_1$  is rejected if  $p > 0.5$
  - (4) The null hypothesis  $H_0$  is rejected if  $p < 0.05$
19. Helicobacter Pylori is :
- |                           |                           |
|---------------------------|---------------------------|
| (1) Gram positive bacilli | (2) Gram negative bacilli |
| (3) Gram positive cocci   | (4) Gram negative cocci   |



- 20.** Most probable route of transmission of *Helicobacter pylori* :
- (1) Parenteral (2) Faeco-oral  
(3) Blood transfusion (4) Placental
- 21.** Which of the following virus is associated with owl's eye inclusion body ?
- (1) Herpes simplex virus (2) Cytomegalovirus  
(3) Epstein bar virus (4) Adenovirus
- 22.** Faeco oral route of transmission is seen in :
- (1) Hepatitis A virus (2) Hepatitis B virus  
(3) Hepatitis C virus (4) Hepatitis D virus
- 23.** Vaccine is not available for which of the following viruses :
- (1) Hepatitis A virus (2) Hepatitis B virus  
(3) Hepatitis C virus (4) Varicella zoster virus
- 24.** Which of the following statement is false regarding hepatitis A virus ?
- (1) It is single stranded positive sense RNA virus  
(2) Vaccine is given as intramuscular injection  
(3) It is blood born infection  
(4) Commonly presents with jaundice
- 25.** True statement regarding hepatitis B virus :
- (1) It causes both acute and chronic hepatitis  
(2) It is single stranded DNA virus  
(3) It has single genotype  
(4) It's genome contains 9600 nucleotides

26. Ampulla of Vater is located in :

- |             |              |
|-------------|--------------|
| (1) Jejunum | (2) Ileum    |
| (3) Stomach | (4) Duodenum |

27. Digestive juice is secreted by :

- |              |                     |
|--------------|---------------------|
| (1) Spleen   | (2) Esophagus       |
| (3) Pancreas | (4) Large intestine |

28. Which of the following is not a inflammatory mediator ?

- |                                  |                     |
|----------------------------------|---------------------|
| (1) Interleukins                 | (2) Lymphokines     |
| (3) Tumour necrosis factor-alpha | (4) Cholecystokinin |

29. Vitamin A deficiency causes all except :

- |                               |                     |
|-------------------------------|---------------------|
| (1) Follicular hyperkeratosis | (2) Excessive bleed |
| (3) Bitot's spot              | (4) Night blindness |

30. Pellagra is caused by deficiency of :

- |              |                |
|--------------|----------------|
| (1) Niacin   | (2) Riboflavin |
| (3) Thiamine | (4) Folic Acid |

31. Which of the following is not an antioxidant ?

- |               |                 |
|---------------|-----------------|
| (1) Vitamin A | (2) Vitamin E   |
| (3) Selenium  | (4) Vitamin B12 |

32. Metastasis term is usually used with :

- |                |                          |
|----------------|--------------------------|
| (1) Malignancy | (2) Chronic constipation |
| (3) Diarrhoea  | (4) Pancreatitis         |

33. Bile juice is stored in :

- |                      |                     |
|----------------------|---------------------|
| (1) Common bile duct | (2) Gall bladder    |
| (3) Liver            | (4) Small intestine |

34. Most common cause of diarrhoea in children :

- |                     |                            |
|---------------------|----------------------------|
| (1) Rota virus      | (2) Adeno virus            |
| (3) Cytomegalovirus | (4) Varicella zoster virus |

35. Age of infant is

- |                |                |
|----------------|----------------|
| (1) <1 months  | (2) <6 months  |
| (3) <12 months | (4) <18 months |

36. Longest bone in human body :

- |           |             |
|-----------|-------------|
| (1) Femur | (2) Tibia   |
| (3) Ulna  | (4) Humerus |

37. Power house of cell is :

- |              |                  |
|--------------|------------------|
| (1) Ribosome | (2) Golgi body   |
| (3) DNA      | (4) Mitochondira |

38. Which of the following is not secreted by stomach ?

- |                       |                      |
|-----------------------|----------------------|
| (1) Hydrochloric acid | (2) Pepsinogen       |
| (3) Sulphuric acid    | (4) Intrinsic factor |

**Short Answer Questions**

**Note:** Attempt any **five** questions. Write answer in **150-200** words. Each question carries **16** marks. Answer each question on separate page, after writing Question Number.

01. What are the phases of cell division ?
02. Name of various enzymes with source of secretion in digestion.
03. *Life cycle of Entamoebahistolytica.*
04. Name of various protozoans causing diarrhoea in humans.
05. What are the components of metabolic syndrome ?
06. Draw a schematic diagram of HIV virion.
07. Discuss briefly the life cycle of Ascaris.
08. What are the worms infecting humans ?
09. Discuss briefly about nutritional care in liver disease.
10. Fat soluble vitamin deficiency.

39. Which of the following is a vestigial organ ?

- |              |             |
|--------------|-------------|
| (1) Appendix | (2) Jejunum |
| (3) Ileum    | (4) Rectum  |

40. Clotting factor VIII deficiency causes :

- |                 |                |
|-----------------|----------------|
| (1) Thalassemia | (2) Leukaemia  |
| (3) Hemobilia   | (4) Hemophilia |

Question No.

Page for Short Answer

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Question No.

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**ROUGH WORK**

रफ़ कार्य

**ROUGH WORK**

रफ़ कार्य

## अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली-काली बाल-प्वाइंट पेन से ही लिखें)

1. प्रश्न पुस्तिका मिलने के 30 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।
5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ० एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्नपुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्नपुस्तिका पर अनुक्रमांक और ओ० एम० आर० पत्र संख्या की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिए आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
9. प्रत्येक प्रश्न के उत्तर के लिए केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
10. ध्यान दें कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो संबंधित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ कार्य के लिए प्रश्न-पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा उत्तर-पुस्तिका के अंतिम पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त केवल ओ एम आर उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की, भागी होगा/होगी।